



## **Cisco**

### **Exam Questions 300-410**

Implementing Cisco Enterprise Advanced Routing and Services (ENARSI)

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**NEW QUESTION 1**

- (Exam Topic 3)

A network administrator must optimize the segment size of the TCP packet on the DMVPN IPsec protected tunnel interface, which carries application traffic from the head office to a designated branch. The TCP segment size must not overwhelm the MTU of the outbound link. Which configuration must be applied to the router to improve the application performance?

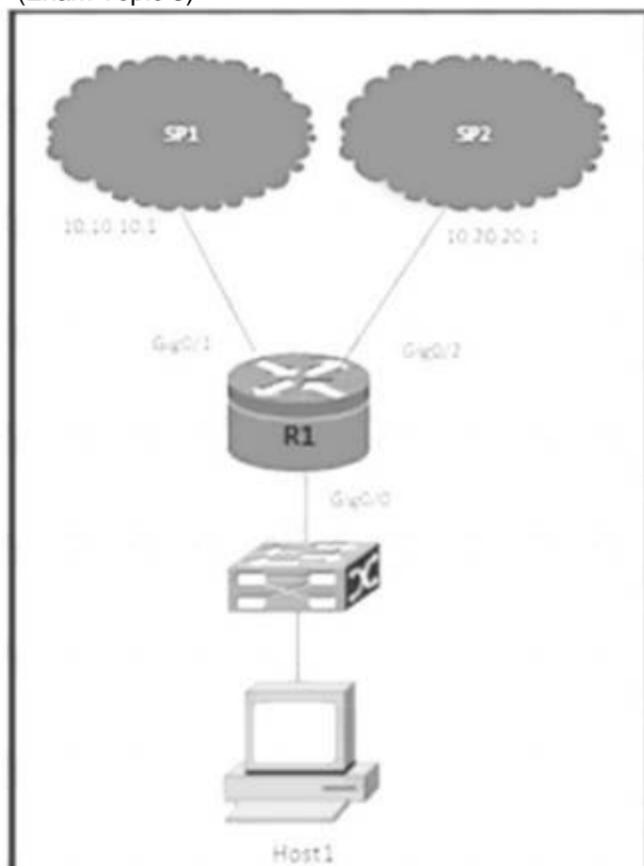
- interface tunnel30  
ip mtu 1400  
ip tcp packet-size 1360  
!  
crypto ipsec fragmentation after-encryption
- interface tunnel30  
ip mtu 1400  
ip tcp payload-size 1360  
!  
crypto ipsec fragmentation before-encryption
- interface tunnel30  
ip mtu 1400  
ip tcp adjust-mss 1360  
!  
crypto ipsec fragmentation after-encryption
- interface tunnel30  
ip mtu 1400  
ip tcp max-segment 1360  
!  
crypto ipsec fragmentation before-encryption

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

**Answer: C**

**NEW QUESTION 2**

- (Exam Topic 3)



Refer to the exhibit. R1 uses SP1 as the primary path. A network engineer must force all SSH traffic generated from R1 toward SP2. Which configuration accomplishes the task?

- A)
 

```
ip access-list extended match_SSH
 permit tcp any any eq 22
 !
route-map PBR_SSH permit 10
 match ip address match_SSH
 set ip next-hop 10.20.20.1
 !
interface Gig0/0
 ip policy route-map PBR_SSH
```
- B)

```
ip access-list extended match_SSH
 permit tcp any any eq 22
 !
route-map PBR_SSH permit 10
 match ip address match_SSH
 set ip next-hop 10.10.10.1
 !
ip local policy route-map PBR_SSH
```

C)

```
ip access-list extended match_SSH
 permit tcp any any eq 22
 !
route-map PBR_SSH permit 10
 match ip address match_SSH
 set ip next-hop 10.20.20.1
 !
ip local policy route-map PBR_SSH
```

D)

```
ip access-list extended match_SSH
 permit tcp any any eq 22
 !
route-map PBR_SSH permit 10
 match ip address match_SSH
 set ip next-hop 10.20.20.1
 !
interface Gig0/1
 ip policy route-map PBR_SSH
```

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

**Answer: C**

### NEW QUESTION 3

- (Exam Topic 3)

Refer to the exhibit.

```
!-- ACL for CoPP Routing class-map
 !
access-list 120 permit tcp any gt 1024 eq bgp log
access-list 120 permit tcp any bgp gt 1024 established
access-list 120 permit tcp any gt 1024 eq 639
access-list 120 permit tcp any eq 639 gt 1024 established
access-list 120 permit tcp any eq 646
access-list 120 permit udp any eq 646
access-list 120 permit ospf any
access-list 120 permit ospf any host 224.0.0.5
access-list 120 permit ospf any host 224.0.0.6
access-list 120 permit eigrp any
access-list 120 permit eigrp any host 224.0.0.10
access-list 120 permit udp any any eq pim-auto-rp
```

The control plane is heavily impacted after the CoPP configuration is applied to the router. Which command removal lessens the impact on the control plane?

- A. access-list 120 permit udp any any eq pim-auto-rp
- B. access-list 120 permit eigrp any host 224.0.0.10
- C. access-list 120 permit ospf any
- D. access-list 120 permit tcp any gt 1024 eq bgp log

**Answer: A**

### NEW QUESTION 4

- (Exam Topic 3)

Refer to the exhibit.

```

R2#show ip eigrp neighbors
IP-EIGRP neighbors for process 100
H  Address          Interface      Hold Uptime    SRTT  RTO  Q  Seq
   (sec)              (ms)          Cnt Num
1  192.168.10.1      Ser1/0        12 00:00:39    1  5000 2  0
*Jan 1 15:40:21.295: %DUAL-5-NBRCHANGE: IP-EIGRP(0) 100: Neighbor 192.168.10.1 (Serial1/0) is down: retry limit exceeded
*Jan 1 15:40:51.567: %DUAL-5-NBRCHANGE: IP-EIGRP(0) 100: Neighbor 192.168.10.1 (Serial1/0) is up: new adjacency
*Jan 1 15:42:11.107: %DUAL-5-NBRCHANGE: IP-EIGRP(0) 100: Neighbor 192.168.10.1 (Serial1/0) is down: retry limit exceeded
*Jan 1 15:42:14.879: %DUAL-5-NBRCHANGE: IP-EIGRP(0) 100: Neighbor 192.168.10.1 (Serial1/0) is up: new adjacency

R1#show ip eigrp neighbors
IP-EIGRP neighbors for process 100

R1 Configuration:
key chain cisco
key 2
  key-string abc
!
interface Loopback0
ip address 10.10.1.1 255.255.255.0
!
interface Serial1/0
ip address 192.168.10.1 255.255.255.0
ip authentication mode eigrp 100 md5
ip authentication key-chain eigrp 100 cisco
serial restart-delay 0
!
router eigrp 100
network 10.10.1.0 0.0.0.255
network 192.168.10.0
no auto-summary

R2 configuration:
key chain cisco
key 1
  key-string 123
key 2
  key-string abc
!
interface Loopback0
ip address 10.10.2.2 255.255.255.0
!
interface Serial1/0
ip address 192.168.10.2 255.255.255.0
ip authentication mode eigrp 100 md5
ip authentication key-chain eigrp 100 cisco
no fair-queue
!
router eigrp 100
network 10.10.2.0 0.0.0.255
network 192.168.10.0
no auto-summary

```

R1 and R2 are configured for EIGRP peering using authentication and the neighbors failed to come up. Which action resolves the issue?

- A. Configure a matching key-id number on both routers
- B. Configure a matching lowest key-id on both routers
- C. Configure a matching key-chain name on both routers
- D. Configure a matching authentication type on both router

**Answer: A**

**NEW QUESTION 5**

- (Exam Topic 3)

The network administrator configured CoPP so that all HTTP and HTTPS traffic from the administrator device located at 172.16.1.99 toward the router CPU is limited to 500 kbps. Any traffic that exceeds this limit must be dropped.

```

access-list 100 permit ip host 172.16.1.99 any
!
class-map CM-ADMIN match access-group 100
!
policy-map PM-COPP class CM-ADMIN
police 500000 conform-action transmit
!
interface E0/0
service-policy input PM-COPP

```

CoPP failed to capture the desired traffic and the CPU load is getting higher. Which two configurations resolve the issue? (Choose two.)

- A. interface E0/0no service-policy input PM-COPP!control-planeservice-policy input PM-COPP
- B. policy-map PM-COPP class CM-ADMINno police 500000 conform-action transmit police 500 conform-action transmit!control-planeservice-policy input PM-COPP
- C. no access-list 100access-list 100 permit tcp host 172.16.1.99 any eq 80
- D. no access-list 100access-list 100 permit tcp host 172.16.1.99 any eq 80access-list 100 permit tcp host 172.16.1.99 any eq 443
- E. policy-map PM-COPP class CM-ADMINno police 500000 conform-action transmit police 500 conform-action transmit

**Answer: A**

**NEW QUESTION 6**

- (Exam Topic 3)

Refer to the exhibit.

```

aaa new-model
aaa group server radius RADIUS-SERVERS
aaa authentication login default group RADIUS-SERVERS local
aaa authentication enable default group RADIUS-SERVERS enable
aaa authorization exec default group RADIUS-SERVERS if-authenticated
aaa authorization network default group RADIUS-SERVERS if-authenticated
aaa accounting send stop-record authentication failure
aaa session-id common
!
line con 0
logging synchronous
stopbits 1
line vty 0 4
logging synchronous
transport input ssh

```

A network administrator successfully logs in to a switch using SSH from a (RADIUS server When the network administrator uses a console port to access the switch the RADIUS server returns shell:priv-lvl=15" and the switch asks to enter the enable command \ the command is entered, it gets rejected. Which command set is used to troubleshoot and resolve this issue?

- A. line con 0aaa authorization console authorization exec!line vty 0 4 transport input ssh
- B. line con 0aaa authorization console!line vty 0 4 authorization exec
- C. line con 0aaa authorization console priv15!line vty 0 4 authorization exec
- D. line con 0aaa authorization console authorization priv15!line vty 0 4 transport input ssh

**Answer:** A

#### NEW QUESTION 7

- (Exam Topic 3)

Refer to the exhibit.

```

R1(config)#ip access-list standard EIGRP-FILTER
R1(config-std-nacl)#permit 10.10.10.0 0.0.0.255
R1(config)#router eigrp 10
R1(config-router)#distribute-list route-map EIGRP in
!
R1(config)#route-map EIGRP permit 10
R1(config-route-map)#match ip address EIGRP-FILTER
!
R1#show ip route eigrp
D      10.10.10.0/24

```

An engineer must filter incoming EIGRP updates to allow only a set of specific prefixes. The distribute list is tested, and it filters out all routes except network 10.10.10.0/24. How should the engineer temporarily allow all prefixes to be learned by the routers again without adjusting the existing access list?

- A. A permit 20 statement should be added before completing the ACL with the required prefixes, and then the permit 20 statement can be removed.
- B. A permit any statement should be added before completing the ACL with the required prefixes and then the permit any statement can be removed.
- C. A continue statement should be added within the permit 10 statement before completing the ACL with the required prefixes, and then the continue statement can be removed.
- D. An extended access list must be used instead of a standard access list to accomplish the task

**Answer:** C

#### NEW QUESTION 8

- (Exam Topic 3)

Refer to the exhibit.

```

ipv6 access-list INTERNET
permit ipv6 2001:DB8:AD59:BA21::/64 2001:DB8:C0AB:BA14::/64
permit tcp 2001:DB8:AD59:BA21::/64 2001:DB8:C0AB:BA13::/64 eq telnet
permit tcp 2001:DB8:AD59:BA21::/64 any eq http
permit ipv6 2001:DB8:AD59::/48 any
deny ipv6 any any log

```

While monitoring VTY access to a router, an engineer notices that the router does not have any filter and anyone can access the router with username and password even though an ACL is configured. Which command resolves this issue?

- A. access-class INTERNET in
- B. ip access-group INTERNET in
- C. ipv6 traffic-filter INTERNET in
- D. ipv6 access-class INTERNET in

**Answer:** D

**NEW QUESTION 9**

- (Exam Topic 3)

What are the two goals of micro BFD sessions? (Choose two.)

- A. The high bandwidth member link of a link aggregation group must run BFD
- B. Run the BFD session with 3x3 ms hello timer
- C. Continuity for each member link of a link aggregation group must be verified
- D. Any member link on a link aggregation group must run BFD
- E. Each member link of a link aggregation group must run BFD.

**Answer: CE**

**Explanation:**

[https://www.cisco.com/c/en/us/td/docs/ios-xml/ios/iproute\\_bfd/configuration/xr-16-8/irb-xr-16-8-book/irb-micr](https://www.cisco.com/c/en/us/td/docs/ios-xml/ios/iproute_bfd/configuration/xr-16-8/irb-xr-16-8-book/irb-micr)

**NEW QUESTION 10**

- (Exam Topic 3)



Refer to the exhibit. An engineer is investigating an OSPF issue reported by the Cisco DNA Assurance Center. Which action resolves the issue?

- A. One of the neighbor links is down Bring the interface up by running shut and no shut
- B. One of the interfaces is using the wrong MTU Match interface MTU on both links
- C. An ACL entry blocking multicast on the interfaces Allow multicast through the interface ACL
- D. One of the interfaces is using the wrong authentication Match interface authentication on both links

**Answer: B**

**NEW QUESTION 10**

- (Exam Topic 3)

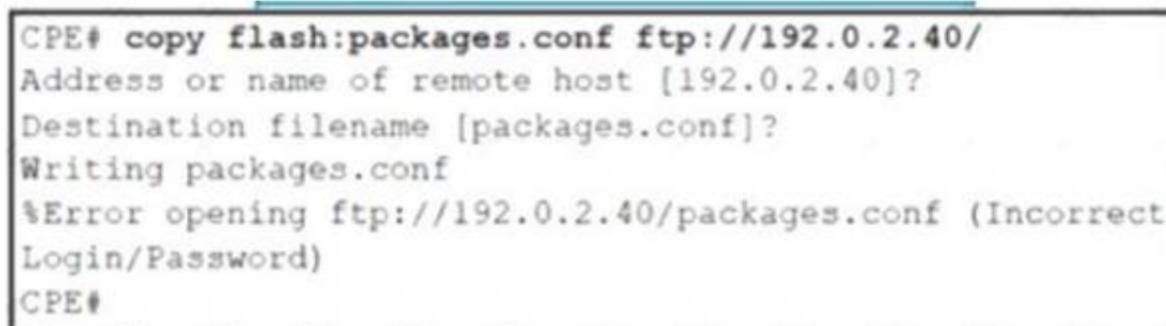
What is a function of BFD?

- A. peer recovery after a Layer 3 protocol adjacency failure
- B. peer recovery after a Layer 2 adjacency failure
- C. failure detection independent of routing protocols and media types
- D. failure detection dependent on routing protocols and media types

**Answer: D**

**NEW QUESTION 14**

- (Exam Topic 3)



Refer to the exhibit. An administrator must upload the packages conf file to an FTP server. However, the FTP server rejected anonymous service and required users to authenticate. What are the two ways to resolve the issue? (Choose two.)

- A. Use the ftp username and ip ftp password configuration commands to specify valid FTP server credentials.
- B. Use the copy flash:packages.conf scp: command instead and enter the FTP server credentials when prompted.
- C. Enter the FTP server credentials directly in the FTP URL using the ftp://username:password@192.0.2.40/ syntax.
- D. Create a user on the router matching the username and password on the FTP server and log in before attempting the copy.
- E. Use the copy flash:packages.conf ftp: command instead and enter the FTP server credentials when prompted.

**Answer: AC**

**NEW QUESTION 18**

- (Exam Topic 3)

```

R1
service timestamps debug datetime msec
service timestamps log datetime msec
|
clock timezone EET 2 0
|
end

R1#show clock
*23:50:13.297 EET Sat Nov 14 2020

R1#
*Nov 14 21:49:59.607: IP: s=10.1.1.1 (local), d=224.0.0.5 (Ethernet0/0), len 80, local feature, Logical MN local(14), rtype 0,
forus FALSE, sendself FALSE, mtu 0, fwdchk FALSE
*Nov 14 21:49:59.607: IP: s=10.1.1.1 (local), d=224.0.0.5 (Ethernet0/0), len 80, sending broad/multicast
*Nov 14 21:49:59.607: IP: s=10.1.1.1 (local), d=224.0.0.5 (Ethernet0/0), len 80, sending full packet
*Nov 14 21:50:00.336: IP: s=10.2.2.4 (Ethernet0/1), d=224.0.0.5, len 80, rcvd 0
*Nov 14 21:50:00.336: IP: s=10.2.2.4 (Ethernet0/1), d=224.0.0.5, len 80, input feature, packet consumed, MCI Check(101),
rtype 0, forus FALSE, sendself FALSE, mtu 0, fwdchk FALSE
    
```

Refer to the exhibit. An engineer cannot determine the time of the problem on R1 due to a mismatch between the router local clock and logs. Which command synchronizes the time between new log entries and the local clock on R1?

- A. service timestamps debug datetime msec show.timezone
- B. service timestamps log datetime localtime msec
- C. service timestamps datebug datetime localtime msec
- D. service timestamps log datetime msec show-timezone

**Answer: B**

**NEW QUESTION 19**

- (Exam Topic 3)

An engineer must override the normal routing behavior of a router for Telnet traffic that is destined to 10.10.10.10 from 10.10.1.0/24 via a next hop of 10.4.4.4, which is directly connected to the router that is connected to the 10.1.1.0/24 subnet Which configuration reroutes traffic according to this requirement?

```

A. access-list 100 permit tcp 10.10.1.0 0.0.0.255 host 10.10.10.10 eq 23
   |
   | route-map POLICY permit 10
   | match ip address 100
   | set ip next-hop recursive 10.4.4.4
   |
B. access-list 100 permit tcp 10.10.1.0 0.0.0.255 host 10.10.10.10 eq 23
   |
   | route-map POLICY permit 10
   | match ip address 100
   | set ip next-hop 10.4.4.4
   | route-map POLICY permit 20
   |
C. access-list 100 deny tcp 10.10.1.0 0.0.0.255 host 10.10.10.10 eq 23
   |
   | route-map POLICY permit 10
   | match ip address 100
   | set ip next-hop 10.4.4.4
   | route-map POLICY permit 20
   |
D. access-list 100 permit tcp 10.10.1.0 0.0.0.255 host 10.10.10.10 eq 23
   |
   | route-map POLICY permit 10
   | match ip address 100
   | set ip next-hop recursive 10.4.4.4
   | route-map POLICY permit 20
   |
    
```

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

**Answer: B**

**NEW QUESTION 20**

- (Exam Topic 3)

Refer to the exhibit.

```
snmp-server community Public RO 90
snmp-server community Private RW 90
R1#show access-list 90
Standard IP access list 90
  permit 10.11.110.11
  permit 10.11.111.12
```

```
Nov 6 06:45:11: %SNMP-3-AUTHFAIL: Authentication failure for SNMP req from host
10.11.110.12
Nov 6 06:45:12: %SNMP-3-AUTHFAIL: Authentication failure for SNMP req from host
10.11.110.12
```

A network administrator notices these console messages from host 10.11.110.12 originating from interface E1/0. The administrator considers this an unauthorized attempt to access SNMP on R1. Which action prevents the attempts to reach R1 E1/0?

- A. Configure IOS control plane protection using ACL 90 on interface E1/0
- B. Configure IOS management plane protection using ACL 90 on interface E1/0
- C. Create an inbound ACL on interface E1/0 to deny SNMP from host 10.11.110.12
- D. Add a permit statement including the host 10.11.110.12 into ACL 90

**Answer: C**

### NEW QUESTION 23

- (Exam Topic 3)

What are two characteristics of IPv6 Source Guard? (Choose two.)

- A. requires IPv6 snooping on Layer 2 access or trunk ports
- B. used in service provider deployments to protect DDoS attacks
- C. requires the user to configure a static binding
- D. requires that validate prefix be enabled
- E. recovers missing binding table entries

**Answer: DE**

### Explanation:

IPv6 Source Guard uses the IPv6 First-Hop Security Binding Table to drop traffic from unknown sources or bogus IPv6 addresses not in the binding table. The switch also tries to recover from lost address information, querying DHCPv6 server or using IPv6 neighbor discovery to verify the source IPv6 address after dropping the offending packet(s).

Reference: <https://blog.ipSPACE.net/2013/07/first-hop-ipv6-security-features-in.html>

### NEW QUESTION 25

- (Exam Topic 3)

An engineer notices that R1 does not hold enough log messages to identify the root cause during troubleshooting. Which command resolves this issue?

- A. #logging buffered 4096 critical
- B. (config)#logging buffered 16000 informational
- C. #logging buffered 16000 critical
- D. (config)#logging buffered 4096 informational

**Answer: B**

### NEW QUESTION 27

- (Exam Topic 3)

```
R4#
interface FastEthernet1/0
ip address 10.1.1.14 255.255.255.252
ip access-group VENDOR in
ip authentication mode eigrp 100 md5
ip authentication key-chain eigrp 100 EIGRPKEY
speed 100
full-duplex
!
interface loopback 100
ip address 10.199.100.1 255.255.255.255
!
router eigrp 100
network 10.1.1.8 0.0.0.3
network 10.1.1.12 0.0.0.3
no auto-summary
eigrp router-id 100.4.4.4
neighbor 10.1.1.13 FastEthernet1/0
redistribute connected
!
router bgp 65001
no synchronization
bgp log-neighbor-changes
network 100.4.4.4 mask 255.255.255.255
neighbor 10.1.1.13 remote-as 65001
no auto-summary
!
ip access-list extended VENDOR
permit tcp 192.168.32.0 0.0.7.255 host 10.199.100.1 eq 22 time-range VENDOR_ACCESS
!
time-range VENDOR_ACCESS
periodic weekend 22:00 to 23:00
```

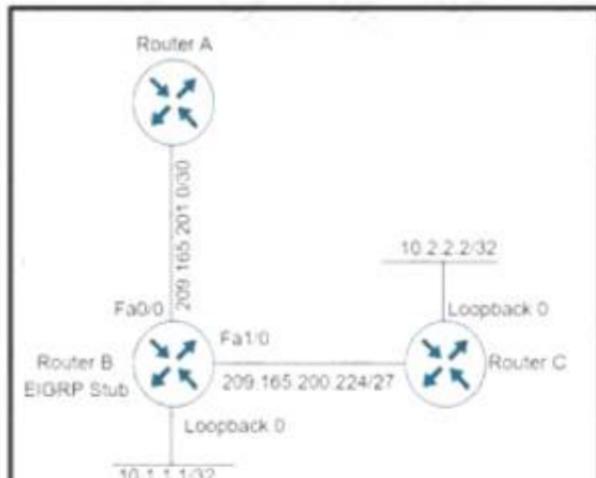
Refer to the exhibit A network engineer received a call from the vendor for a failed attempt to remotely log in to their managed router loopback interface from 192.168.40.15 Which action must the network engineer take to resolve the issue?

- A. The IP access list VENDOR must be applied to interface loopback 100
- B. The time-range configuration must be changed to use absolute instead of periodic
- C. The EIGRP configuration must be updated to include a network statement for loopback 100
- D. The source IP summarization must be updated to include the vendor source IP address

Answer: C

**NEW QUESTION 29**

- (Exam Topic 3)



```
RouterA#sh ip route eigrp
Gateway of last resort is not set
10.0.0.0/32 is subnetted, 1 subnets
D   10.1.1.1 [90/156160] via 209.165.201.2, 00:00:06, FastEthernet0/0

****Configuration of RouterB****

interface Loopback0
ip address 10.1.1.1 255.255.255.255
!
interface FastEthernet0/0
ip address 209.165.201.2 255.255.255.252
!
interface FastEthernet1/0
ip address 209.165.200.225 255.255.255.224
!
router eigrp 100
network 10.1.1.0 0.0.0.3
network 209.165.201.0 0.0.0.3
eigrp stub connected static
!
```

```

interface Loopback0
ip address 10.1.1.1 255.255.255.255
!
interface FastEthernet0/0
ip address 209.165.201.2 255.255.255.252
!
interface FastEthernet1/0
ip address 209.165.200.225 255.255.255.224
!
router eigrp 100
network 10.1.1.1 10.1.1.1 255.255.255.255
network 209.165.201.0 0.0.0.3
eigrp stub connected static
!
ip route 10.2.2.2 255.255.255.255 209.165.200.226
    
```

Refer to the exhibit. Not all connected and static routes of router B are received by router A even though EIGRP neighborship is established between the routers. Which configuration resolves the issue?

- A)
 

```

router eigrp 100
network 209.165.200.224 0.0.0.7
redistribute static metric 1000 1 255 1 1500
eigrp stub connected
            
```
- B)
 

```

router eigrp 100
network 209.165.200.224 0.0.0.7
            
```
- C)
 

```

router eigrp 100
network 209.165.200.224 0.0.0.31
redistribute static metric 1000 1 255 1 1500
            
```
- D)
 

```

router eigrp 100
network 209.165.200.224 0.0.0.7
redistribute static metric 1000 1 255 1 1500
eigrp stub static
            
```

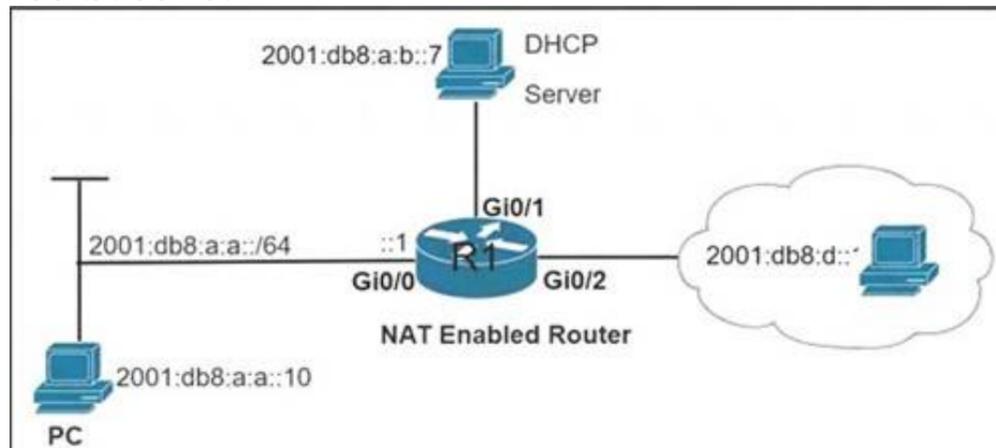
- A. Option A
- B. Option B
- C. Option C
- D. Option D

**Answer: D**

**NEW QUESTION 30**

- (Exam Topic 3)

Refer to the exhibit.



```
C:\PC> ping 2001:db8:a:b::7
Pinging 2001:db8:a:b::7 with 32 bytes of data:
Reply from 2001:db8:a:b::7: time=46ms
Reply from 2001:db8:a:b::7: time=40ms
Reply from 2001:db8:a:b::7: time=40ms
Reply from 2001:db8:a:b::7: time=40ms
Ping statistics for 2001:db8:a:b::7:
Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
Minimum = 40ms, Maximum = 46ms, Average = 41ms

R1# telnet 2001:db8:a:b::7
Trying 2001:DB8:A:B::7 ... Open
User Access Verification
Password:

R1# show ipv6 access-list TSHOOT
IPv6 access list TSHOOT
deny tcp any host 2001:DB8:A:B::7 eq telnet (6 matches) sequence 10
permit tcp host 2001:DB8:A:A::10 host 2001:DB8:A:B::7 eq telnet sequence 20
permit tcp host 2001:DB8:A:A::10 host 2001:DB8:D::1 eq www sequence 30
permit ipv6 2001:DB8:A:A::/64 any (67 matches) sequence 40
```

An engineer is troubleshooting a failed Telnet session from PC to the DHCP server. Which action resolves the issue?

- A. Remove sequence 30 and add it back to the IPv6 traffic filter as sequence 5.
- B. Remove sequence 20 and add it back to the IPv6 traffic filter as sequence 5.
- C. Remove sequence 10 to add the PC source IP address and add it back as sequence 10.
- D. Remove sequence 20 for sequence 40 in the access list to allow Telnet.

**Answer: B**

**NEW QUESTION 33**

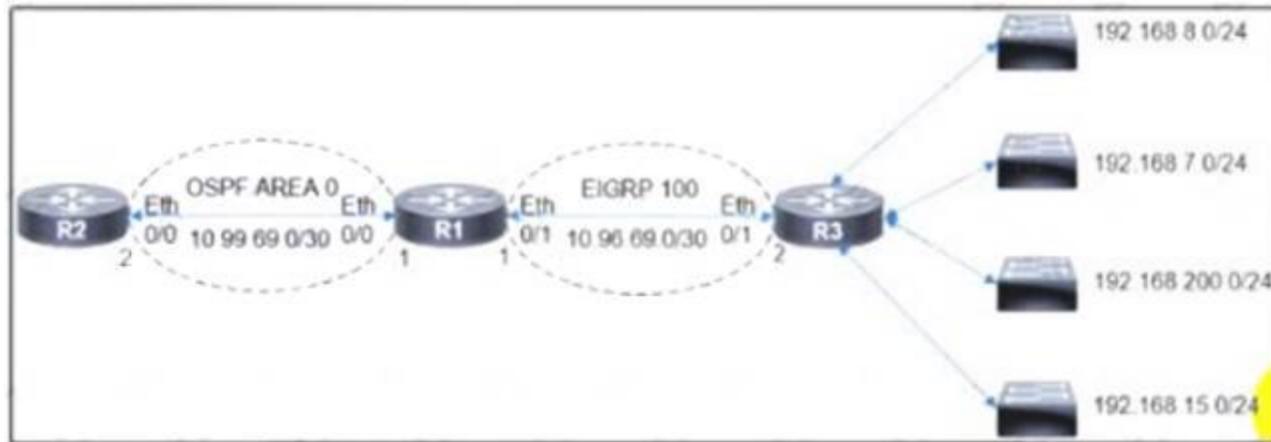
- (Exam Topic 3)

- A. Redistribute the static metric in EIGRP.
- B. Add the eigrp stub connected static command.
- C. Redistribute the connected metric in EIGRP.
- D. Remove the eigrp stub connected command.

**Answer: B**

**NEW QUESTION 36**

- (Exam Topic 3)



```

R1#show route-map
route-map FROM->EIGRP, permit, sequence 10
  Match clauses:
    ip address (access-lists): 10
  Set clauses:
    Policy routing matches: 0 packets, 0 bytes
R1#show run | sec router
router eigrp 100
network 10.96.69.0 0.0.0.3
no auto-summary
eigrp router-id 1.1.1.1
router ospf 100
router-id 1.1.1.1
log-adjacency-changes
redistribute eigrp 100 subnets route-map FROM->EIGRP
network 10.99.69.0 0.0.0.3 area 0
R1#show ip access-list
Standard IP access list 10
 10 permit 192.168.16.0, wildcard bits 0.0.3.255
 11 permit 192.168.0.0, wildcard bits 0.0.7.255
 20 deny any
    
```

Refer to the exhibit The engineer configured route redistribution in the network but soon received reports that R2 cannot access 192.168.7.0/24 and 192.168.15.0/24 subnets Which configuration resolves the issue?

- ```

R1(config)#ip access-list standard 10
R1(config-std-nacl)#no 10 permit
R1(config-std-nacl)#no 11 permit
R1(config-std-nacl)#10 permit 192.168.0.0 0.0.3.255
R1(config-std-nacl)#11 permit 192.168.8.0 0.0.3.255
    
```
- ```

R1(config)#ip access-list standard 10
R1(config-std-nacl)#no 10 permit
R1(config-std-nacl)#no 11 permit
R1(config-std-nacl)#10 permit 192.168.0.0 0.0.7.255
R1(config-std-nacl)#11 permit 192.168.8.0 0.0.3.255
    
```
- ```

R1(config)#ip access-list standard 10
R1(config-std-nacl)#no 10 permit
R1(config-std-nacl)#no 11 permit
R1(config-std-nacl)#10 permit 192.168.0.0 0.0.3.255
R1(config-std-nacl)#11 permit 192.168.8.0 0.0.7.255
    
```
- ```

R1(config)#ip access-list standard 10
R1(config-std-nacl)#no 10 permit
R1(config-std-nacl)#no 11 permit
R1(config-std-nacl)#10 permit 192.168.4.0 0.0.3.255
R1(config-std-nacl)#11 permit 192.168.12.0 0.0.3.255
    
```

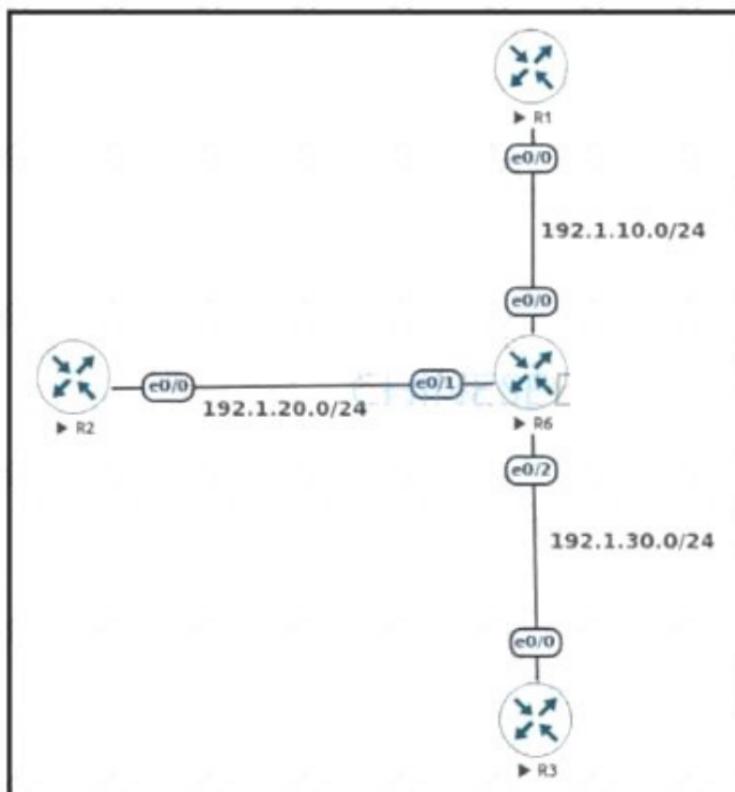
- A. Option A
- B. Option B
- C. Option C
- D. Option D

**Answer: D**

**NEW QUESTION 39**

- (Exam Topic 3)

Refer to the exhibit.



An engineer must configure DMVPN Phase 3 hub-and-spoke topology to enable a spoke-to-spoke tunnel. Which NHRP configuration meets the requirement on R6?

- Interface Tunnel1  
 ip address 192.168.1.1 255.255.255.0  
 tunnel source e 0/0  
 tunnel mode gre multipoint  
 ip nhrp network-id 1
- interface Tunnel1  
 ip nhrp authentication Cisco123  
 ip nhrp map multicast dynamic  
 ip nhrp network-id 1  
 ip nhrp holdtime 300  
 ip nhrp redirect
- interface Tunnel1  
 ip nhrp authentication Cisco123  
 ip nhrp map multicast dynamic  
 ip nhrp network-id 1  
 ip nhrp holdtime 300  
 ip nhrp shortcut
- Interface Tunnel 1  
 ip address 192.168.1.1 255.255.255.0  
 tunnel source e 0/1  
 tunnel mode gre multipoint  
 ip nhrp network-id 1  
 ip nhrp map 192.168.1.2 192.1.20.2

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

Answer: B

**NEW QUESTION 42**

- (Exam Topic 3)  
 Refer to the exhibit.

An engineer cannot copy the IOS.bin file from the FTP server to the switch. Which action resolves the issue?

- A. Allow file permissions to download the file from the FTP server.
- B. Add the IOS.bin file, which does not exist on FTP server.
- C. Make memory space on the switch flash or USB drive to download the file.
- D. Use the copy flash:/ ftp://cisco@10.0.0.2/IOS.bin command.

Answer: B

**NEW QUESTION 45**

- (Exam Topic 3)

Refer to the exhibit.

An engineer configured IP SLA on R1 to avoid the ISP link flapping problem. but it is not working as designed IP SLA should wait 30 seconds before switching traffic to a secondary connection and then revert to the primary link after waning 20 seconds, when the primary link is available and stabilized. Which configuration resolves the issue?

- A. R1(config)#ip sla 700R1(config-ip-sla)#delay down 30 up 20
- B. R1(config)#ip sla 700R1(config-ip-sla)#delay down 20 up 30
- C. R1(config)#track 700 ip sla 700R1(config-track)#delay down 30 up 20
- D. R1(config)#track 700 ip sla 700R1(config-track)#delay down 20 up 30

Answer: C

**Explanation:**

“wait 30 seconds before switching traffic to a secondary connection” -> delay down 30 “then revert to the primary link after waiting 20 seconds” -> up 20 Under the track object, you can specify delays so we have to configure delay under “track 700 ip sla 700” (not under “ip sla 700”).

**NEW QUESTION 49**

- (Exam Topic 3)

What must a network architect consider for RTs when planning for a single customer full-mesh VPN in an MPLS Layer 3 network?

- A. RT must be globally unique within the same VPN
- B. RT must be globally identical within the same VPN
- C. RT values must be different from the RD values in the same VPN
- D. Each RT value must be identical to an RD value within the same VPN.

**Answer: D**

**NEW QUESTION 54**

- (Exam Topic 3)

Which mechanism provides traffic segmentation within a DMVPN network?

- A. RSVP
- B. BGP
- C. MPLS
- D. IPsec

**Answer: C**

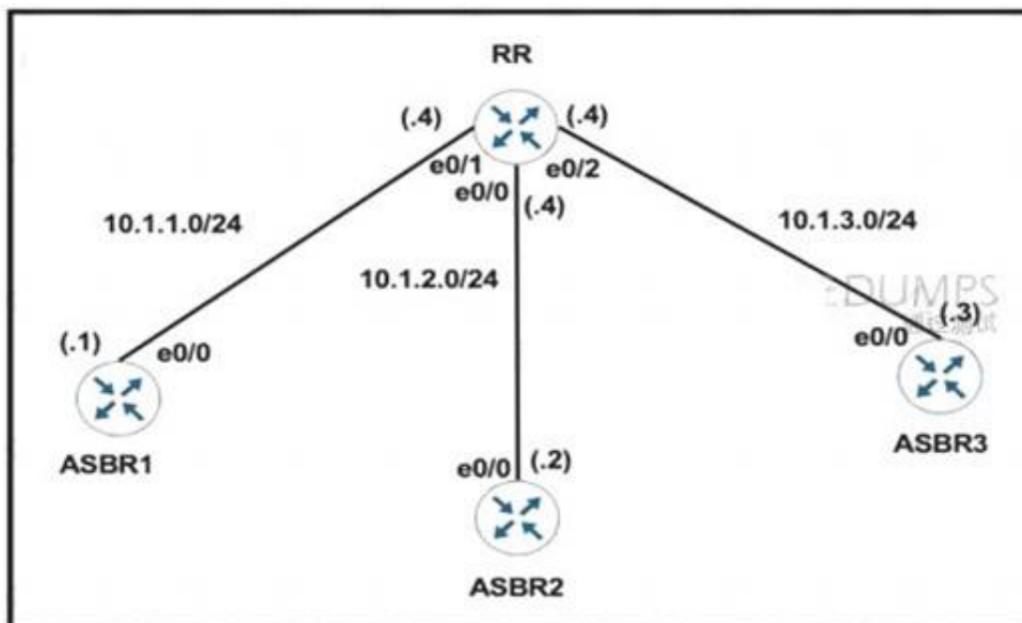
**Explanation:**

To use the DMVPN – Traffic Segmentation Within DMVPN feature you must configure Multiprotocol Label Switching (MPLS) by using the `mpls ip` command.  
 Reference: [https://www.cisco.com/c/en/us/td/docs/ios-xml/ios/sec\\_conn\\_dmvpn/configuration/xr-16/sec-conn-dmvpn-xr-16-book/sec-conn-dmvpn-dmvpn.html](https://www.cisco.com/c/en/us/td/docs/ios-xml/ios/sec_conn_dmvpn/configuration/xr-16/sec-conn-dmvpn-xr-16-book/sec-conn-dmvpn-dmvpn.html)

**NEW QUESTION 55**

- (Exam Topic 3)

Refer to the exhibit.



RR Configuration:

```
router bgp 100
neighbor IBGP peer-group
neighbor IBGP route-reflector-client
neighbor 10.1.1.1 remote-as 100
neighbor 10.1.2.2 remote-as 100
neighbor 10.1.3.3 remote-as 100
```

The network administrator configured the network to establish connectivity between all devices and notices that the ASBRs do not have routes for each other. Which set of configurations resolves this issue?

- router bgp 100
  - neighbor 10.1.1.1 next-hop-self
  - neighbor 10.1.2.2 next-hop-self
  - neighbor 10.1.3.3 next-hop-self
- router bgp 100
  - neighbor IBGP update-source Loopback0
- router bgp 100
  - neighbor IBGP next-hop-self
- router bgp 100
  - neighbor 10.1.1.1 peer-group IBGP
  - neighbor 10.1.2.2 peer-group IBGP
  - neighbor 10.1.3.3 peer-group IBGP

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

**Answer: D**

**NEW QUESTION 59**

- (Exam Topic 3)

Refer to the exhibit.

```
RR# show running-config
!
interface Ethernet0/1
 no ip address
 ipv6 address 2001:DB8:1:12::2/64
 ipv6 traffic-filter ACL in
!
ipv6 access-list ACL
 sequence 10 permit tcp any any eq 22
 sequence 20 permit tcp any eq 22 any
 sequence 30 permit tcp any any eq bgp
 sequence 40 permit tcp any eq bgp any
 sequence 50 permit udp any any eq ntp
 sequence 60 permit udp any eq ntp any
 sequence 70 permit udp any any eq snmp
 sequence 80 deny ipv6 any any log

RR# show ipv6 cef ::/0
::/0
  nexthop 2001:DB8:1:12::1 Ethernet0/1

*Feb 23 00:23:17.211: %IPV6_ACL-6-ACCESSLOGDP: list ACL/80
denied icmpv6 2001:DB8:1:12::1 -> FF02::1:FF00:2 (135/0), 7321
packets
```

After a security audit, the administrator implemented an ACL in the route reflector. The RR became unreachable from any router in the network. Which two actions resolve the issue? (Choose two.)

- A. Enable the ND proxy feature on the default gateway.
- B. Configure a link-local address on the Ethernet0/1 interface.
- C. Permit ICMPv6 neighbor discovery traffic in the ACL.
- D. Remove the ACL entry 80.
- E. Change the next hop of the default route to the link-local address of the default gateway.

**Answer:** CD

**NEW QUESTION 60**

- (Exam Topic 3)

An engineer must establish a connection between two CE routers for two customers with overlapping IP addresses. Customer\_a is connected to interfaces Gig0/0, and Customer\_b is connected to interfaces Gig0/1. Routers CE1 and CE2 are configured as follows:

```
ip vrf customer_a
 rd 1:1
 route-target both 1:1
!
ip vrf customer_b
 rd 2:2
 route-target both 2:2
```

Drag and drop the code snippets from the right onto the boxes in the configuration to establish the needed connection. Snippets may be used more than once.

```

CE1
interface Gig0/0
 ip vrf forwarding 
 ip address 
!
interface Gig0/1
 ip vrf forwarding 
 ip address 

CE2
interface Gig0/0
 ip vrf forwarding 
 ip address 
!
interface Gig0/1
 ip vrf forwarding 
 ip address
    
```

```

customer_a
customer_b
192.168.1.1 255.255.255.0
192.168.1.2 255.255.255.0
    
```

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

```

CE1
interface Gig0/0
 ip vrf forwarding customer_a
 ip address 192.168.1.1 255.255.255.0
!
interface Gig0/1
 ip vrf forwarding customer_b
 ip address 192.168.1.2 255.255.255.0

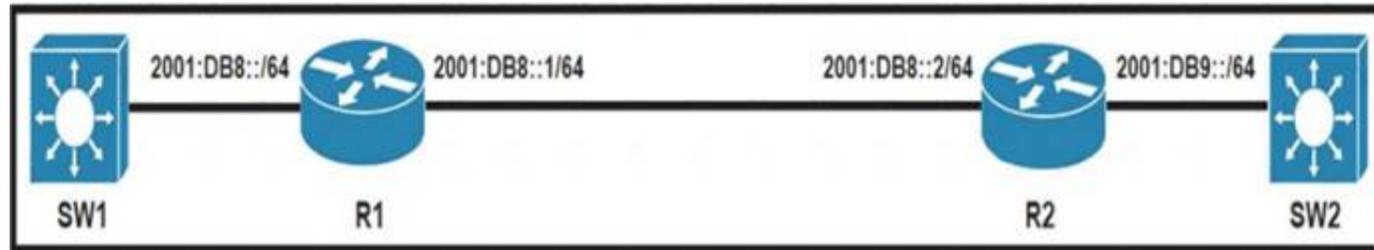
CE2
interface Gig0/0
 ip vrf forwarding customer_a
 ip address 192.168.1.1 255.255.255.0
!
interface Gig0/1
 ip vrf forwarding customer_b
 ip address 192.168.1.2 255.255.255.0
    
```

```

customer_a
customer_b
192.168.1.1 255.255.255.0
192.168.1.2 255.255.255.0
    
```

**NEW QUESTION 65**

- (Exam Topic 3)  
 Refer to the exhibit.



An engineer must advertise routes into IPv6 MP-BGP and failed. Which configuration resolves the issue on R1?

- A. router bgp 65000no bgp default ipv4-unicast address-family ipv6 multicast network 2001:DB8::/64
- B. router bgp 65000no bgp default ipv4-unicast address-family ipv6 unicast network 2001:DB8::/64
- C. router bgp 64900no bgp default ipv4-unicast address-family ipv6 unicast network 2001:DB8::/64
- D. router bgp 64900no bgp default ipv4-unicast address-family ipv6 multicastneighbor 2001:DB8:7000::2 translate-update ipv6 multicast

Answer: B

**NEW QUESTION 70**

- (Exam Topic 3)

The network administrator configured R1 to authenticate Telnet connections based on Cisco ISE using TACACS+. ISE has been configured with an IP address of

192.168.1.5 and with a network device pointing toward R1(192.168.1.1) with a shared secret password of Cisco123.

```

aaa new-model
!
tacacs server ISE1
 address ipv4 192.168.1.5
 key Cisco123
!
aaa group server tacacs+ TAC-SERV
 server name ISE1
!
aaa authentication login telnet group TAC-SERV

```

The administrator cannot authenticate to R1 based on ISE. Which configuration fixes the issue?

- A. ip tacacs-server host 192.168.1.5 key Cisco123
- B. line vty 0 4login authentication TAC-SERV
- C. line vty 0 4login authentication telnet
- D. tacacs-server host 192.168.1.5 key Cisco123

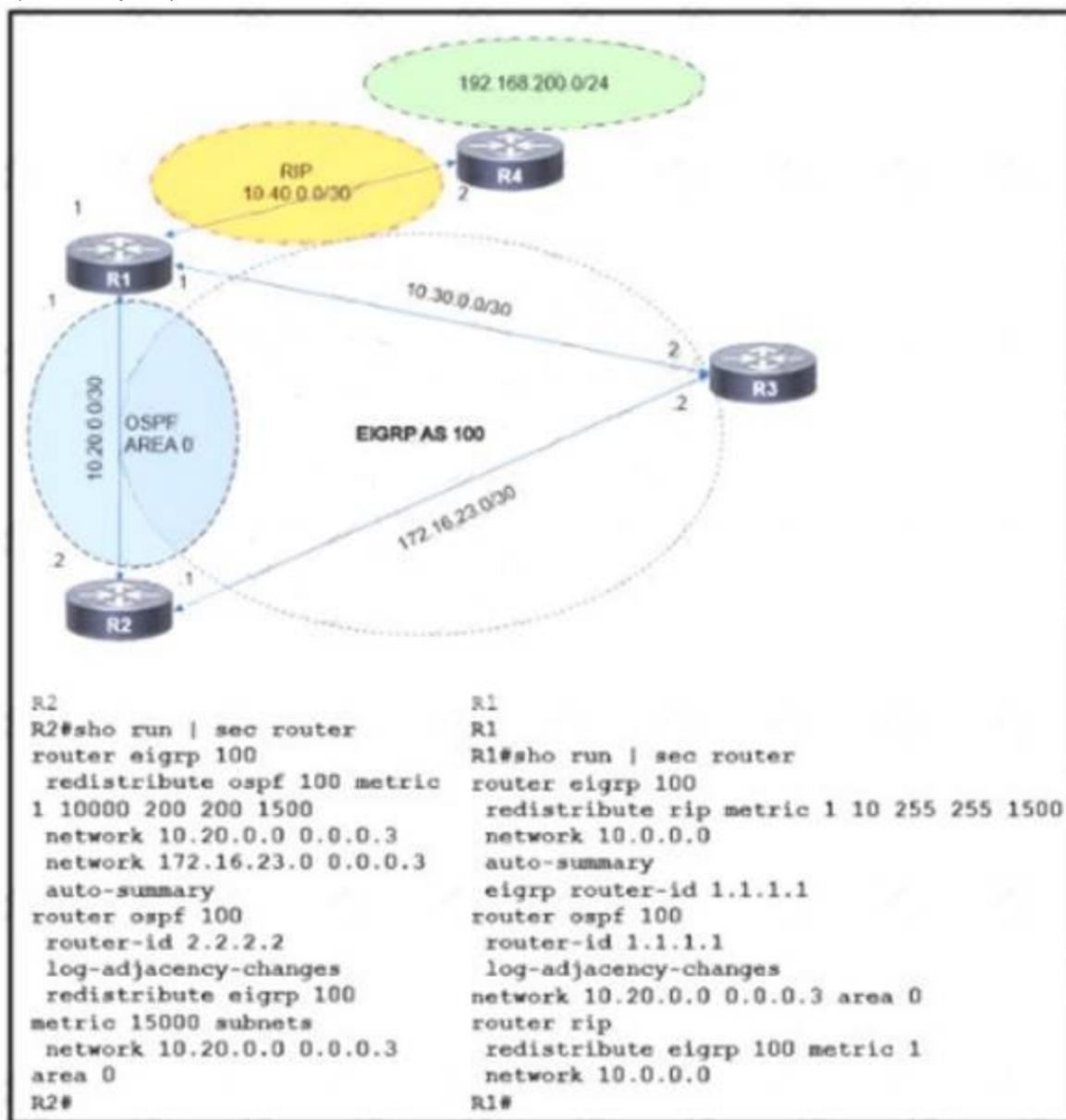
Answer: C

**Explanation:**

The last command “aaa authentication login telnet group TAC-SERV” created the method list name telnet so we need to assign it to line vty.  
 Reference: <https://www.cisco.com/c/en/us/support/docs/security/identity-services-engine/200208-Configure-ISE-2-0-IOS-TACACS-Authentic.html>

**NEW QUESTION 73**

- (Exam Topic 3)



Refer to the exhibit The route to 192 168 200 0 is flapping between R1 and R2 Which set of configuration changes resolves the flapping route?

- R2(config)#router ospf 100  
 R2(config-router)#no redistribute eigrp 100  
 R2(config-router)#redistribute eigrp 100 metric 1 subnets
- R1(config)#no router rip  
 R1(config)#ip route 192.168.200.0 255.255.255.0 10.40.0.2
- R2(config)#router eigrp 100  
 R2(config-router)#no redistribute ospf 100  
 R2(config-router)#redistribute rip
- R1(config)#router ospf 100  
 R1(config-router)#redistribute rip metric 1 metric-type 1 subnets

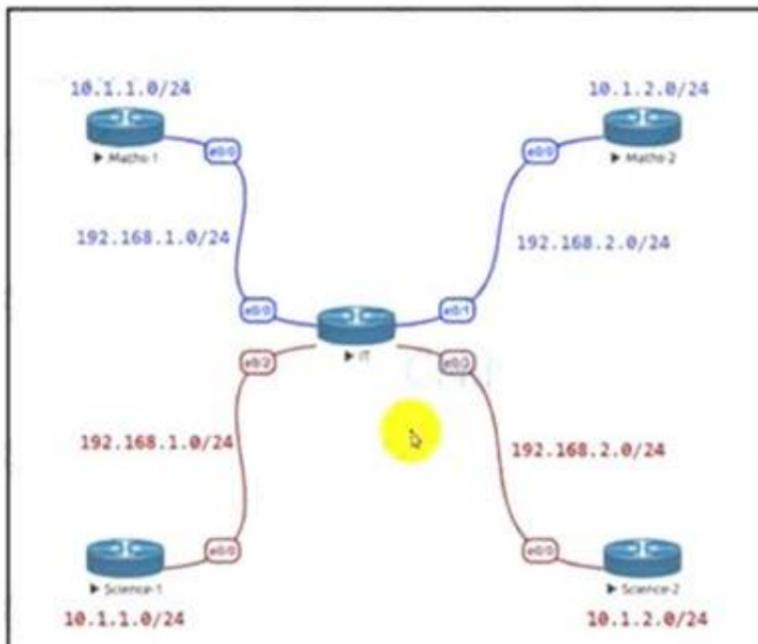
A. Option A

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

Answer: D

**NEW QUESTION 75**

- (Exam Topic 3)



```
IT Router
vrf definition Science
 address-family ipv4
```

```
!
Interface E 0/2
 Vrf forwarding Science
 Ip address 192.168.1.1 255.255.255.0
 No shut
!
Interface E 0/3
 Vrf forwarding Science
```

```
!
Interface E 0/3
 Vrf forwarding Science
 Ip address 192.168.2.1 255.255.255.0
 No shut
```

Refer to the exhibit. The IT router has been configured with the Science VRF and the interfaces have been assigned to the VRF. Which set of configurations advertises Science-1 and Science-2 routes using EIGRPAS 111?

- router eigrp 111
  - address-family ipv4 vrf Science autonomous-system 1
  - network 192.168.1.0
  - network 192.168.2.0
- router eigrp 111
  - address-family ipv4 vrf Science
  - network 192.168.1.0
  - network 192.168.2.0
- router eigrp 111
  - network 192.168.1.0
  - network 192.168.2.0
- router eigrp 1
  - address-family ipv4 vrf Science autonomous-system 111
  - network 192.168.1.0
  - network 192.168.2.0

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

Answer: D

**NEW QUESTION 76**

- (Exam Topic 3)

A network administrator is troubleshooting a failed AAA login issue on a Cisco Catalyst c3560 switch. When the network administrator tries to log in with SSH using TACACS+ username and password credentials, the switch is no longer authenticating and is failing back to the local account. Which action resolves this issue?

- A. Configure ip tacacs source-interface GigabitEthernet 1/1
- B. Configure ip tacacs source-ip 192.168.100.55
- C. Configure ip tacacs-server source-ip 192.168.100.55
- D. Configure ip tacacs-server source-interface GigabitEthernet 1/1

**Answer: A**

**NEW QUESTION 79**

- (Exam Topic 3)

```
R1(config)#ip access-list standard EIGRP-FILTER
R1(config-std-nacl)#deny 10.10.10.0 0.0.0.0
R1(config-std-nacl)#permit 0.0.0.0 0.0.0.0
R1(config)#router eigrp 10
R1(config-router)#distribute-list route-map EIGRP in
!
R1(config)#route-map EIGRP permit 10
R1(config-route-map)#match ip address EIGRP-FILTER
!
R1#show ip route eigrp | include 10.10.10.
D      10.10.10.128/25
```

Refer to the exhibit An engineer must filter EIGRP updates that are received to block all 10.10.10.0/24 prefixes The engineer tests the distribute list and finds one associated prefix. Which action resolves the issue?

- A. There is a permit in the route map that allows this prefix A deny 20 statement is required with a match condition to match a new ACL that denies all prefixes
- B. There is a permit in the ACL that allows this prefix into EIGRP
- C. The ACL should be modified to deny 10.10.10.0 0.0.0.255.
- D. There is a permit in the route map that allows this prefix A deny 20 statement is required with no match condition to block the prefix.
- E. There is a permit in the ACL that allows this prefix into EIGRP
- F. The ACL should be modified to deny 10.10.10.0 255.255.255.0.

**Answer: B**

**NEW QUESTION 81**

- (Exam Topic 3)

Refer to the exhibit.

A customer reports that user traffic of bank XYZ to the AAA server is not using the primary path via the R3-R2 link. The network team observes: No fiber is cut on links R2 and R3. AS101 and AS 201 routers established BGP peering. Which configuration resolves the issue?

A)

```
R2(config)#route-map BGP-Path permit 10
R2(config-route-map)# set metric 200
R2(config)#router bgp 65101
R2(config-router)# neighbor 10.10.10.3 route-map BGP-Path out
```

B)

```
R6(config)#router bgp 65201
R6(config-router)#no neighbor 10.10.10.5 weight 32769
```

C)

```
R4(config)#router bgp 65201
R4(config-router)#no neighbor 10.10.10.5 weight 32769
```

D)

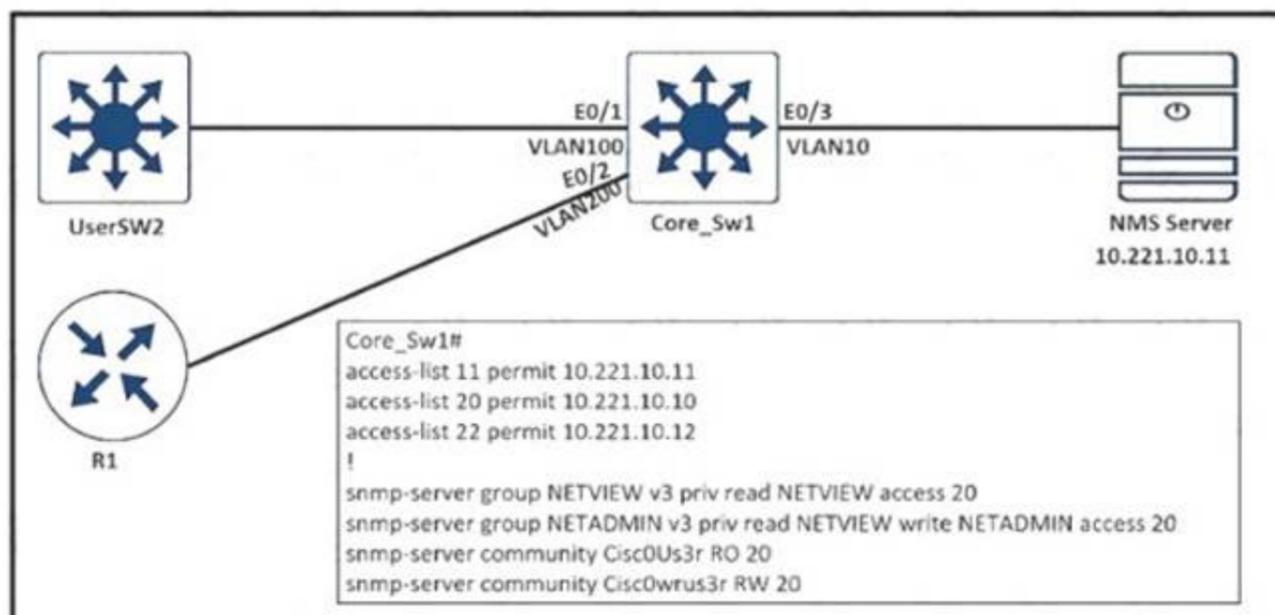
```
R1(config)#route-map BGP-Path permit 10
R1(config-route-map)# set local-preference 200
R1(config)#router bgp 65101
R1(config-router)# neighbor 10.10.10.2 route-map BGP-Path out
```

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

Answer: A

**NEW QUESTION 83**

- (Exam Topic 3)  
 Refer to the exhibit.



An engineer configured SNMP communities on the Core\_SW1, but the SNMP server cannot obtain information from Core\_SW1. Which configuration resolves this issue?

- A. snmp-server group NETVIEW v2c priv read NETVIEW access 20
- B. access-list 20 permit 10.221.10.11
- C. access-list 20 permit 10.221.10.12
- D. snmp-server group NETADMIN v3 priv read NETVIEW write NETADMIN access 22

Answer: B

**NEW QUESTION 84**

- (Exam Topic 3)  
 What are the two reasons for RD and VPNv4 addresses in an MPLS Layer 3 VPN? (Choose two.)

- A. RD is prepended to each prefix to make routes unique.
- B. VPN RT communities are used to identify customer unique routes.
- C. When the PE redistributes customer routes into MP-BGP, they must be unique.
- D. They are on a CE device to use for static configuration.

E. They are used for a BGP session with the CE device.

**Answer:** AC

**NEW QUESTION 86**

- (Exam Topic 3)

How do devices operate in MPLS L3VPN topology?

- A. P and associated PE routers with IGP populate the VRF table in different VPNs.
- B. CE routers connect to the provider network and perform LSP functionality
- C. P routers provide connectivity between PE devices with MPLS switching.
- D. P routers support PE to PE VPN tunnel without LSP functionality

**Answer:** C

**NEW QUESTION 90**

- (Exam Topic 3)

Refer to the exhibit.

```
R1#sh run | s bgp
router bgp 65001
no synchronization
bgp router-id 10.100.1.50
bgp log-neighbor-changes
network 10.1.1.0 mask 255.255.255.252
network 10.1.1.12 mask 255.255.255.252
network 10.100.1.50 mask 255.255.255.255
timers bgp 20 60
neighbor R2 peer-group
neighbor R4 peer-group
neighbor 10.1.1.2 remote-as 65001
neighbor 10.1.1.2 peer-group R2
neighbor 10.1.1.14 remote-as 65001
neighbor 10.1.1.14 peer-group R4
no auto-summary
```

While troubleshooting a BGP route reflector configuration, an engineer notices that reflected routes are missing from neighboring routers. Which two BGP configurations are needed to resolve the issue? (Choose two)

- A. neighbor 10.1.1.14 route-reflector-client
- B. neighbor R2 route-reflector-client
- C. neighbor 10.1.1.2 allowas-in
- D. neighbor R4 route-reflector-client
- E. neighbor 10.1.1.2 route-reflector-client

**Answer:** AE

**NEW QUESTION 91**

- (Exam Topic 3)

An engineer is implementing a coordinated change with a server team. As part of the change, the engineer must configure interlace GigabitEthernet2 in an existing VRF "RED" then move the interface to an existing VRF "BLUE" when the server team is ready. The engineer configured interface GigabitEthemet2 in VRF "RED"

```
interface GigabitEthernet2
description Migration ID: B410A60D0806G06
vrf forwarding RED
ip address 10.0.0.0 255.255.255.254
negotiation auto
```

Which configuration completes the change?

- A. interface GigabitEthernet2 no ip addressvrf forwarding BLUE
- B. interface GigabitEthernet2 no vrf forwarding RED vrf forwarding BLUEip address 10.0.0.0 255.255.255.254
- C. interface GigabitEthernet2 no vrf forwarding RED vrf forwarding BLUE
- D. interface GigabitEthernet2 no ip addressip address 10.0.0.0 255.255.255.254vrf forwarding BLUE

**Answer:** B

**Explanation:**

When assigning an interface to a VRF, the IP address will be removed so we have to reassign the IP address to that interface.

**NEW QUESTION 96**

- (Exam Topic 3)

What action is performed for untagged outgoing labels in an MPLS router?

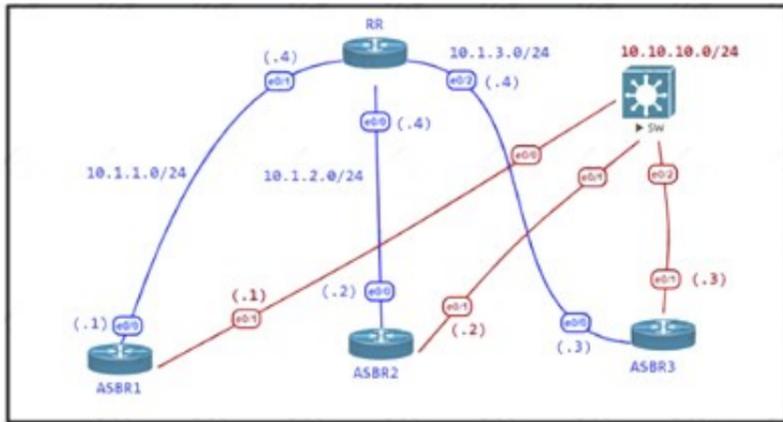
- A. Convert the incoming MPLS packet to an untagged packet and then do a FIB lookup
- B. Convert the incoming MPLS packet to an untagged packet and then do a RIB lookup.
- C. Convert the untagged packet to a labeled packet and forward it to the next router
- D. Convert the incoming MPLS packet to an IP packet and forward it to the next router.

Answer: C

**NEW QUESTION 98**

- (Exam Topic 3)

Exhibits:



**RR**

```
router bgp 100
neighbor 10.1.1.1 remote-as 100
neighbor 10.1.2.2 remote-as 100
neighbor 10.1.3.3 remote-as 100
```

**ASBR2**

```
router bgp 100
neighbor 10.1.1.4 remote-as 100
```

**ASBR2**

```
router bgp 100
neighbor 10.1.1.4 remote-as 100
```

**ASBR3**

```
router bgp 100
neighbor 10.1.2.4 remote-as 100
```

**ASBR4**

```
router bgp 100
neighbor 10.1.3.4 remote-as 100
```

Refer to the exhibit The administrator configured the network devices for end-to-end reachability, but the ASBRs are not propagating routes to each other Which set of configurations resolves this issue?

- router bgp 100  
neighbor 10.1.1.1 route-reflector-client  
neighbor 10.1.2.2 route-reflector-client  
neighbor 10.1.3.3 route-reflector-client
- router bgp 100  
neighbor 10.1.1.1 update-source Loopback0  
neighbor 10.1.2.2 update-source Loopback0  
neighbor 10.1.3.3 update-source Loopback0
- router bgp 100  
neighbor 10.1.1.1 next-hop-self  
neighbor 10.1.2.2 next-hop-self  
neighbor 10.1.3.3 next-hop-self
- router bgp 100  
neighbor 10.1.1.1 ebgp-multihop  
neighbor 10.1.2.2 ebgp-multihop  
neighbor 10.1.3.3 ebgp-multihop

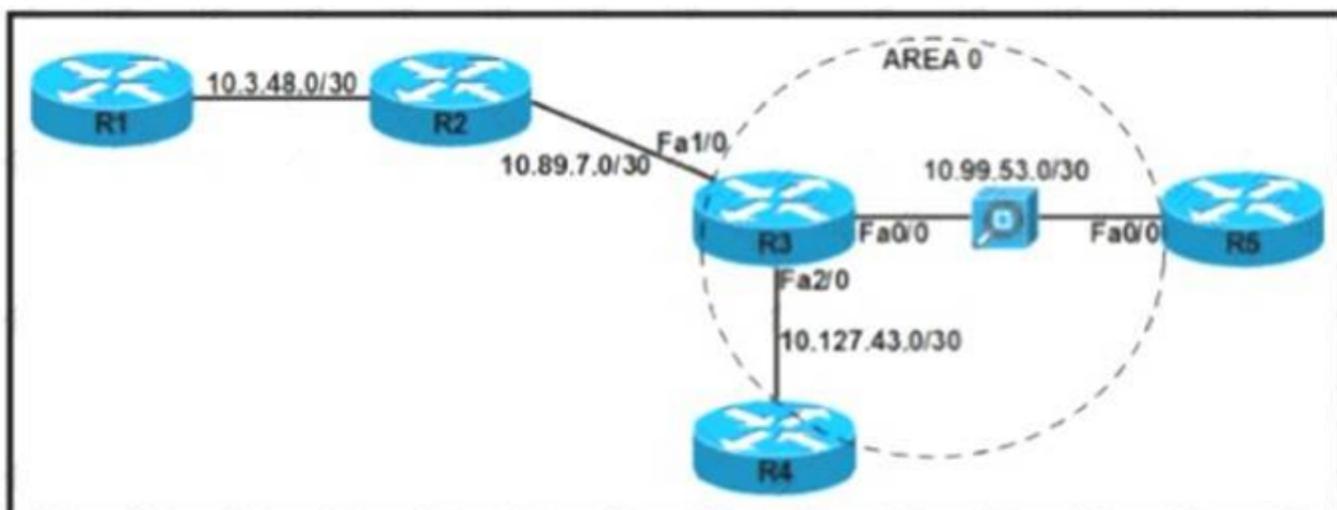
- A. Option A
- B. Option B
- C. Option C
- D. Option D

Answer: A

**NEW QUESTION 99**

- (Exam Topic 3)

Refer to the exhibit.



The security department recently installed a monitoring device between routers R3 and R5, which a loss of network connectivity for users connected to R5. Troubleshooting revealed that the monitoring device cannot forward multicast packets. The team already updated R5 with the correct configuration. Which configuration must be implemented on R3 to resolve the problem by ensuring R3 as the DR for the R3-R5 segment?

A)

```
interface FastEthernet0/0
ip address 10.99.53.1 255.255.255.252
ip access-group 122 in
ip ospf network point-to-point
ip ospf priority 100
!
router ospf 10
router-id 10.10.3.255
network 10.99.53.0 0.0.0.3 area 0
neighbor 10.99.53.2
!
access-list 122 permit 89 host 10.99.53.2 host 10.99.53.1
access-list 122 deny 89 any any
```

B)

```
interface FastEthernet0/0
ip address 10.99.53.1 255.255.255.252
ip access-group 122 in
ip ospf network non-broadcast
ip ospf priority 0
!
router ospf 10
router-id 10.10.3.255
network 10.99.53.0 0.0.0.3 area 0
neighbor 10.99.53.2
!
access-list 122 permit 89 host 10.99.53.2 host 10.99.53.1
access-list 122 deny 89 any any
access-list 122 permit tcp any any
access-list 122 permit udp any any
access-list 122 permit icmp any any
```

C)

```
interface FastEthernet0/0
ip address 10.99.53.1 255.255.255.252
ip access-group 122 in
ip ospf network non-broadcast
ip ospf priority 100
!
router ospf 10
router-id 10.10.3.255
network 10.99.53.0 0.0.0.3 area 0
neighbor 10.99.53.2
access-list 122 permit 89 host 10.99.53.2 host 10.99.53.1
access-list 122 deny 89 any any
access-list 122 permit tcp any any
access-list 122 permit udp any any
access-list 122 permit icmp any any
```

D)

```
interface FastEthernet0/0
ip address 10.99.53.1 255.255.255.252
ip access-group 122 in
ip ospf network point-to-point
ip ospf priority 100
!
router ospf 10
router-id 10.10.3.255
network 10.99.53.0 0.0.0.3 area 0
neighbor 10.99.53.2
!
access-list 122 permit 89 host 10.99.53.2 host 10.99.53.1
access-list 122 deny 89 any any
```

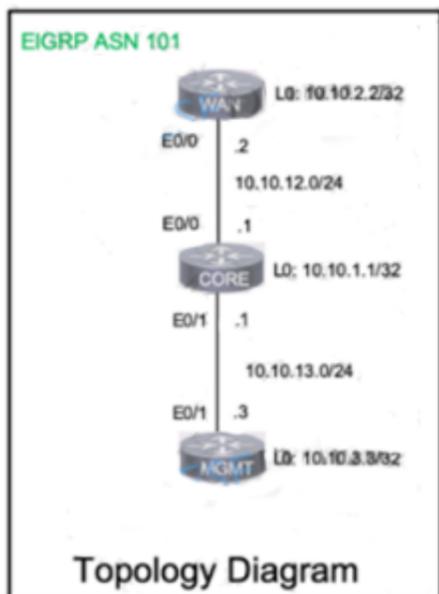
- A. Option A
- B. Option B
- C. Option C
- D. Option D

Answer: C

**NEW QUESTION 103**

- (Exam Topic 3)

A network is configured with CoPP to protect the CORE router route processor for stability and DDoS protection. As a company policy, a class named class-default is preconfigured and must not be modified or deleted. Troubleshoot CoPP to resolve the issues introduced during the maintenance window to ensure that:



Guidelines Topology **Tasks**

A network is configured with CoPP to protect the CORE router route processor for stability and DDoS protection. As a company policy, a class named class-default is preconfigured and must not be modified or deleted. Troubleshoot CoPP to resolve the issues introduced during the maintenance window to ensure that:

1. Dynamic routing policies are under CoPP-CRITICAL and are allowed only from the 10.10.x.x range.
2. Telnet, SSH, and ping are under CoPP-IMPORTANT and are allowed strictly to/from 10.10.x.x to the CORE router (Hint: you can verify using Loopback1).
3. All devices ping (UDP) any CORE router interface successfully to/from the 10.10.x.x range and do not allow any other IP address.  
NORMAL (Hint: Traceroute port range 33434 33464).

WAN

```
!
!
interface Loopback0
 ip address 10.10.2.2 255.255.255.255
!
interface Loopback1
 ip address 172.16.2.2 255.255.255.0
!
```

WAN CORE MGMT

```
interface Loopback0
 ip address 10.10.2.2 255.255.255.255
!
interface Loopback1
 ip address 172.16.2.2 255.255.255.0
!
interface Ethernet0/0
 ip address 10.10.12.2 255.255.255.0
 duplex auto
!
interface Ethernet0/1
 no ip address
 shutdown
 duplex auto
!
interface Ethernet0/2
 no ip address
 shutdown
 duplex auto
!
interface Ethernet0/3
 no ip address
 shutdown
 duplex auto
!
!
router eigrp 101
 network 10.10.0.0 0.0.255.255
 network 172.16.2.0 0.0.0.255
 eigrp router-id 10.10.2.2
```

```
!
!
router eigrp 101
 network 10.10.0.0 0.0.255.255
 network 172.16.2.0 0.0.0.255
 eigrp router-id 10.10.2.2
!
```

CORE

```

!
class-map match-all CoPP-CRITICAL
 match access-group 120
class-map match-all CoPP-NORMAL
 match access-group 122
class-map match-all CoPP-IMPORTANT
 match access-group 121
!
policy-map CoPP
 class CoPP-CRITICAL
  police 1000000 50000 50000 conform-action transmit exceed-
-action drop
 class CoPP-IMPORTANT
  police 100000 20000 20000 conform-action transmit exceed-
action drop
 class CoPP-NORMAL
  police 64000 6400 64000 conform-action transmit exceed-ac
tion drop
 class class-default
  police 8000 1500 1500 conform-action drop exceed-action d
rop
!

```

```

!
interface Loopback0
 ip address 10.10.1.1 255.255.255.255
!
interface Ethernet0/0
 ip address 10.10.12.1 255.255.255.0
 duplex auto
!
interface Ethernet0/1
 ip address 10.10.13.1 255.255.255.0
 duplex auto
!

```

```

interface Ethernet0/1
 ip address 10.10.13.1 255.255.255.0
 duplex auto
!
interface Ethernet0/2
 no ip address
 shutdown
 duplex auto
!
interface Ethernet0/3
 no ip address
 shutdown
 duplex auto
!
!
router eigrp 101
 network 10.10.0.0 0.0.255.255
 eigrp router-id 10.10.1.1
!
ip forward-protocol nd
!
!
no ip http server
no ip http secure-server
!
ipv6 ioam timestamp
!

```

```

!
!
access-list 120 remark *** ACL for CoPP-Critical ***
access-list 121 remark *** ACL for CoPP-IMPORTANT
access-list 122 remark *** ACL for CoPP-NORMAL
!
control-plane
 service-policy input CoPP
!
!

```

MGMT



```

access-list 120 remark *** ACL for CoPP-Critical ***
access-list 120 permit ip 10.10.0.0 0.0.255.255 any
access-list 120 permit ip any any
access-list 120 permit ip any 10.10.0.0 0.0.255.255
access-list 121 permit icmp 10.10.0.0 0.0.255.255 any
access-list 121 permit tcp 10.10.0.0 0.0.255.255 any eq 22
access-list 121 permit tcp 10.10.0.0 0.0.255.255 any eq telnet
access-list 122 remark *** ACL for CoPP-NORMAL
access-list 122 permit udp 10.10.0.0 0.0.255.255 any
access-list 122 permit udp any 10.10.0.0 0.0.255.255
access-list 122 permit udp any 10.10.0.0 0.0.255.255 range 33434 33464
access-list 122 permit udp 10.10.0.0 0.0.255.255 any range 33434 33464
!
control-plane
service-policy input CoPP
!

```

CORE# Copy run start TESTING: CORE  
 Graphical user interface Description automatically generated with medium confidence

```

CORE#sh ip eigrp neighbors
EIGRP-IPv4 Neighbors for AS(101)
H   Address          Interface      Hold Uptime
me  SRTT    RTO   Q   Seq
   (ms)          Cnt Num
0   10.10.13.3      Et0/1         11 00:00
3:15   5    100  0   35
1   10.10.12.2      Et0/0         11 00:00
3:24   7    100  0   33
CORE#copy run star

```

MGMT  
 Graphical user interface, text Description automatically generated

```

MGMT#telnet 10.10.13.1
Trying 10.10.13.1 ...
% Connection refused by remote host

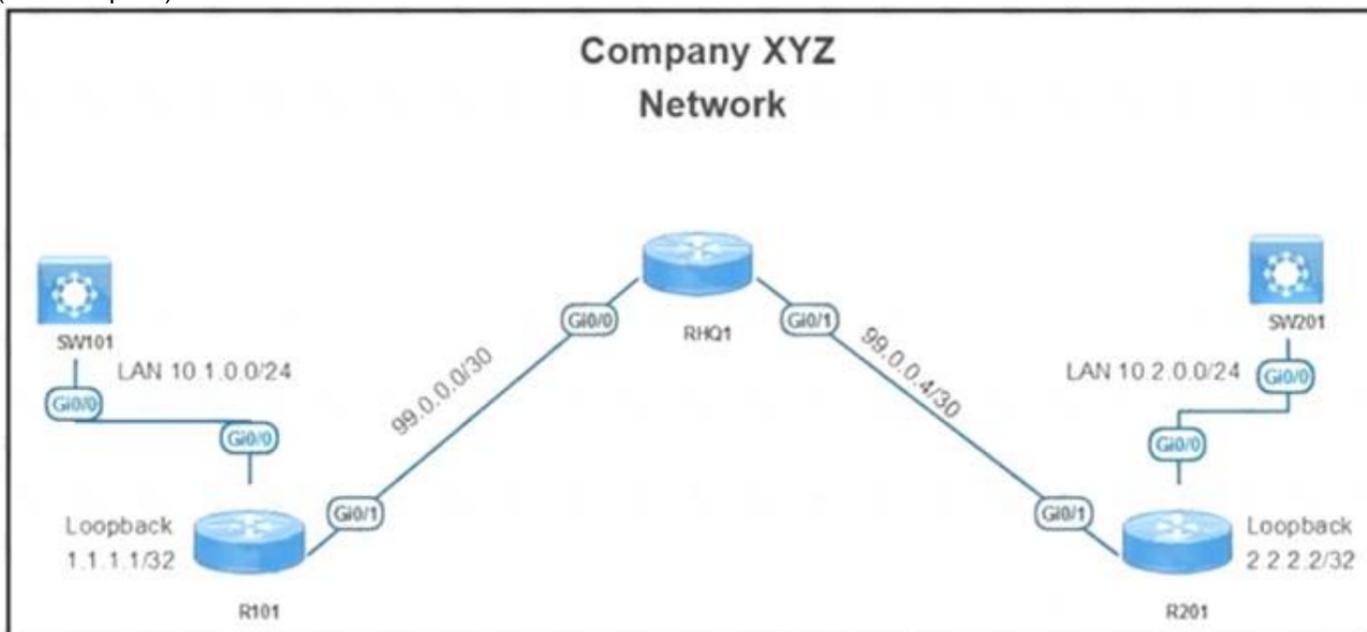
MGMT#telnet 10.10.13.1
Trying 10.10.13.1 ... Open

Password required, but none set

[Connection to 10.10.13.1 closed by foreign host]
MGMT#

```

**NEW QUESTION 105**  
 - (Exam Topic 3)



```

R101#sh run | section sla
ip sla 1
  tcp-connect 2.2.2.2 3000 source-ip 1.1.1.1
  threshold 1000
  timeout 1000

```

```
ip sla 2
 icmp-jitter 2.2.2.2 source-ip 1.1.1.1 num-packets 100 interval 10
 threshold 1000
 timeout 1000
 frequency 10
ip sla schedule 2 life forever start-time now
R101#sh ip sla summary
IPSLAs Latest Operation Summary
Codes: * active, ^ inactive, ~ pending

ID   Type           Destination  Stats (ms)  Return Code  Last Run
-----
*1   tcp-connect    2.2.2.2      -           No connection 33 seconds ago
*2   icmp-jitter    2.2.2.2      RTT=4       OK            3 seconds ago
```

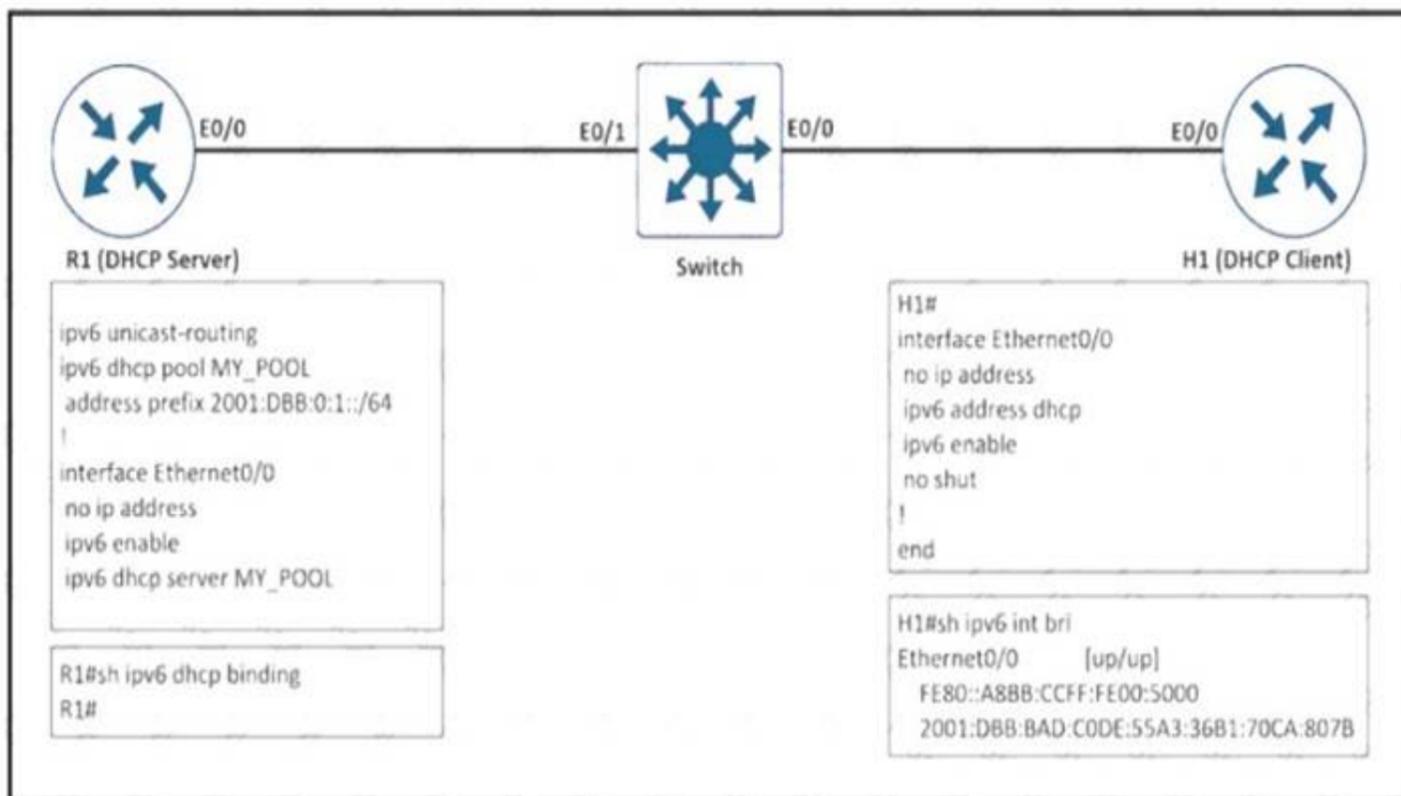
Refer to the exhibit While troubleshooting an issue on the network, an engineer notices that a TCP Connect operation failed on port 3000 between R101 and R201. Which command must be configured on R201 to respond to the R101 IP SLA configurations with a control connection on UDP port 1967?

- A. ip sla responder udp-echo ipaddress 1.1.1.1 port 1967
- B. ip sla responder tcp-connect ipaddress 1.1.1.1 port 3000
- C. ip sla responder tcp-connect ipaddress 2.2.2.2 port 3001
- D. ip sla responder

Answer: A

**NEW QUESTION 108**

- (Exam Topic 3)



Refer to the exhibit. The client server but the show command does not show the IPv6 DHCP bindings on the server. Which action resolves the issue?

- A. Extend the DHCP lease time because R1 removed the IPv6 address earlier after the lease expired.
- B. Configure H1 as the DHCP client that manually assigns the IPv6 address on interlace e0/0..
- C. Use the 2001:DBB:BAD:CODE::/64 prefix for the DHCP pool on R1.
- D. Configure authorized DHCP servers to avoid IPv6 addresses from a rogue DHCP server.

Answer: C

**NEW QUESTION 110**

- (Exam Topic 3)

Refer to the exhibit. An engineer is trying to log in to R1 via R3 loopback address. Which action resolves the issue?

- A. Add transport input SCP
- B. Add transport input none
- C. Remove the IPv6 traffic filter from R1, which is blocking the Telnet.
- D. Remove the IPv6 traffic from R1, which is blocking the SSH

Answer: C

**NEW QUESTION 114**

- (Exam Topic 3)

Which table is used to map the packets in an MPLS LSP that exit from the same interface, via the same next hop, and have the same queuing policies?

- A. RIB
- B. FEC
- C. LDP
- D. CEF

Answer: B

**NEW QUESTION 116**

- (Exam Topic 3)  
 Refer to the exhibits.

```

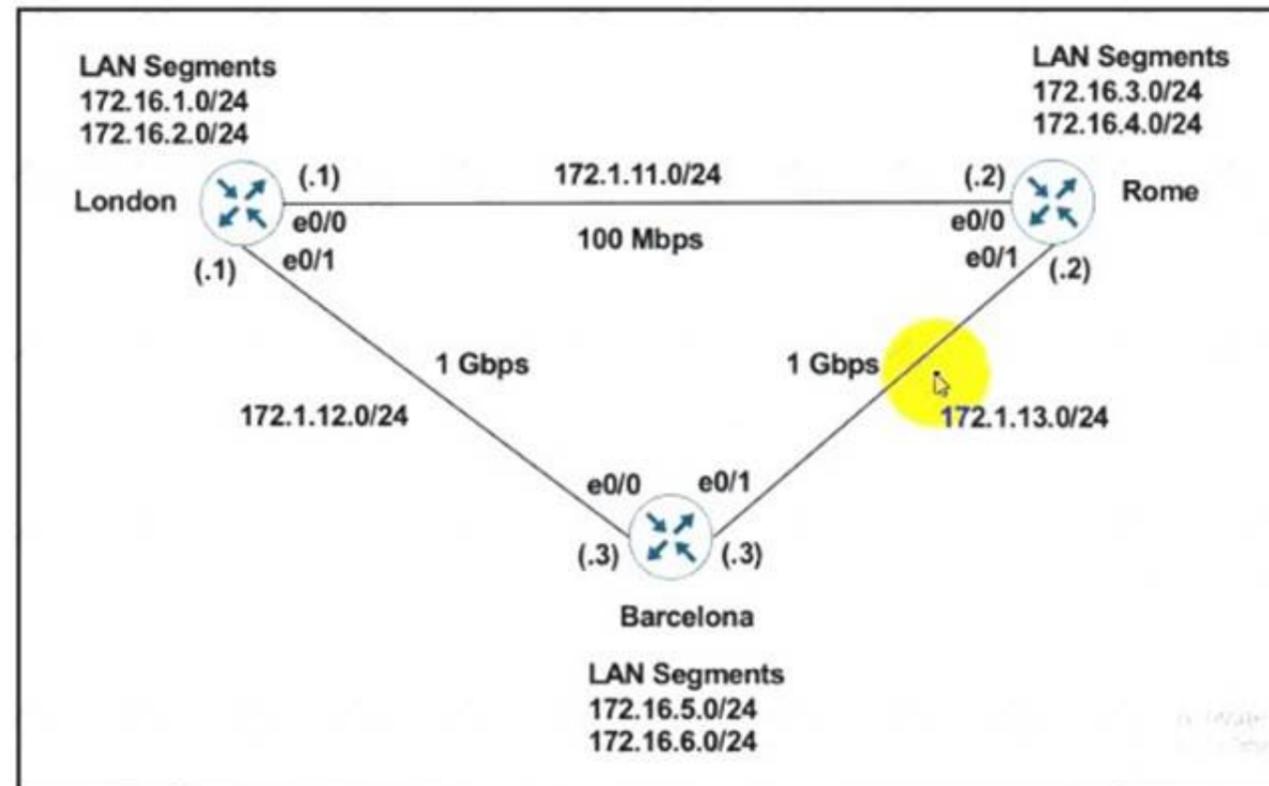
London - "show ip route" output

Gateway of last resort is not set

 172.1.0.0/16 is variably subnetted, 5 subnets, 2 masks
C   172.1.11.0/24 is directly connected, Ethernet0/0
L   172.1.11.1/32 is directly connected, Ethernet0/0
C   172.1.12.0/24 is directly connected, Ethernet0/1
L   172.1.12.1/32 is directly connected, Ethernet0/1
D   172.1.13.0/24 [90/76800] via 172.1.11.2, 00:00:50, Ethernet0/0
172.16.0.0/16 is variably subnetted, 8 subnets, 2 masks
C   172.16.1.0/24 is directly connected, Loopback0
L   172.16.1.1/32 is directly connected, Ethernet0/0
C   172.16.2.0/24 is directly connected, Loopback1
L   172.16.2.1/32 is directly connected, Loopback1
R   172.16.3.0/24 [120/1] via 172.1.11.2, 00:00:08, Ethernet0/0
R   172.16.4.0/24 [120/1] via 172.1.11.2, 00:00:08, Ethernet0/0
D   172.16.5.0/24 [90/156160] via 172.1.12.3, 00:00:50, Ethernet0/1
D   172.16.6.0/24 [90/156160] via 172.1.12.3, 00:00:50, Ethernet0/1

Rome - "show run | section router" output

router eigrp 111
 network 172.1.0.0
 network 172.16.0.0
 no auto-summary
    
```



London must reach Rome using a faster path via EIGRP if all the links are up but it failed to take this path Which action resolves the issue?

- A. Increase the bandwidth of the link between London and Barcelona
- B. Use the network statement on London to inject the 172.16.X.0/24 networks into EIGRP.
- C. Change the administrative distance of RIP to 150
- D. Use the network statement on Rome to inject the 172.16.X.0/24 networks into EIGRP

Answer: D

**NEW QUESTION 117**

- (Exam Topic 3)  
 Refer to the exhibit.

```
ip vrf CCNP
rd 1:1
interface Ethernet1
ip vrf forwarding CCNP
ip address 10.1.1.1 255.255.255.252
!
interface Ethernet2
ip vrf forwarding CCNP
ip address 10.2.2.2 255.255.255.252
```

Which configuration enables OSPF for area 0 interfaces to adjacency with a neighboring router with the same VRF?

- A. router ospf 1 vrf CCNP interface Ethernet1 ip ospf 1 area 0.0.0.0 interface Ethernet2 ip ospf 1 area 0.0.0.0
- B. router ospf 1 interface Ethernet1 ip ospf 1 area 0.0.0.0 interface Ethernet2 ip ospf 1 area 0.0.0.0
- C. router ospf 1 vrf CCNP network 10.1.1.1 0.0.0.0 area 0 network 10.2.2.2 0.0.0.0 area 0
- D. router ospf 1 vrf CCNP network 10.0.0.0 0.0.255.255 area 0

**Answer: C**

**NEW QUESTION 120**

- (Exam Topic 3)

Refer to the exhibit.

```
Route-map PBR, permit, sequence 10
Match clauses:
ip address (access-lists): FILTER_ACL
Set clauses:
ip next-hop verify-availability 209.165.202.129 1 track 100 [down]
ip next-hop verify-availability 209.165.202.131 2 track 200 [up]
Policy routing matches: 0 packets, 0 bytes
route-map PBR, deny, sequence 20
Match clauses:
Set clauses:
ip next-hop 209.165.201.30
Policy routing matches: 275364861 packets, 12200235037 bytes
```

An engineer has configured policy-based routing and applied the configured to the correct interface. How is the configuration applied to the traffic that matches the access list?

- A. It is sent to 209.165.202.131.
- B. It is sent to 209.165.202.129.
- C. It is dropped.
- D. It is forwarded using the routing table lookup.

**Answer: A**

**Explanation:**

The set ip next-hop verify-availability command in route-map configuration mode to configure policy routing to verify the reachability of the next hop of a route map before the router performs policy routing to that next hop. In this question we see track 100 is down so the PBR will not use this next-hop, it will use the second next-hop with track 200 (up).

**NEW QUESTION 123**

- (Exam Topic 3)

What is a MPLS PHP label operation?

- A. Downstream node signals to remove the label.
- B. It improves P router performance by not performing multiple label lookup.
- C. It uses implicit-NUL for traffic congestion from source to destination forwarding
- D. PE removes the outer label before sending to the P router.

**Answer: A**

**NEW QUESTION 125**

- (Exam Topic 3)

```
R1 (config)# ip vrf CCNP
R1 (config-vrf)# rd 1:100
R1 (config-vrf)# exit
R1 (config)# interface Loopback0
R1 (config-if)# ip address 10.1.1.1 255.255.255.0
R1 (config-if)# ip vrf forwarding CCNP
R1 (config-if)# exit
R1 (config)# exit
R1# ping vrf CCNP 10.1.1.1
% Unrecognized host or address, or protocol not running.
```

Refer to the exhibit Which command must be configured to make VRF CCNP work?

- interface Loopback0  
ip address 10.1.1.1 255.255.255.0  
vrf forwarding CCNP
- interface Loopback0  
ip address 10.1.1.1 255.255.255.0
- interface Loopback0  
vrf forwarding CCNP
- interface Loopback0  
ip address 10.1.1.1 255.255.255.0  
ip vrf forwarding CCNP

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

**Answer: B**

#### NEW QUESTION 130

- (Exam Topic 3)

R1 and R2 are configured as eBGP neighbor , R1 is in AS100 and R2 is in AS200. R2 is advertising these networks to R1:

```
172.16.16.0/20
172.16.3.0/24
172.16.4.0/24
192.168.1.0/24
192.168.2.0/24
172.16.0.0/16
```

The network administrator on R1 must improve convergence by blocking all subnets of 172-16.0.0/16 major network with a mask lower than 23 from coming in, Which set of configurations accomplishes the task on R1?

- A. ip prefix-list PL-1 deny 172.16.0.0/16 le 23 ip prefix-list PL-1 permit 0.0.0.0/0 le 32!router bgp 100neighbor 192.168.100.2 remote-as 200 neighbor 192.168.100.2 prefix-list PL-1 in
- B. ip prefix-list PL-1 deny 172.16.0.0/16 ge 23 ip prefix-list PL-1 permit 0.0.0.0/0 le 32!router bgp 100neighbor 192.168.100.2 remote-as 200 neighbor 192.168.100.2 prefix-list PL-1 in
- C. access-list 1 deny 172.16.0.0 0.0.254.255 access-list 1 permit any!router bgp 100neighbor 192.168.100.2 remote-as 200neighbor 192.168.100.2 distribute-list 1 in
- D. ip prefix-list PL-1 deny 172.16.0.0/16 ip prefix-list PL-1 permit 0.0.0.0/0!router bgp 100neighbor 192.168.100.2 remote-as 200 neighbor 192.168.100.2 prefix-list PL-1 in

**Answer: A**

#### Explanation:

“Blocking all subnets of 172.16.0.0/16 major network with a mask lower than 23 from coming in” would block 172.16.16.0/20.

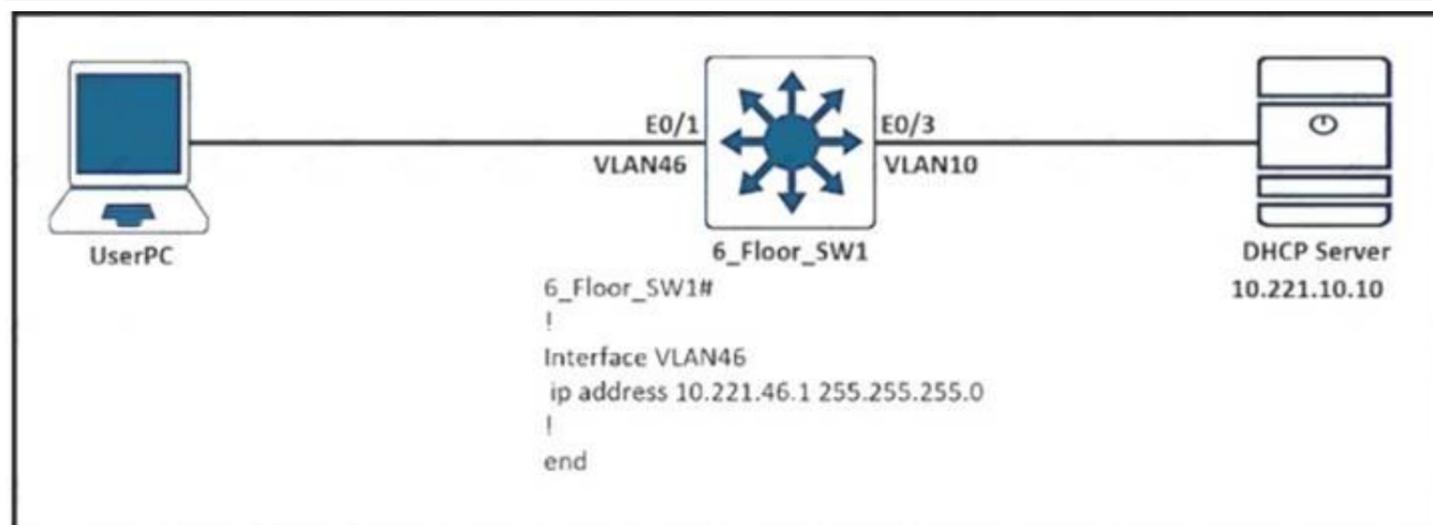
The first prefix-list “ip prefix-list PL-1 deny 172.16.0.0/16 le 23” means “all networks that fall within the 172.16.0.0/16 range AND that have a subnet mask of /23 or less” are denied.

The second prefix-list “ip prefix-list PL-1 permit 0.0.0.0/0 le 32” means allows all other prefixes.

#### NEW QUESTION 134

- (Exam Topic 3)

Refer to the exhibit.



Users in VLAN46 cannot get the IP from the DHCP server. Assume that all the parameters are configured properly in VLAN 10 and on the DHCP server Which command on interlace VLAN46 allows users to receive IP from the DHCP server?

- A. ip dhcp-addrleos 10.221.10.10
- B. ip dhcp server 10.221.10.10
- C. ip helper-addrrets 10.221.10.10
- D. ip dhcp relay information trust-all

Answer: C

**NEW QUESTION 135**

- (Exam Topic 3)

The network administrator configured the router for Control Plane Policing to limit OSPF traffic to be policed to 1 Mbps. Any traffic that exceeds this limit must also be allowed at this point for traffic analysis. The router configuration is:

```

access-list 100 permit ospf any any
!
class-map CM-OSPF match access-group 100
!
policy-map PM-COPP class CM-OSPF
police 1000000 conform-action transmit
!
control-plane
service-policy output PM-COPP
    
```

The Control Plane Policing failed to monitor and police OSPF traffic. Which configuration resolves this issue?

- no access-list 100  
 access-list 100 permit tcp any any eq 179  
 access-list 100 permit ospf any any  
 access-list 101 permit tcp any any range 22 23  
 !  
 !  
 class-map CM-MGMT  
 no match access-group 100  
 match access-group 101  
 !  
 control-plane  
 no service-policy output PM-COPP  
 service-policy input PM-COPP
- No access-list 100  
 access-list 100 permit tcp any any eq 179  
 access-list 100 permit tcp any any range eq 22  
 access-list 100 permit tcp any any range eq 23  
 access-list 100 permit ospf any any
- control-plane  
 no service-policy output PM-COPP  
 service-policy input PM-COPP
- no access-list 100  
 access-list 100 permit tcp any any eq 179  
 access-list 100 permit ospf any any  
 access-list 101 permit tcp any any range 22 23  
 !  
 !  
 class-map CM-MGMT  
 no match access-group 100  
 match access-group 101

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

Answer: A

**NEW QUESTION 137**

- (Exam Topic 3)

Refer to the exhibit.

```
*Sep 26 19:50:43.504: SNMP: Packet received via UDP from
192.168.1.2 on GigabitEthernet0/1SrParseV3SnmpMessage: No
matching Engine ID.

SrParseV3SnmpMessage: Failed.
SrDoSnmp: authentication failure, Unknown Engine ID

*Sep 26 19:50:43.504: SNMP: Report, reqid 29548, errstat 0,
erridx 0
internet.6.3.15.1.1.4.0 = 3
*Sep 26 19:50:43.508: SNMP: Packet sent via UDP to 192.168.1.2
process_mgmt_req_int: UDP packet being de-queued
```

Which two commands provide the administrator with the information needed to resolve the issue? (Choose two.)

- A. Show snmp user
- B. debug snmp engine-id
- C. debug snmpv3 engine-id
- D. debug snmp packet
- E. showsnmpv3 user

**Answer:** AD

**Explanation:**

There are 3 values in the SNMPv3 header that must match for the communication to take place: snmpEngineID, snmpEngineTime, snmpEngineBoots. The error received indicates a problem with the EngineID value: "authentication failure, Unknown Engine ID"

To specify the Engine ID, we can use the command "show snmp user". The following example specifies the username as abcd with Engine ID: 00000009020000000C025808:

```
Router#show snmp user abcd
User name: abcd
Engine ID: 00000009020000000C025808
storage-type: nonvolatile active access-list: 10
Rowstatus: active
Authentication Protocol: MD5
Privacy protocol: 3DES
Group name: VacmGroupName
Group name: VacmGroupName
```

The "debug snmp packet" command displays all SNMP packets that are arriving and being replied to.

**NEW QUESTION 141**

- (Exam Topic 3)

What is an advantage of implementing BFD?

- A. BFD provides faster updates for any flapping route.
- B. BFD provides millisecond failure detection
- C. BFD is deployed without the need to run any routing protocol
- D. BFD provides better capabilities to maintain the routing table

**Answer:** B

**NEW QUESTION 144**

- (Exam Topic 3)

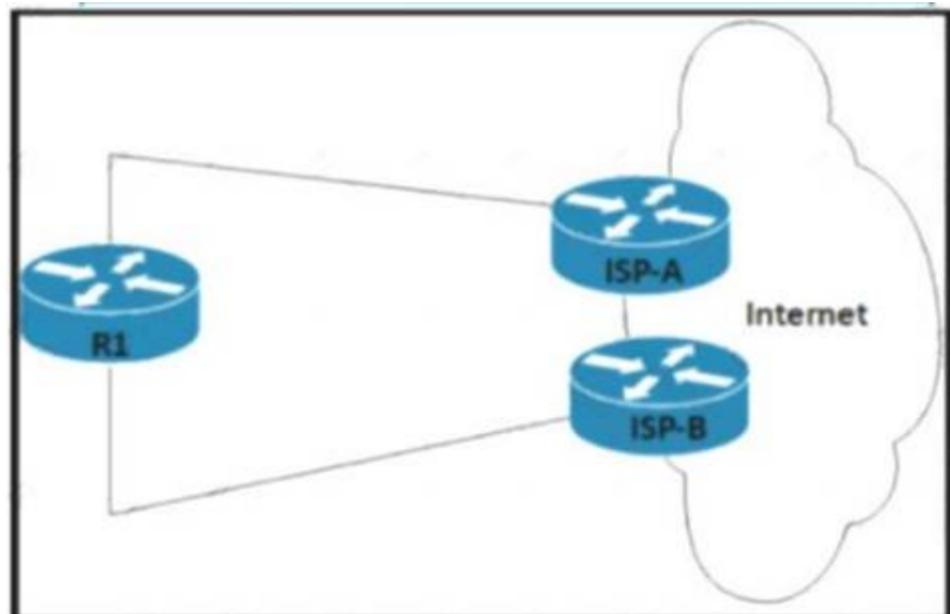
Which routing protocol is used by the PE router to advertise routes to a CE router without redistribution or static after removing the RD tag from the P router?

- A. IS-IS
- B. OSPF
- C. BGP
- D. MP-BGP

**Answer:** C

**NEW QUESTION 148**

- (Exam Topic 3)



Refer to the exhibit. Router R1 peers with two ISPs using static routes to get to the internet. The requirement is that R1 must prefer ISP-A under normal circumstances and failover to ISP-B if the connectivity to ISP-A is lost. The engineer observes that R1 is load balancing traffic across the two ISPs Which action resolves the issue by sending traffic to ISP-A only with failover to ISP-B?

- A. Configure OSPF between R1, ISP-A and ISP-B for dynamic failover if any ISP link to R1 fails
- B. Configure two static routes on R1. one pointing to ISP-A and another pointing to ISP-B with 222 admin distance
- C. Change the bandwidth of the interface on R1 so that interface to ISP-A has a higher value than the interface to ISP-B
- D. Configure two static routes on R1. one pointing to ISP-B with more specific routes and another pointing to ISP-A with summary routes

**Answer: D**

### NEW QUESTION 152

- (Exam Topic 3)

Refer to the exhibit.

```
Router#show ip bgp vpnv4 rd 1100:1001 10.30.116.0/23
BGP routing table entry for 1100:1001:10.30.116.0/23, version 26765275
Paths: (9 available, best #6, no table)
Advertised to update-groups:
 1 2 3
(65001 64955 65003) 65089, (Received from a RR-client)
 172.16.254.226 (metric 20645) from 172.16.224.236 (172.16.224.236)
  Origin IGP, metric 0, localpref 100, valid, confed-internal
  Extended Community: RT:1100:1001
  mpls labels in/out no-label/362
(65008 64955 65003) 65089
 172.16.254.226 (metric 20645) from 10.131.123.71 (10.131.123.71)
  Origin IGP, metric 0, localpref 100, valid, confed-external
  Extended Community: RT:1100:1001
  mpls labels in/out no-label/362
(65001 64955 65003) 65089
 172.16.254.226 (metric 20645) from 172.16.216.253 (172.16.216.253)
  Origin IGP, metric 0, localpref 100, valid, confed-external
  Extended Community: RT:1100:1001
  mpls labels in/out no-label/362
(65001 64955 65003) 65089
 172.16.254.226 (metric 20645) from 172.16.216.252 (172.16.216.252)
  Origin IGP, metric 0, localpref 100, valid, confed-external
  Extended Community: RT:1100:1001
  mpls labels in/out no-label/362
(64955 65003) 65089
 172.16.254.226 (metric 20645) from 10.77.255.57 (10.77.255.57)
  Origin IGP, metric 0, localpref 100, valid, confed-external
  Extended Community RT:1100:1001
  mpls labels in/out no-label/362
(64955 65003) 65089
 172.16.254.226 (metric 20645) from 10.57.255.11 (10.57.255.11)
  Origin IGP, metric 0, localpref 100, valid, confed-external, best
  Extended Community RT:1100:1001
  mpls labels in/out no-label/362
(64955 65003) 65089
 172.16.254.226 (metric 20645) from 172.16.224.253 (172.16.224.253)
  Origin IGP, metric 0, localpref 100, valid, confed-external
  Extended Community RT:1100:1001
  mpls labels in/out no-label/362
(65003) 65089
 172.16.254.226 (metric 20645) from 172.16.254.234 (172.16.254.234)
  Origin IGP, metric 0, localpref 100, valid, confed-external
  Extended Community RT:1100:1001
  mpls labels in/out no-label/362
65089, (Received from a RR-client)
 172.16.228.226 (metric 20645) from 172.16.228.226 (172.16.228.226)
  Origin IGP, metric 0, localpref 100, valid, confed-external
  Extended Community RT:1100:1001
  mpls labels in/out no-label/278
```

An engineer configured BGP and wants to select the path from 10.77.255.57 as the best path instead of current best path. Which action resolves the issue?

- A. Configure AS\_PATH prepend for the current best path

- B. Configure higher MED to select as the best path
- C. Configure AS\_PATH prepend for the desired best path
- D. Configure lower LOCAL\_PREF to select as the best path

**Answer: D**

**Explanation:**

From the output, we learn that the current best path is from 10.57.255.11 (which includes "...valid, confed-external, best") and this path is 2 ASes away (64955 65003). Although there are some paths with only 1 AS away (path from 172.16.254.234 for example) but they were not chosen the best path so AS\_PATH was not used to determine the best path -> Answers A and answer C are not correct. All the paths in the output have metric of 0 and this is the lowest (best) value for this attribute. If we configure higher MED then it is less preferred over other paths -> Answer B is not correct. Only answer D is left but LOCAL\_PREF attribute should be configured with higher value to be preferred so we hope "lower LOCAL\_PREF" here means higher value. But this is the best answer.

**NEW QUESTION 153**

- (Exam Topic 3)

A network administrator is troubleshooting a high utilization issue on the route processor of a router that was reported by NMS The administrator logged into the router to check the control plane policing and observed that the BGP process is dropping a high number of routing packets and causing thousands of routes to recalculate frequently. Which solution resolves this issue?

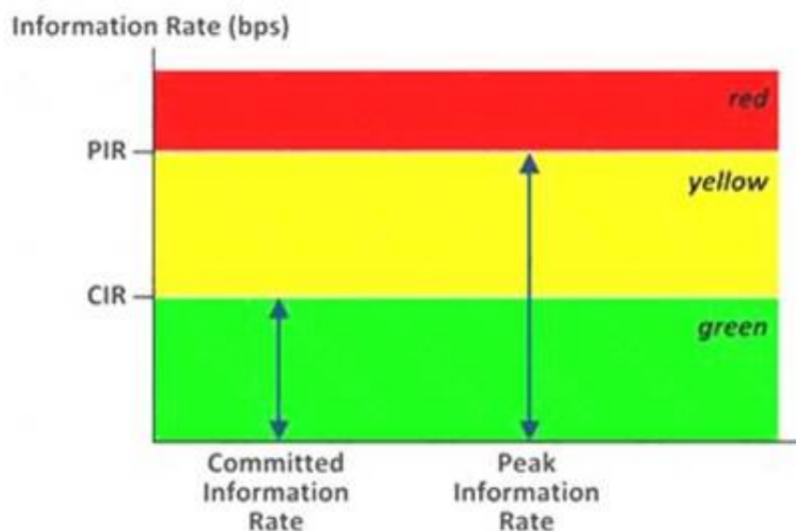
- A. Police the cir for BGP, conform-action transmit, and exceed action transmit.
- B. Shape the pir for BGP, conform-action set-prec-transmit, and exceed action set-frde-transmit.
- C. Shape the cir for BG
- D. conform-action transmit, and exceed action transmit.
- E. Police the pir for BGP, conform-action set-prec-transmit, and exceed action set-clp-transmit.

**Answer: D**

**Explanation:**

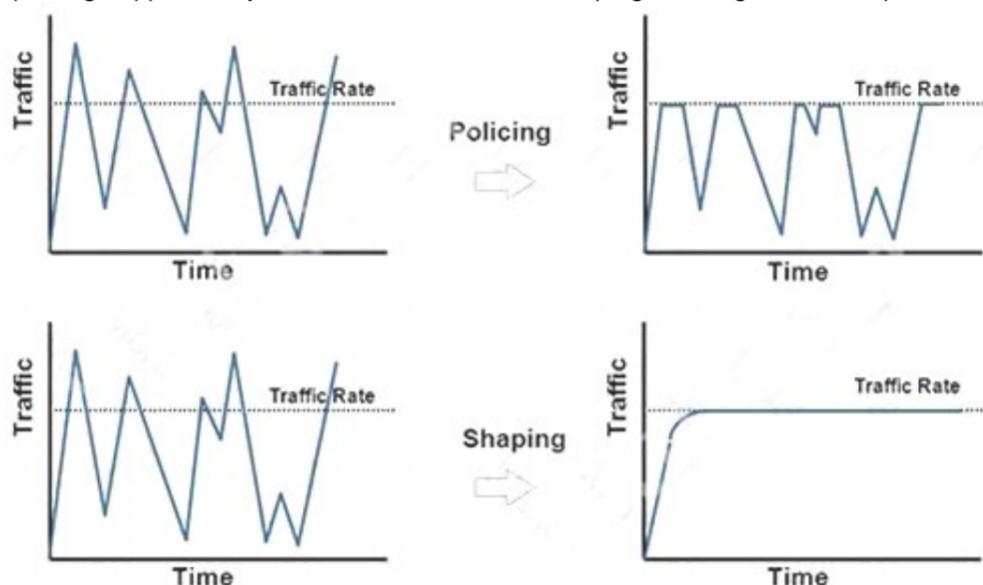
CIR (Committed Information Rate) is the minimum guaranteed traffic delivered in the network.  
 PIR (Peak Information Rate) is the top bandwidth point of allowed traffic in a non busy times without any guarantee.

## Two Rates & Three Colors



+ Policing: is used to control the rate of traffic flowing across an interface. During a bandwidth exceed (crossed the maximum configured rate), the excess traffic is generally dropped or remarked. The result of traffic policing is an output rate that appears as a saw-tooth with crests and troughs. Traffic policing can be applied to inbound and outbound interfaces. Unlike traffic shaping, QoS policing avoids delays due to queuing. Policing is configured in bytes.

+ Shaping: retains excess packets in a queue and then schedules the excess for later transmission over increments of time. When traffic reaches the maximum configured rate, additional packets are queued instead of being dropped to proceed later. Traffic shaping is applicable only on outbound interfaces as buffering and queuing happens only on outbound interfaces. Shaping is configured in bits per second.



Therefore in this case we can only policing, not shaping as traffic shaping is applicable only on outbound interfaces as buffering and queuing happens only on outbound interfaces. Moreover, BGP traffic is not important so we can drop the excess packets without any problems.

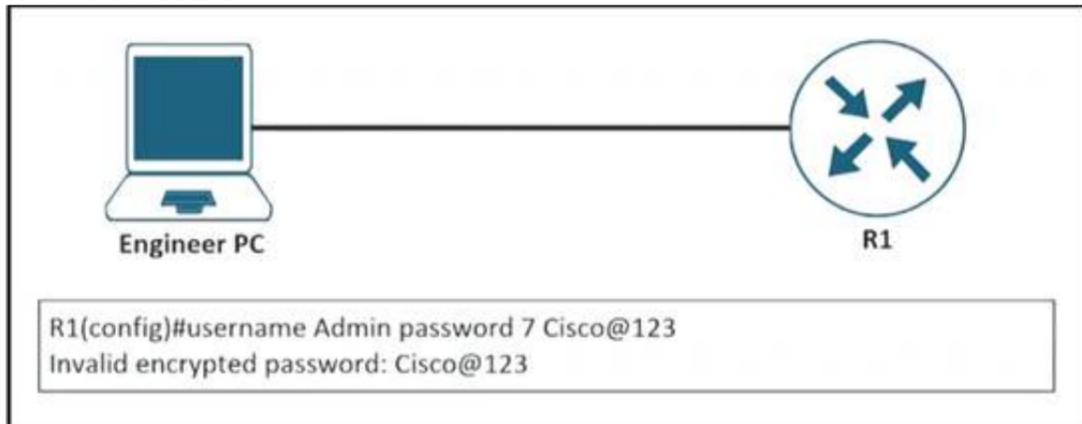
And we only policing the PIR traffic so that the route processor is not overwhelmed by BGP calculation.

Note: The "set-prec-transmit" is the same as "transmit" command except it sets the IP Precedence level as well. The "set-clp-transmit" sets the ATM Cell Loss Priority (CLP) bit from 0 to 1 on the ATM cell and transmits the packet.

**NEW QUESTION 155**

- (Exam Topic 3)

Refer to the exhibit.



An engineer is trying to add an encrypted user password that should not be visible in the router configuration. Which two configuration commands resolve the issue? (Choose two)

- A. password encryption aes
- B. username Admin password Cisco@maedeh motamedi
- C. username Admin password 5 Cisco@maedeh motamedi
- D. username Admin secret Cisco@maedeh motamedi
- E. no service password-encryption
- F. service password-encryption

**Answer:** DF

**NEW QUESTION 160**

- (Exam Topic 3)



Refer to the exhibit Which action resolves the issue?

- A. Configure host IP address in access-list 16
- B. Configure SNMPv3 on the router
- C. Configure SNMP authentication on the router
- D. Configure a valid SNMP community string

**Answer:** D

**NEW QUESTION 165**

- (Exam Topic 3)

```
CPE# show ip route static
<output omitted>
S* 0.0.0.0/0 is directly connected, Dialer0
S 198.51.100.0/24 [1/0] via 192.168.1.1
S 203.0.113.0/24 [1/0] via 192.168.2.1

CPE# show run | section router ospf
router ospf 1
 redistribute static subnets

CPE# show ip ospf database | begin Type-5
Type-5 AS External Link States
```

Link ID	ADV Router	Age	Seq#	Checksum Tag
198.51.100.0	192.168.0.1	14	0x80000001	0x0007D0 0
203.0.113.0	192.168.0.1	14	0x80000001	0x009C5C 0

Refer to the exhibit. The default route is not advertised to the neighboring router. Which action resolves the issue?

- A. Configure the redistribute static metric 200 subnets command under OSPF.
- B. Configure OSPF on the Dialer0 interface.
- C. Configure the network 0.0.0.0 255.255.255.255 area 0 command under OSPF.
- D. Configure the default-information originate command under OSPF.

**Answer:** D

**NEW QUESTION 170**

- (Exam Topic 3)

Refer to the exhibit.

```
!
summary-address 10.1.0.0 255.255.0.0
!
```

The none area 0 routers in OSPF still receive more specific routes of 10.1.1.0.10.1.2.0.10.1.3.0 from area 1. Which action resolves the issue?

- A. Configure route summarization on OSPF-enabled interfaces.
- B. Summarize by using the summary-address 10.1.0.0 255.255.252.0 command.
- C. Summarize by using the area range command on ABRs
- D. Configure the summary-address 10.1.0.0 255.255.252.0 command under OSPF process.

**Answer:** C

**NEW QUESTION 174**

- (Exam Topic 2)

How are MPLS Layer 3 VPN services deployed?

- A. The RD and RT values must match under the VRR
- B. The RD and RT values under a VRF must match on the remote PE router
- C. The import and export RT values under a VRF must always be the same.
- D. The label switch path must be available between the local and remote PE routers.

**Answer:** D

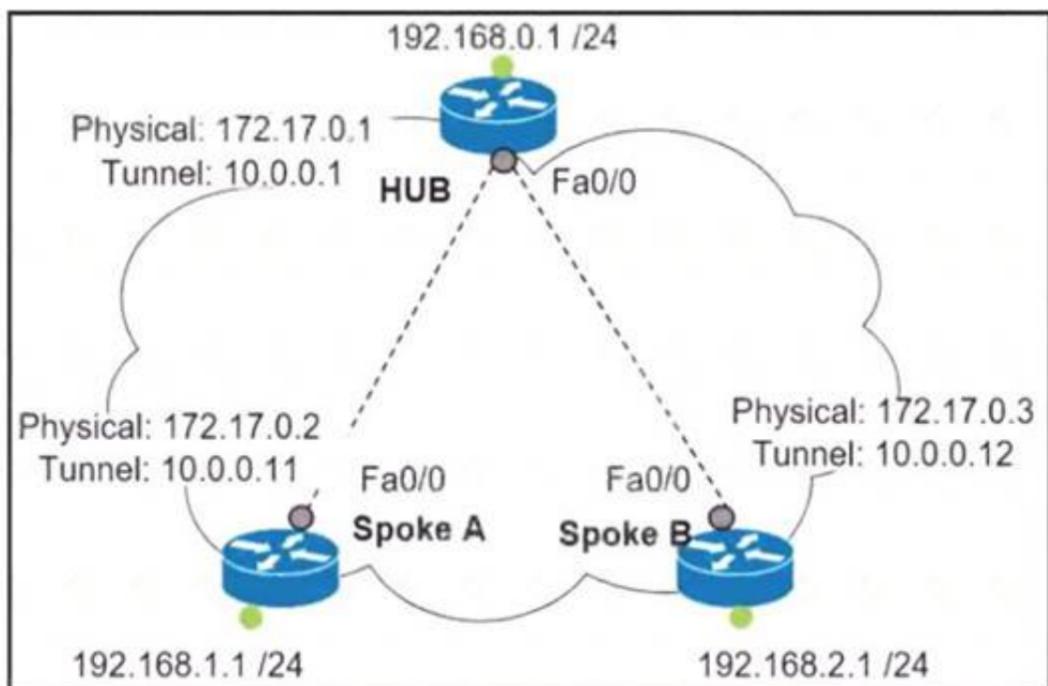
**Explanation:**

<https://www.cisco.com/c/en/us/td/docs/iosxr/ncs5500/vpn/65x/b-l3vpn-cg-ncs5500-65x/b-l3vpn-cg-ncs5500-65> The ingress PE router must be able to reach the egress PE router for a packet to be relayed to its destination.

**NEW QUESTION 175**

- (Exam Topic 2)

Refer to the exhibit.



Which interface configuration must be configured on the HUB router to enable MVPN with mGRE mode?

- `interface Tunnel0`  
 description mGRE - DMVPN Tunnel  
 ip address 10.1.0.1 255.255.255.0  
 ip nhrp map multicast dynamic  
 ip nhrp network-id 1  
 tunnel source 172.17.0.1  
 ip nhrp map 10.0.0.11 172.17.0.2  
 ip nhrp map 10.0.0.12 172.17.0.3  
 tunnel mode gre
- `interface Tunnel0`  
 description mGRE - DMVPN Tunnel  
 ip address 10.0.0.1 255.255.255.0  
 ip nhrp map multicast dynamic  
 ip nhrp network-id 1  
 tunnel source 10.0.0.1  
 tunnel mode gre multipoint
- `interface Tunnel0`  
 description mGRE - DMVPN Tunnel  
 ip address 10.0.0.1 255.255.255.0  
 ip nhrp network-id 1  
 tunnel source 172.17.0.1  
 tunnel mode gre multipoint
- `interface Tunnel0`  
 description mGRE - DMVPN Tunnel  
 ip address 10.0.0.1 255.255.255.0  
 ip nhrp map multicast dynamic  
 ip nhrp network-id 1  
 tunnel source 10.0.0.1  
 tunnel destination 172.17.0.2  
 tunnel mode gre multipoint

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

**Answer:** C

**Explanation:**

[https://www.cisco.com/c/en/us/td/docs/ios-xml/ios/sec\\_conn\\_dmvpn/configuration/15-mt/sec-conn-dmvpn-15-m](https://www.cisco.com/c/en/us/td/docs/ios-xml/ios/sec_conn_dmvpn/configuration/15-mt/sec-conn-dmvpn-15-m)

**NEW QUESTION 176**

- (Exam Topic 2)

Filtered

```
00:00:46: %LINK-3-UPDOWN: Interface Port-channel1, changed state to up
00:00:47: %LINK-3-UPDOWN: Interface GigabitEthernet0/1, changed state to up
00:00:47: %LINK-3-UPDOWN: Interface GigabitEthernet0/2, changed state to up
```

Desired

```
00:00:46: %LINK-3-UPDOWN: Interface Port-channel1, changed state to up
00:00:47: %LINK-3-UPDOWN: Interface GigabitEthernet0/1, changed state to up
00:00:47: %LINK-3-UPDOWN: Interface GigabitEthernet0/2, changed state to up
00:00:48: %LINEPROTO-5-UPDOWN: Line protocol on Interface Vlan1, changed state to down
00:00:48: %LINEPROTO-5-UPDOWN: Line protocol on Interface GigabitEthernet0/1, changed
state to down 2 *Mar 1 18:46:11: %SYS-5-CONFIG_I: Configured from console by vty2
```

Refer to the exhibits. An engineer filtered messages based on severity to minimize log messages. After applying the filter, the engineer noticed that it filtered required messages as well. Which action must the engineer take to resolve the issue?

- A. Configure syslog level 2.
- B. Configure syslog level 3.
- C. Configure syslog level 4.
- D. Configure syslog level 5.

**Answer: D**

**NEW QUESTION 178**

- (Exam Topic 3)

```
R1#show ip rip database
10.0.0.0/8 auto-summary
10.1.1.0/24 directly connected, GigabitEthernet0/0
10.1.3.0/24
 [2] via 10.1.12.2, 00:00:03, GigabitEthernet1/0
10.1.12.0/24 directly connected, GigabitEthernet1/0
10.1.23.0/24
 [1] via 10.1.12.2, 00:00:03, GigabitEthernet1/0
```

Refer to the exhibit. A customer reports that networks in the 10.0.1.0/24 space do not appear in the RIP database. What action resolves the issue?

- A. Remove summarization of 10.0.0.0/8.
- B. Permit 10.0.1.0/24 address in the ACL.
- C. Remove ACL on R1 blocking 10.0.1.0/24 network.
- D. Configure 10.0.1.0/24 network under RIP.

**Answer: A**

**NEW QUESTION 180**

- (Exam Topic 2)

Refer to the exhibit.

```
interface Ethernet0/0
ip address 10.1.1.1 255.255.255.0
ip access-group 101 in
!
time-range Office-hour
periodic weekdays 08:00 to 17:00
!
access-list 101 permit tcp 10.0.0.0 0.0.0.0 172.16.1.0 0.0.0.255 eq ssh time-range Office-hour
```

An IT staff member comes into the office during normal office hours and cannot access devices through SSH. Which action should be taken to resolve this issue?

- A. Modify the access list to use the correct IP address.
- B. Configure the correct time range.
- C. Modify the access list to correct the subnet mask.
- D. Configure the access list in the outbound direction.

**Answer: A**

**Explanation:**

To ACL should be permit tcp 101 10.1.1.1 0.0.0.0

**NEW QUESTION 181**

- (Exam Topic 2)  
 Refer to the exhibit.

```

router# show running-config
Building configuration
|
<output omitted -----|>
|
hostname R1
|
ip domain-name cisco.com
|
crypto key generate rsa modulus 2048
|
username admin privilege 15 secret cisco123
|
access-list 1 permit 10.1.1.0 0.0.0.255
access-list 1 deny any log
|
line vty 0 15
access-class 1 in
login local
|
<output omitted -----|>
|
end
    
```

A user cannot SSH to the router. What action must be taken to resolve this issue?

- A. Configure transport input ssh
- B. Configure transport output ssh
- C. Configure ip ssh version 2
- D. Configure ip ssh source-interface loopback0

**Answer:** A

**Explanation:**

[https://www.cisco.com/c/en/us/td/docs/switches/lan/catalyst2960x/software/15-0\\_2\\_EX/security/configuration\\_](https://www.cisco.com/c/en/us/td/docs/switches/lan/catalyst2960x/software/15-0_2_EX/security/configuration_)

**NEW QUESTION 182**

- (Exam Topic 2)  
 Drag and drop the MPLS concepts from the left onto the descriptions on the right.

label edge router	allows an LSR to remove the label before forwarding the packet
label switch router	accepts unlabeled packets and imposes labels
forwarding equivalence class	group of packets that are forwarded in the same manner
penultimate hop popping	receives labeled packets and swaps labels

- A. Mastered
- B. Not Mastered

**Answer:** A

**Explanation:**

A label edge router (LER, also known as edge LSR) is a router that operates at the edge of an MPLS network and acts as the entry and exit points for the network. LERs push an MPLS label onto an incoming packet and pop it off an outgoing packet.  
 A forwarding equivalence class (FEC) is a term

**NEW QUESTION 185**

- (Exam Topic 2)  
 Drag and drop the LDP features from the left onto the descriptions on the right

implicit null label	provides ways of improving load balancing by eliminating the need for DPI at transit LSRs
explicit null label	LSR receives an MPLS header with the label set to 3
inbound label binding filtering	packet is encapsulated in MPLS with the option of copying the IP precedence to EXP bits
entropy label	controls the amount of memory used to store LDP label bindings advertised by other devices

- A. Mastered
- B. Not Mastered

**Answer:** A

**Explanation:**

Diagram Description automatically generated

The MPLS LDP Inbound Label Binding Filtering feature can be used to control the amount of memory used to store Label Distribution Protocol (LDP) label bindings advertised by other devices. For example, in a simple Multiprotocol Label Switching (MPLS) Virtual Private Network (VPN) environment, the VPN provider edge (PE) devices might require label switched paths (LSPs) only to their peer PE devices (that is, they do not need LSPs to core devices). Inbound label binding filtering enables a PE device to accept labels only from other PE devices.

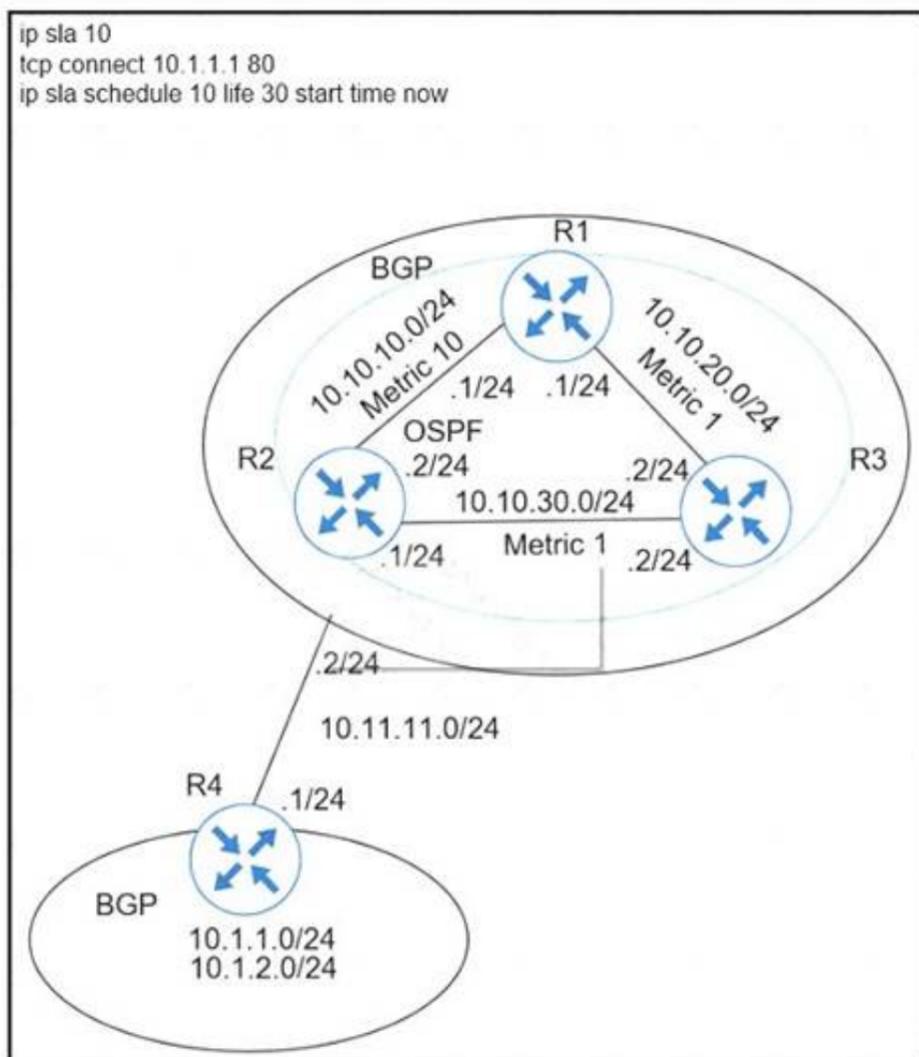
Reference:

[https://www.cisco.com/c/en/us/td/docs/ios-xml/ios/mp\\_ldp/configuration/15-sy/mp-ldp-15-sy-book/mp-ldp-inbound-filtr.html](https://www.cisco.com/c/en/us/td/docs/ios-xml/ios/mp_ldp/configuration/15-sy/mp-ldp-15-sy-book/mp-ldp-inbound-filtr.html)

**NEW QUESTION 190**

- (Exam Topic 2)

Refer to the exhibit.



A user has set up an IP SLA probe to test if a non-SLA host web server on IP address 10.1.1.1 accepts HTTP sessions prior to deployment. The probe is failing. Which action should the network administrator recommend for the probe to succeed?

- A. Re-issue the ip sla schedule command.
- B. Add icmp-echo command for the host.
- C. Add the control disable option to the tcp connect.
- D. Modify the ip sla schedule frequency to forever.

**Answer:** C

**NEW QUESTION 195**

- (Exam Topic 2)

Refer to the exhibit.

```

MASS-RTR#show running-config
!
hostname MASS-RTR
!
aaa new-model
!
aaa authentication login default local
aaa authorization exec default local
aaa authorization commands 15 default local
!
username admin privilege 15 password 7 0236244818115F3348
username cisco privilege 15 password 7 0607072C494A5B
archive
 log config
  logging enable
  logging size 1000
!
interface GigabitEthernet0/0
 ip address dhcp
 duplex auto
 speed auto
!
line vty 0 4
!

MASS-RTR#show archive log config all
idx  sess      user@line  Logged command
 1     1         console@console |interface GigabitEthernet0/0
 2     1         console@console | no shutdown
 3     1         console@console | ip address dhcp
 4     2         admin@vty0    |username cisco privilege 15 password cisco
 5     2         admin@vty0    |!config: USER TABLE MODIFIED

```

A client is concerned that passwords are visible when running this show archive log config all. Which router configuration is needed to resolve this issue?

- A. MASS-RTR(config-archive-log-cfg)#password encryption aes
- B. MASS-RTR(config)#aaa authentication arap
- C. MASS-RTR(config)#service password-encryption
- D. MASS-RTR(config-archive-log-cfg)#hidekeys

**Answer: D**

**Explanation:**

Step 7 hidekeys

Example:

```
Device(config-archive-log-config)# hidekeys
```

(Optional) Suppresses the display of password information in configuration log files.

**Note** Enabling the **hidekeys** command increases security by preventing password information from being displayed in configuration log files.

**NEW QUESTION 198**

- (Exam Topic 2)

Refer to the exhibit.

```

ipv6 access-list INTERNET
 permit ipv6 2001:DB8:AD59:BA21::/64 2001:DB8:C0AB:BA14::/64
 permit tcp 2001:DB8:AD59:BA21::/64 2001:DB8:C0AB:BA13::/64 eq telnet
 permit tcp 2001:DB8:AD59:BA21::/64 any eq http
 permit ipv6 2001:DB8:AD59::/48 any
 deny ipv6 any any log

```

When monitoring an IPv6 access list, an engineer notices that the ACL does not have any hits and is causing unnecessary traffic to pass through the interface. Which command must be configured to resolve the issue?

- A. access-class INTERNET in
- B. ipv6 traffic-filter INTERNET in
- C. ipv6 access-class INTERNET in
- D. ip access-group INTERNET in

**Answer: C**

**NEW QUESTION 202**

- (Exam Topic 2)

Refer to the exhibit.

```

L 172.1.12.3/32 is directly connected, Ethernet0/0
C 172.1.13.0/24 is directly connected, Ethernet0/1
L 172.1.13.3/32 is directly connected, Ethernet0/1
O 192.168.1.0/24 [110/2] via 172.1.12.1, 00:04:44, Ethernet0/0
O 192.168.2.0/24 [110/2] via 172.1.12.1, 00:04:44, Ethernet0/0
O 192.168.3.0/24 [110/2] via 172.1.13.2, 00:04:44, Ethernet0/1
O 192.168.4.0/24 [110/2] via 172.1.13.2, 00:04:44, Ethernet0/1
192.168.5.0/24 is variably subnetted, 2 subnets, 2 masks
C 192.168.5.0/24 is directly connected, Loopback0
L 192.168.5.1/32 is directly connected, Loopback0
192.168.6.0/24 is variably subnetted, 2 subnets, 2 masks
C 192.168.6.0/24 is directly connected, Loopback1
L 192.168.6.1/32 is directly connected, Loopback1
    
```

SanFrancisco and Boston routers are choosing slower links to reach each other despite the direct links being up Which configuration fixes the issue?

Boston Router

```

router ospf 1
auto-cost reference-bandwidth 1000
    
```

SanFrancisco Router

```

router ospf 1
auto-cost reference-bandwidth 1000
    
```

All Routers

```

router ospf 1
auto-cost reference-bandwidth 100
    
```

All Routers

```

router ospf 1
auto-cost reference-bandwidth 1000
    
```

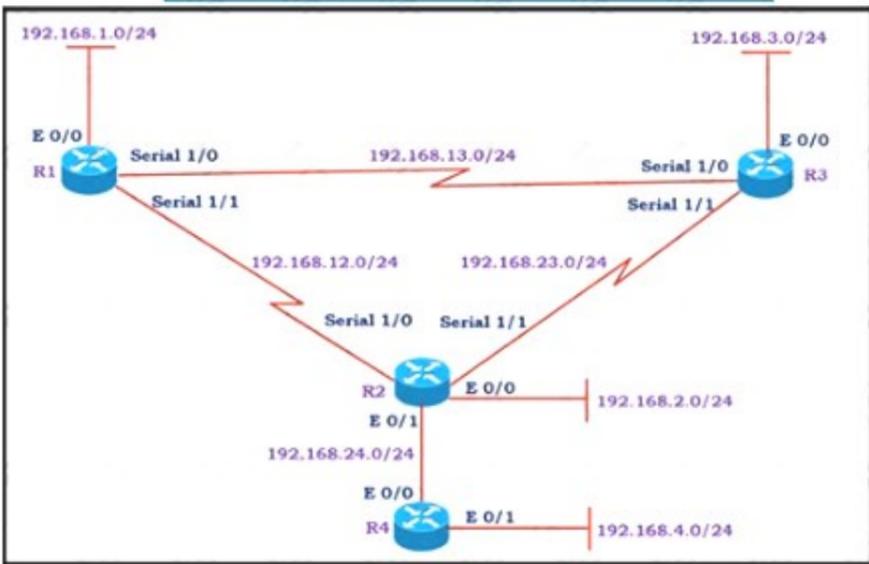
- A. Option A
- B. Option B
- C. Option C
- D. Option D

Answer: D

**NEW QUESTION 205**

- (Exam Topic 2)

Refer to the exhibit.



```
# Show IP route on R1
 192.168.1.0/24 is variably subnetted, 2 subnets, 2 masks
C   192.168.1.0/24 is directly connected, Ethernet0/0
L   192.168.1.1/32 is directly connected, Ethernet0/0
D   192.168.2.0/24 [90/2297856] via 192.168.12.2, 00:02:14, Serial1/1
S   192.168.3.0/24 [1/0] via 192.168.12.2
 192.168.12.0/24 is variably subnetted, 2 subnets, 2 masks
C   192.168.12.0/24 is directly connected, Serial1/1
L   192.168.12.1/32 is directly connected, Serial1/1
 192.168.13.0/24 is variably subnetted, 2 subnets, 2 masks
C   192.168.13.0/24 is directly connected, Serial1/0
L   192.168.13.1/32 is directly connected, Serial1/0
D   192.168.23.0/24 [90/2681856] via 192.168.13.3, 00:06:38, Serial1/0
    [90/2681856] via 192.168.12.2, 00:06:38, Serial1/1
```

All the serial between R1, R2, and R3 have the Same bandwidth. User on the 192.168.1.0/24 network report slow response times while they access resource on network 192.168.3.0/24. When a traceroute is run on the path. It shows that the packet is getting forwarded via R2 to R3 although the link between R1 and R3 is still up. What must the network administrator to fix the slowness?

- A. Change the Administrative Distance of EIGRP to 5.
- B. Add a static route on R1 using the next hop of R3.
- C. Remove the static route on R1.
- D. Redistribute the R1 route to EIGRP

**Answer: C**

#### NEW QUESTION 206

- (Exam Topic 2)

Refer to the exhibit.

```
R1#show run | begin line
line con 0
  exec-timeout 0 0
  privilege level 15
  logging synchronous
  transport preferred telnet
  transport output none
  stopbits 0 4
line vty 0 4
  login
  transport referred telnet
  transport input none
  transport output telnet
R1#

R1#ssh -1 cisco 192.168.12.2
% ssh connections not permitted from this terminal
R1#
```

An engineer receives this error message when trying to access another router in-band from the serial interface connected to the console of R1. Which configuration is needed on R1 to resolve this issue?

- R1(config)#line console 0  
R1(config-line)# transport preferred ssh
- R1(config)#line vty 0  
R1(config-line)# transport output ssh
- R1(config)#line vty 0  
R1(config-line)# transport output ssh  
R1(config-line)# transport preferred ssh
- R1(config)#line console 0  
R1(config-line)# transport output ssh

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

Answer: D

**Explanation:**

<https://community.cisco.com/t5/other-network-architecture/out-of-band-router-access/td-p/333295> The "transport output none" command prevents any protocol connection made from R1. Therefore our SSH connection to 192.168.12.2 was refused. In order to fix this problem we can configure "transport output ssh" under "line console 0" of R1.

Note: The parameter "-l" specifies the username to log in as on the remote machine.

**NEW QUESTION 210**

- (Exam Topic 2)

```

BRANCH(config)# ip route 0.0.0.0 0.0.0.0 172.16.35.2 track 1
BRANCH(config)# ip route 0.0.0.0 0.0.0.0 172.16.35.6 5
|
BRANCH(config)# ip sla 1
BRANCH(config-ip-sla)# icmp-echo 172.16.35.2
BRANCH(config-ip-sla)# timeout 200
BRANCH(config-ip-sla)# frequency 5
|
BRANCH(config)# ip sla schedule 1 life forever start-time now
|
BRANCH(config)# track 1 ip sla 1 reachability
    
```

Refer to the exhibit. An engineer has successfully set up a floating static route from the BRANCH router to the HQ network using HQ\_R1 as the primary default gateway. When the g0/0 goes down on HQ\_R1, the branch network cannot reach the HQ network 192.168.20.0/24. Which set of configurations resolves the issue?

- A. HQ\_R3(config)# ip sla responderHQ\_R3(config)# ip sla responder icmp-echo 172.16.35.1
- B. BRANCH(config)# ip sla 1BRANCH(config-ip-sla)# icmp-echo 192.168.100.2
- C. HQ\_R3(config)# ip sla responderHQ\_R3(config)# ip sla responder icmp-echo 172.16.35.5
- D. BRANCH(config)# ip sla 1BRANCH(config-ip-sla)# icmp-echo 192.168.100.1

Answer: D

**NEW QUESTION 211**

- (Exam Topic 2)

What is the minimum time gap required by the local system before putting a BFD control packet on the wire?

- A. Detect Mult

- B. Required Min Echo RX Interval
- C. Desired Min TX Interval
- D. Required Min RX Interval

**Answer: C**

**Explanation:**

Desired Min TX Interval: This is the minimum interval, in microseconds, that the local system would like to use when transmitting BFD Control packets, less any jitter applied. The value zero is reserved.

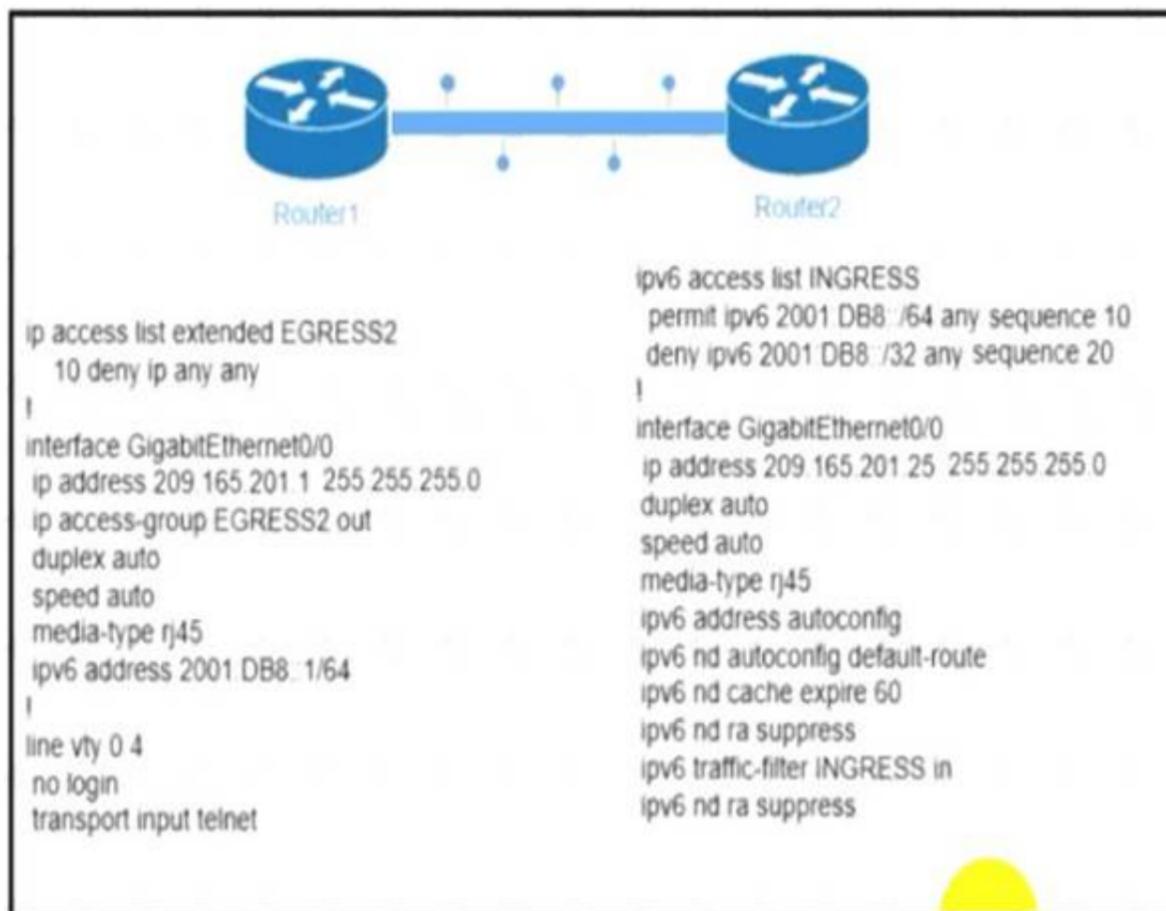
Required Min Echo RX Interval: This is the minimum interval, in microseconds, between received BFD Echo packets that this system is capable of supporting, less any jitter applied by the sender. If this value is zero, the transmitting system does not support the receipt of BFD Echo packets.

Reference: <https://tools.ietf.org/html/rfc5880>

**NEW QUESTION 213**

- (Exam Topic 2)

Refer to the exhibit.



The engineer configured and connected Router2 to Router1. The link came up but could not establish a Telnet connection to Router1 IPv6 address of 2001:DB8::1. Which configuration allows Router2 to establish a Telnet connection to Router1?

- A. ipv6 unicast-routing
- B. permit ICMPv6 on access list INGRESS for Router2 to obtain IPv6 address
- C. permit ip any any on access list EGRESS2 on Router1
- D. IPv6 address on GigabitEthernet0/0

**Answer: D**

**Explanation:**

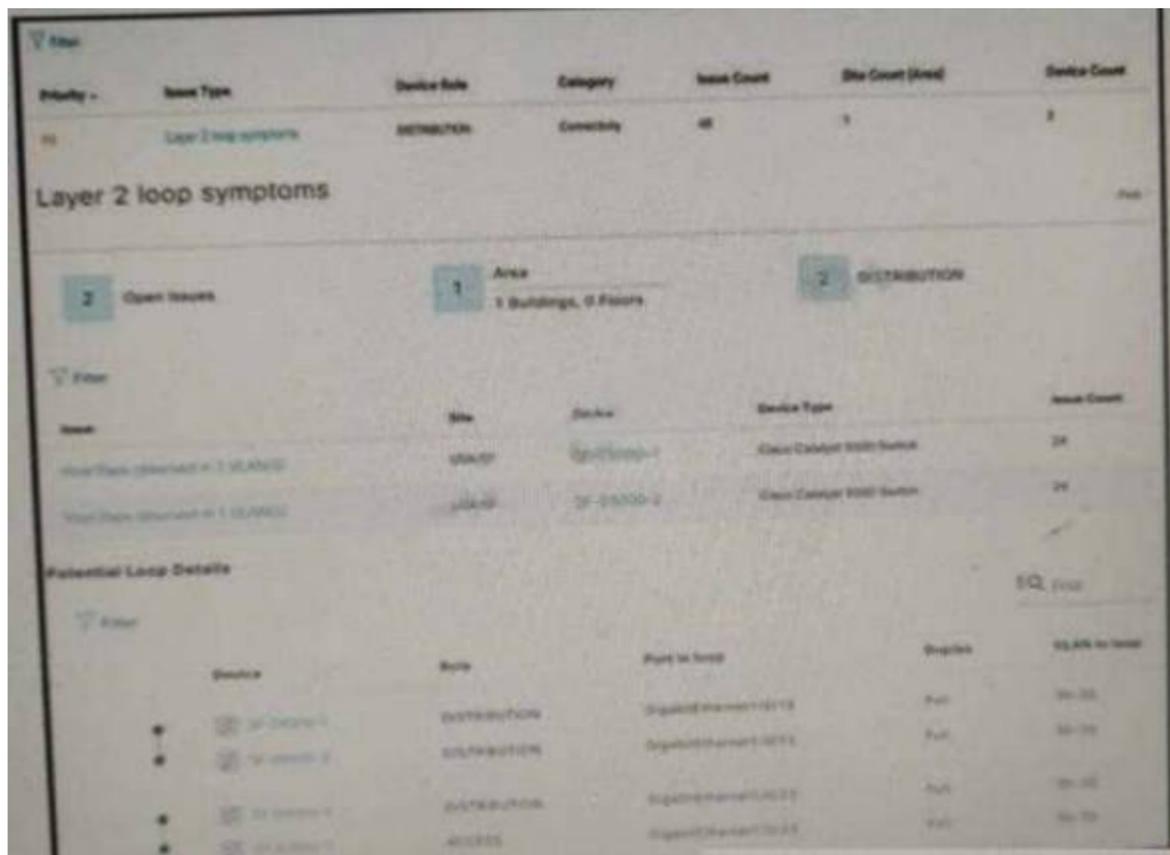
```

-----R1-----
interface Ethernet0/0
 ip address 209.165.201.1 255.255.255.0
 ip access-group EGRESS2 out ipv6 address 2001:DB8::1/64 end
-----R2-----
interface Ethernet0/0
 ip address 209.165.201.25 255.255.255.0
 ipv6 address 2001:DB8::2/64 ipv6 address autoconfig
 ipv6 nd autoconfig default-route ipv6 nd cache expire 60
 ipv6 nd ra suppress
 ipv6 traffic-filter INGRESS in end
IOU_Router2#telnet 2001:DB8::1 Trying 2001:DB8::1 ... Open IOU_Router1>
  
```

**NEW QUESTION 218**

- (Exam Topic 2)

Refer to the exhibit.



```
interface GigabitEthernet1/0/13
  switchport trunk allowed vlan 30-33
  switchport mode trunk
!
interface GigabitEthernet1/0/23
  switchport trunk allowed vlan 30-33
  switchport mode trunk
```

An engineer identifies a Layer 2 loop using DNAC. Which command fixes the problem in the SF-D9300-1 switch?

- A. no spanning-tree uplinkfast
- B. spanning-tree loopguard default
- C. spanning-tree backbonefast
- D. spanning-tree portfast bpduguard

**Answer:** D

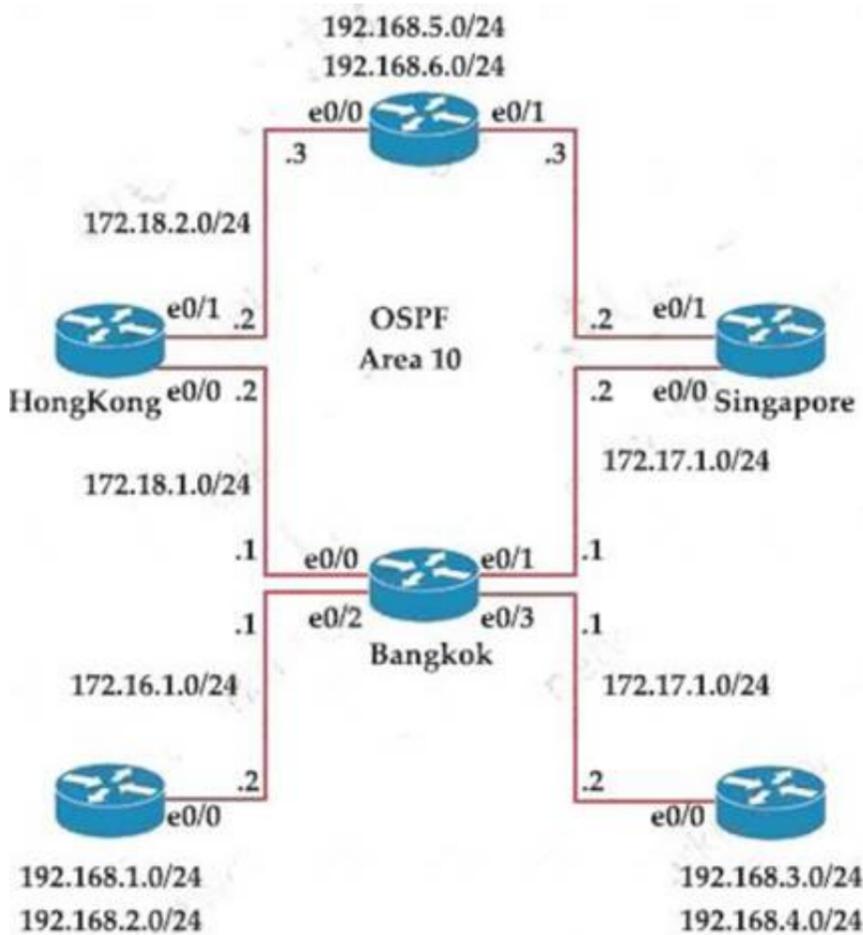
**Explanation:**

[https://www.cisco.com/c/en/us/td/docs/cloud-systems-management/network-automation-and-management/dnacenter/tech\\_notes/b\\_dnac\\_sda\\_lan\\_automation\\_deployment.html](https://www.cisco.com/c/en/us/td/docs/cloud-systems-management/network-automation-and-management/dnacenter/tech_notes/b_dnac_sda_lan_automation_deployment.html)

**NEW QUESTION 219**

- (Exam Topic 2)

Exhibit:



Bangkok is using ECMP to reach to the 192.168.5.0/24 network. The administrator must configure Bangkok in such a way that Telnet traffic from 192.168.3.0/24 and 192.168.4.0/24 networks uses the HongKong router as the preferred router. Which set of configurations accomplishes this task?

- A. access-list 101 permit tcp 192.168.3.0 0.0.0.255 192.168.5.0 0.0.0.255access-list 101 permit tcp 192.168.4.0 0.0.0.255 192.168.5.0 0.0.0.255!route-map PBR1 permit 10 match ip address 101set ip next-hop 172.18.1.2 interface Ethernet0/3ip policy route-map PBR1
- B. access-list 101 permit tcp 192.168.3.0 0.0.0.255 192.168.5.0 0.0.0.255 eq 23access-list 101 permit tcp 192.168.4.0 0.0.0.255 192.168.5.0 0.0.0.255 eq 23!route-map PBR1 permit 10 match ip address 101set ip next-hop 172.18.1.2 interface Ethernet0/1ip policy route-map PBR1
- C. access-list 101 permit tcp 192.168.3.0 0.0.0.255 192.168.5.0 0.0.0.255 eq 23access-list 101 permit tcp 192.168.4.0 0.0.0.255 192.168.5.0 0.0.0.255 eq 23!route-map PBR1 permit 10 match ip address 101set ip next-hop 172.18.1.2!interface Ethernet0/3ip policy route-map PBR1
- D. access-list 101 permit tcp 192.168.3.0 0.0.0.255 192.168.5.0 0.0.0.255access-list 101 permit tcp 192.168.4.0 0.0.0.255 192.168.5.0 0.0.0.255!route-map PBR1 permit 10match ip address 101set ip next-hop 172.18.1.2!interface Ethernet0/1ip policy route-map PBR1

**Answer: C**

**Explanation:**

We need to use Policy Based Routing (PBR) here on Bangkok router to match the traffic from 192.168.3.0/24 & 192.168.4.0/24 and “set ip next-hop” to HongKong router(172.18.1.2 in this case).

Note: Please notice that we have to apply the PBR on incoming interface e0/3 to receive traffic from 192.168.3.0/24 and 192.168.4.0/24.

**NEW QUESTION 220**

- (Exam Topic 2)

What are two characteristics of VRF instance? (Choose two.)

- A. All VRFs share customers routing and CEF tables .
- B. An interface must be associated to one VRF.
- C. Each VRF has a different set of routing and CEF tables
- D. It is defined by the VPN membership of a customer site attached to a P device.
- E. A customer site can be associated to different VRFs

**Answer: BC**

**Explanation:**

Reference:

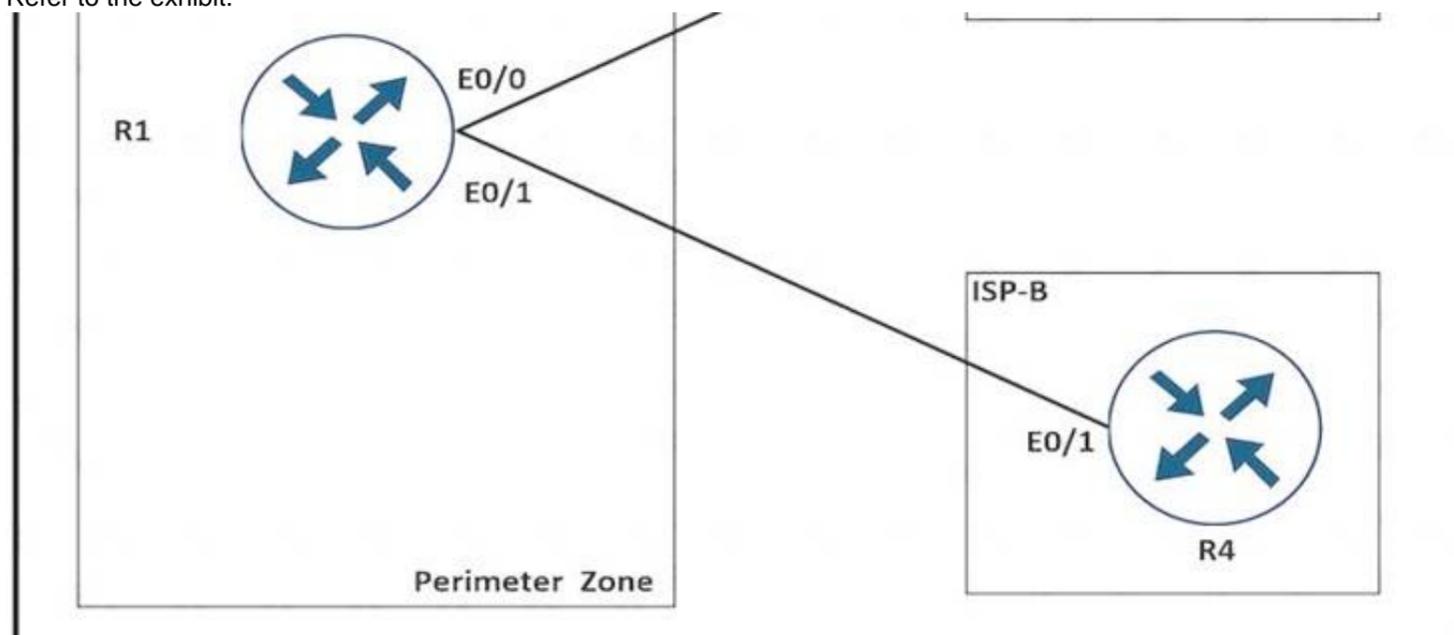
[https://www.cisco.com/c/en/us/td/docs/ios-xml/ios/ipswitch\\_cef/configuration/xs-3s/isw-cef-xe-3s-book/isw-cef](https://www.cisco.com/c/en/us/td/docs/ios-xml/ios/ipswitch_cef/configuration/xs-3s/isw-cef-xe-3s-book/isw-cef)

[https://www.cisco.com/c/en/us/td/docs/ios-xml/ios/mp\\_l3\\_vpns/configuration/15-s/mp-l3-vpns-15-s-book/mp-b](https://www.cisco.com/c/en/us/td/docs/ios-xml/ios/mp_l3_vpns/configuration/15-s/mp-l3-vpns-15-s-book/mp-b)

**NEW QUESTION 223**

- (Exam Topic 2)

Refer to the exhibit.



A network is under a cyberattack. A network engineer connected to R1 by SSH and enabled the terminal monitor via SSH session to find the source and destination of the attack. The session was flooded with messages, which made it impossible for the engineer to troubleshoot the issue. Which command resolves this issue on R1?

- A. no terminal monitor
- B. (config)#terminal no monitor
- C. #terminal no monitor
- D. (config)#no terminal monitor

**Answer: C**

**Explanation:**

To turn off terminal monitor, use “terminal no monitor” in the enable mode

**NEW QUESTION 227**

- (Exam Topic 2)

Refer to Exhibit.

```

Ipv6 unicast-routing
!
Router ospfv3 4
  Router-id 192.168.1.1
!
Interface E 0/0
  Ipv6 enable
  Ip address 10.1.1.1 255.255.255.0
  Ospf3 4 area 0 ipv4
  No shut
!
Interface Loopback0
  Ipv6 enable
  Ipv4 172.16.1.1 255.255.255.0
  Ospf3 4 area 0 ipv4
  
```

The network administrator configured the branch router for IPv6 on the E0/0 interface. The neighboring router is fully configured to meet requirements, but the neighbor relationship is not coming up. Which action fixes the problem on the branch router to bring the IPv6 neighbors up?

- A. Enable the IPv4 address family under the router ospfv3 4 process by using the address-family ipv4 unicast command
- B. Disable IPv6 on the E0/0 interface using the no ipv6 enable command
- C. Enable the IPv4 address family under the E0/0 interface by using the address-family ipv4 unicast command
- D. Disable OSPF for IPv4 using the no ospfv3 4 area 0 ipv4 command under the E0/0 interface

**Answer:** A

**Explanation:**

Once again, Cisco changed the IOS configuration commands required for OSPFv3 configuration. The new OSPFv3 configuration uses the “ospfv3” keyword instead of the earlier “ipv6 router ospf” routing process command and “ipv6 ospf” interface commands. The Open Shortest Path First version 3 (OSPFv3) address families feature enables both IPv4 and IPv6 unicast traffic to be supported. With this feature, users may have two processes per interface, but only one process per address family (AF).

**NEW QUESTION 232**

- (Exam Topic 2)

Which feature drops packets if the source address is not found in the snooping table?

- A. IPv6 Source Guard
- B. IPv6 Destination Guard
- C. IPv6 Prefix Guard
- D. Binding Table Recovery

**Answer:** A

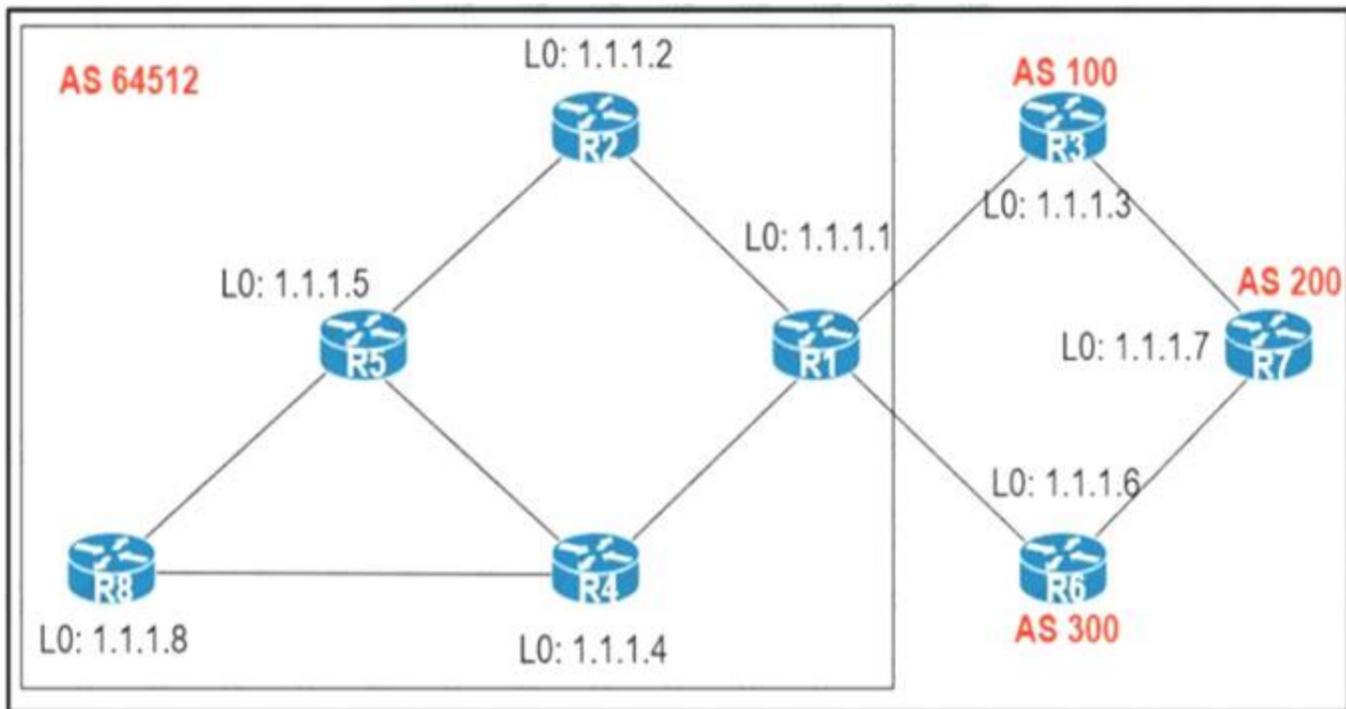
**Explanation:**

[https://www.cisco.com/c/en/us/td/docs/ios-xml/ios/ipv6\\_fhsec/configuration/xs-3s/ip6f-xe-3s-book/ip6-snoopin](https://www.cisco.com/c/en/us/td/docs/ios-xml/ios/ipv6_fhsec/configuration/xs-3s/ip6f-xe-3s-book/ip6-snoopin)

**NEW QUESTION 236**

- (Exam Topic 2)

Exhibit:



An engineer configured R2 and R5 as route reflectors and noticed that not all routes are sent to R1 to advertise to the eBGP peers. Which iBGP routers must be configured as route reflectors to advertise all routes to restore reachability across all networks?

- A. R1 and R4
- B. R1 and R5
- C. R4 and R5
- D. R2 and R5

**Answer:** C

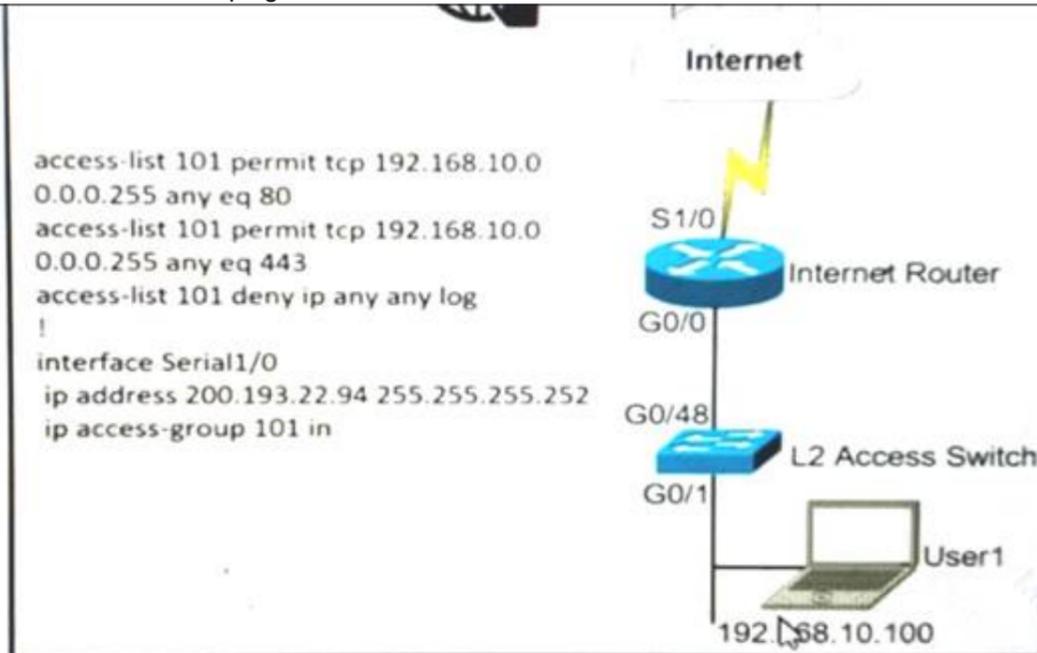
**Explanation:**

When R2 & R5 are route reflectors (RRs), routes from R4 & R8 are advertised to R5 and R5 advertises to R2. But R2 would drop them as R2 is also a RR. Therefore some routes are missing on R1 to advertise to eBGP peers.  
 Good reference: <https://www.ciscolive.com/c/dam/r/ciscolive/emea/docs/2015/pdf/TECRST-2310.pdf>  
 Route reflectors (RR) must be fully iBGP meshed so we cannot configure RR on both R1 and R5.  
 We should choose routers at the center of the topology RRs, in this case R4 & R5.

**NEW QUESTION 239**

- (Exam Topic 2)

A network administrator is tasked to permit http and https traffic only toward the internet from the User1 laptop to adhere to company's security policy. The administrator can still ping to www.cisco.com Which interface should the access list 101 be applied to resolve this issue?



- A. Interface G0/48 in the incoming direction
- B. Interface G0/0 in the outgoing direction.
- C. Interface S1/0 in the outgoing direction.
- D. Interface G0/0 in the incoming direction.

**Answer: D**

**NEW QUESTION 240**

- (Exam Topic 2)

Which two components are needed for a service provider to utilize the LVPN MPLS application? (Choose two.)

- A. The P routers must be configured for MP-iBGP toward the PE routers
- B. The P routers must be configured with RSVP.
- C. The PE routers must be configured for MP-iBGP with other PE routers
- D. The PE routers must be configured for MP-eBGP to connect to CEs
- E. The P and PE routers must be configured with LDP or RSVP

**Answer: CE**

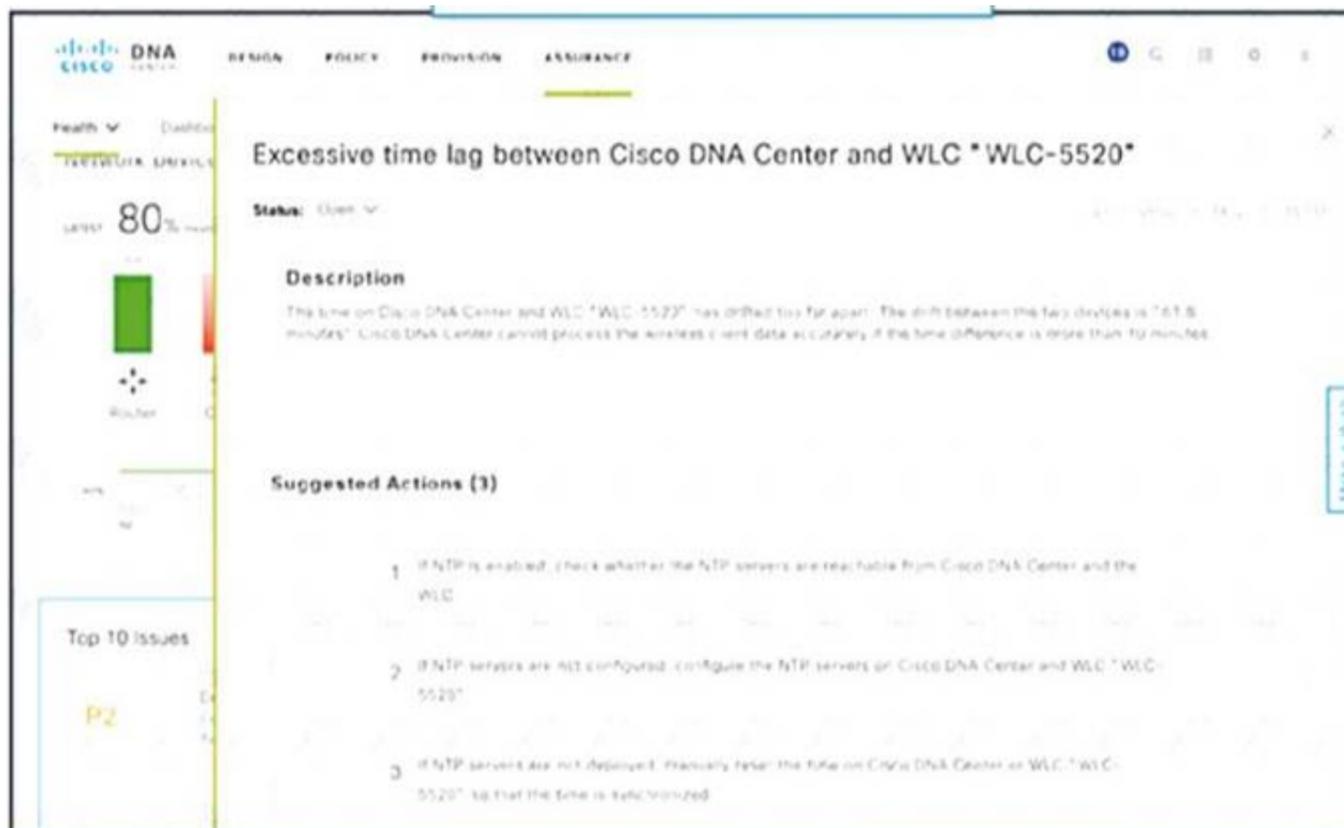
**Explanation:**

MPLS Network Protocols  
 + IGP: OSPF, EIGRP, IS-IS on core facing and core links+ RSVP and/or LDP on core and/or core facing links  
 ->  
 + MP-iBGP on PE devices (for MPLS services), MP-BGP: Multiprotocol Border Gateway Protocol, used for MPLS L3 VPN -> .  
 Reference: <https://www.uio.no/studier/emner/matnat/ifi/IN3230/h19/kursmaterie//mpls-lecture.pdf>

**NEW QUESTION 243**

- (Exam Topic 2)

Exhibit:



NTP is configured across the network infrastructure and Cisco DNA Center. An NTP issue was reported on the Cisco DNA Center at 17:15. Which action resolves the issue?

- A. Check and resolve reachability between the WLC and the NTP server
- B. Reset the NTP server to resolve any synchronization issues for all devices
- C. Check and resolve reachability between Cisco DNA Center and the NTP server
- D. Check and configure NTP on the WLC and synchronize with Cisco DNA Center

Answer: D

**Explanation:**

Excessive time lag between Cisco DNA Center and device: The time difference between Cisco DNA Center and the device IP Address has drifted too far apart. CiscoDNA Center cannot process the device data accurately if the time difference is more than 3 minutes.

Reference:

<https://www.cisco.com/c/en/us/td/docs/cloud-systems-management/network-automation-and-management/dna-c>

**NEW QUESTION 246**

- (Exam Topic 2)

What are two functions of IPv6 Source Guard? (Choose two.)

- A. It uses the populated binding table for allowing legitimate traffic.
- B. It works independent from IPv6 neighbor discovery.
- C. It denies traffic from unknown sources or unallocated addresses.
- D. It denies traffic by inspecting neighbor discovery packets for specific pattern.
- E. It blocks certain traffic by inspecting DHCP packets for specific sources.

Answer: AC

**Explanation:**

IPv6 source guard is an interface feature between the populated binding table and data traffic filtering.

IPv6 source guard can deny traffic from unknown sources or unallocated addresses.

**NEW QUESTION 251**

- (Exam Topic 2)

An engineer configured two routers connected to two different service providers using BGP with default attributes. One of the links is presenting high delay, which causes slowness in the network. Which BGP attribute must the engineer configure to avoid using the high-delay ISP link if the second ISP link is up?

- A. LOCAL\_PREF
- B. MED
- C. WEIGHT
- D. AS-PATH

Answer: A

**NEW QUESTION 255**

- (Exam Topic 2)

Refer to the exhibit.

```

Debug output:
username: USER55
password:
Aug 26 12:39:23.813: TPLUS: Queuing AAA Authentication request 4950 for processing
Aug 26 12:39:23.813: TPLUS(00001356) login timer started 1020 sec timeout
Aug 26 12:39:23.813: TPLUS: processing authentication continue request id 4950
Aug 26 12:39:23.813: TPLUS: Authentication continue packet generated for 4950
Aug 26 12:39:23.813: TPLUS(00001356)/0/WRITE/3A72C8D0: Started 5 sec timeout
!
!----- output omitted -----!
!
Aug 26 12:40:01.241: TAC+: using previously set server 192.168.1.3 from group tacacs+
Aug 26 12:40:01.241: TAC+: Opening TCP/IP to 192.168.1.3/49 timeout=5
Aug 26 12:40:01.249: TAC+: Opened TCP/IP handle 0x3BE31D1C to 192.168.1.3/49
Aug 26 12:40:01.249: TAC+: Opened 192.168.1.3 index=1
Aug 26 12:40:01.250: TAC+: 192.168.1.3 (3653537180) AUTHOR/START queued
Aug 26 12:40:01.449: TAC+: (3653537180) AUTHOR/START processed
Aug 26 12:40:01.449: TAC+: (-641430116): received author response status = FAIL
Aug 26 12:40:01.450: TAC+: Closing TCP/IP 0x3BE31D1C connection to 192.168.1.3/49

```

A network administrator logs into the router using TACACS+ username and password credentials, but the administrator cannot run any privileged commands. Which action resolves the issue?

- A. Configure TACACS+ synchronization with the Active Directory admin group
- B. Configure the username from a local database
- C. Configure full access for the username from TACACS+ server
- D. Configure an authorized IP address for this user to access this router

**Answer: C**

**NEW QUESTION 258**

- (Exam Topic 2)

What are two MPLS label characteristics? (Choose two.)

- A. The label edge router swaps labels on the received packets.
- B. Labels are imposed in packets after the Layer 3 header.
- C. LDP uses TCP for reliable delivery of information.
- D. An MPLS label is a short identifier that identifies a forwarding equivalence class.
- E. A maximum of two labels can be imposed on an MPLS packet.

**Answer: CD**

**Explanation:**

Reference:

<https://www.cisco.com/c/en/us/support/docs/multiprotocol-label-switching-mpls/mpls/4649-mpls-faq-4649.html>

**NEW QUESTION 260**

- (Exam Topic 2)

In which two ways does the IPv6 First-Hop Security Binding Table operate? (Choose two.)

- A. by IPv6 routing protocols to securely build neighborships without the need of authentication
- B. by the recovery mechanism to recover the binding table in the event of a device reboot
- C. by IPv6 HSRP to make sure neighbors are authenticated before being used as gateways
- D. by various IPv6 guard features to validate the data link layer address
- E. by storing hashed keys for IPsec tunnels for the built-in IPsec features

**Answer: BD**

**Explanation:**

Overview of the IPv6 First-Hop Security Binding Table

A database table of IPv6 neighbors connected to the device is created from information sources such as NDP snooping. This database, or binding table, is used by various IPv6 guard features to validate the link-layer address (LLA), the IPv4 or IPv6 address, and the prefix binding of the neighbors to prevent spoofing and redirect attacks.

IPv6 First-Hop Security Binding Table Recovery Mechanism The IPv6 first-hop security binding table recovery mechanism enables the binding table to recover in the event of a device reboot.

Reference:

[https://www.cisco.com/c/en/us/td/docs/ios-xml/ios/ipv6\\_fhsec/configuration/15-s/ip6-fhs-bind-table.html](https://www.cisco.com/c/en/us/td/docs/ios-xml/ios/ipv6_fhsec/configuration/15-s/ip6-fhs-bind-table.html)

**NEW QUESTION 264**

- (Exam Topic 2)

What are two functions of MPLS Layer 3 VPNs? (Choose two.)

- A. LDP and BGP can be used for Pseudowire signaling.
- B. It is used for transparent point-to-multipoint connectivity between Ethernet links/sites.
- C. BGP is used for signaling customer VPNv4 routes between PE nodes.
- D. A packet with node segment ID is forwarded along with shortest path to destination.
- E. Customer traffic is encapsulated in a VPN label when it is forwarded in MPLS network.

**Answer: CE**

**Explanation:**

MPLS Layer-3 VPNs provide IP connectivity among CE sites\* MPLS VPNs enable full-mesh, hub-and-spoke, and hybrid IP connectivity\* CE sites connect to the MPLS network via IP peering across PE-CE links\* MPLS Layer-3 VPNs are implemented via VRFs on PE edge nodes\* VRFs providing customer routing and forwarding segmentation\* BGP used for signaling customer VPN (VPNv4) routes between PE nodes\* To ensure traffic separation, customer traffic is encapsulated in an additional VPN label when forwarded in MPLS network\* Key applications are layer-3 business VPN services, enterprise network segmentation, and segmented layer-3 Data Center access

Reference: <https://www.ciscolive.com/c/dam/r/ciscolive/us/docs/2018/pdf/BRKMPL-1100.pdf>

**NEW QUESTION 265**

- (Exam Topic 2)

```
access-list 1 permit 1.1.1.0 0.0.0.255
!
route-map FILTER1 deny 10
match ip address 1
!
router eigrp 1
distribute-list route-map FILTER1 in
```

Refer to the exhibit. Which action restores the routes from neighbors while still filtering 1.1.1.0/24?

- A. Add a second line in the access list to permit any.
- B. Modify the route map to permit the access list instead of deny it
- C. Modify the access list to deny instead of permit it.
- D. Add a second sequence in the route map permit 20

**Answer: D**

**NEW QUESTION 269**

- (Exam Topic 1)

Which security feature can protect DMVPN tunnels?

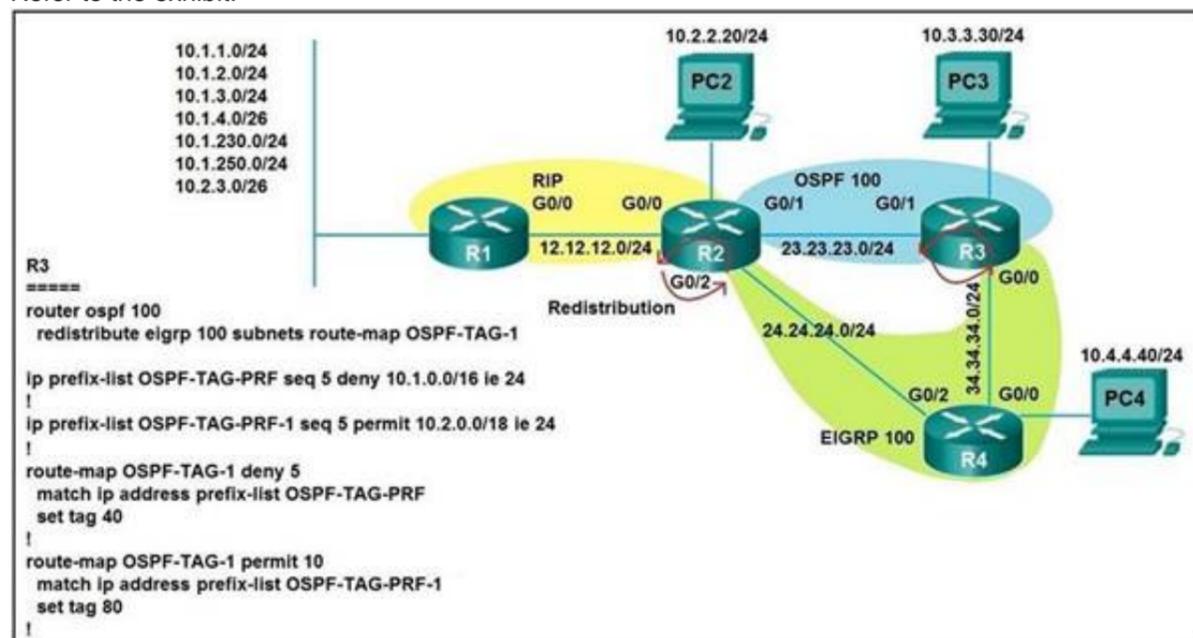
- A. IPsec
- B. TACACS+
- C. RTBH
- D. RADIUS

**Answer: A**

**NEW QUESTION 270**

- (Exam Topic 1)

Refer to the exhibit.



Which subnet is redistributed from EIGRP to OSPF routing protocols?

- A. 10.2.2.0/24
- B. 10.1.4.0/26
- C. 10.1.2.0/24
- D. 10.2.3.0/26

**Answer: A**

**NEW QUESTION 275**

- (Exam Topic 1)

Drag and Drop the IPv6 First-Hop Security features from the left onto the definitions on the right.

IPv6 DHCPv6 Guard	Block a malicious host and permit the router from a legitimate route.
IPv6 Binding Table	Block reply and advertisement messages from unauthorized DHCP servers and relay agents.
IPv6 Source Guard	Create a binding table that is based on NS and NA messages.
IPv6 RA Guard	Filter inbound traffic on Layer 2 switch ports that are not in the IPv6 binding table.
IPv6 ND Inspection	Create IPv6 neighbors connected to the device from information sources such as NDP snooping.

- A. Mastered
- B. Not Mastered

**Answer:** A

**Explanation:**

Graphical user interface, chart Description automatically generated

**NEW QUESTION 279**

- (Exam Topic 1)

Refer to the exhibit.

```
ip dhcp pool 1
network 200.30.30.0/24
default-router 200.30.30.100
lease 40
!
ip dhcp pool 2
network 200.30.40.0/24
default-router 200.30.40.100
lease 40
!
```

The server for the finance department is not reachable consistently on the 200.30.40.0/24 network and after every second month it gets a new IP address. Which two actions must be taken to resolve this Issue? (Choose two.)

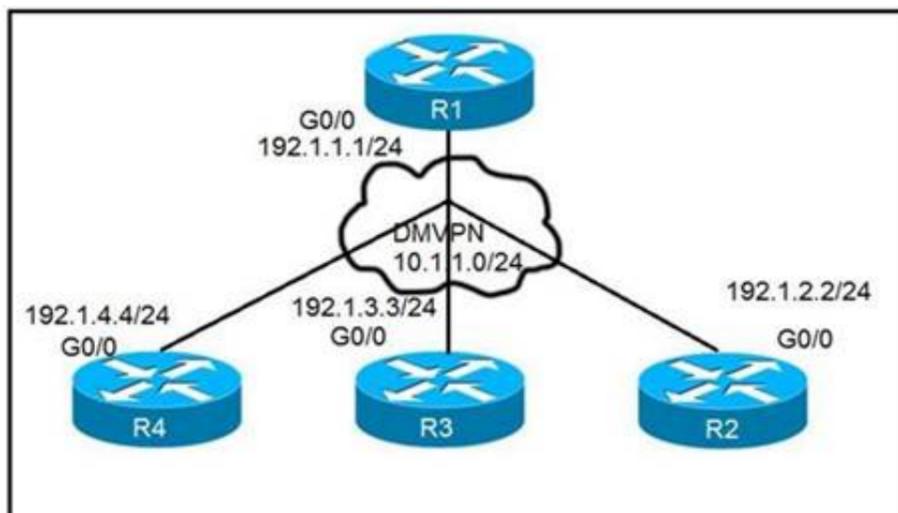
- A. Configure the server to use DHCP on the network with default gateway 200 30.40.100.
- B. Configure the server with a static IP address and default gateway.
- C. Configure the router to exclude a server IP address.
- D. Configure the server to use DHCP on the network with default gateway 200 30.30.100.
- E. Configure the router to exclude a server IP address and default gateway.

**Answer:** BC

**NEW QUESTION 282**

- (Exam Topic 1)

Refer to the exhibits.



```

On R1:
R1(config)# interface tunnel 1
R1(config-if)# ip address 10.1.1.1 255.255.255.0
R1(config-if)# tunnel source 192.1.1.1
R1(config-if)# tunnel mode gre multipoint
R1(config-if)# ip nhrp network-id 111

On R2:
R2(config)# interface tunnel 1
R2(config-if)# ip address 10.1.1.2 255.255.255.0
R2(config-if)# tunnel source FastEthernet0/0
R2(config-if)# tunnel mode gre multipoint
R2(config-if)# ip nhrp network-id 222
R2(config-if)# ip nhrp nhs 10.1.1.1
R2(config-if)# ip nhrp map 10.1.1.1 192.1.1.1

On R3:
R3(config)# interface tunnel 1
R3(config-if)# ip address 10.1.1.3 255.255.255.0
R3(config-if)# tunnel source FastEthernet0/0
R3(config-if)# tunnel mode gre multipoint
R3(config-if)# ip nhrp network-id 333 R3(config-if)# ip nhrp nhs 10.1.1.1
R3(config-if)# ip nhrp map 10.1.1.1 192.1.1.1

On R4:
R4(config)# interface tunnel 1
R4(config-if)# ip address 10.1.1.4 255.255.255.0
R4(config-if)# tunnel source FastEthernet0/0
R4(config-if)# tunnel mode gre multipoint
R4(config-if)# ip nhrp network-id 444
R4(config-if)# ip nhrp nhs 10.1.1.1
R4(config-if)# ip nhrp map 10.1.1.1 192.1.1.1
    
```

Phase-3 tunnels cannot be established between spoke-to-spoke in DMVPN. Which two commands are missing? (Choose two.)

- A. The ip nhrp redirect command is missing on the spoke routers.
- B. The ip nhrp shortcut command is missing on the spoke routers.
- C. The ip nhrp redirect commands is missing on the hub router.
- D. The ip nhrp shortcut commands is missing on the hub router.
- E. The ip nhrp map command is missing on the hub router.

**Answer:** BC

**NEW QUESTION 285**

- (Exam Topic 1)  
 Refer to the exhibit.

```

R1 #show ip bgp summary
BGP router identifier 192.168.1.1, local AS number 65000
<output omitted>
Neighbor    V AS   MsgRcvd  MsgSent   Tblver  InQ  OutQ  Up/Down  State/PfxRcd
192.168.2.2 4 65000    28  28        22    0    0   00:21:31      0
R1#show ip bgp
BGP table version is 22, local router ID is 192.168.1.1
Status codes: s suppressed, d damped, h history, * valid, > best, i – internal,
               r RIB-failure, s stale, m multipath, b backup-path, f RT-Filter,
               x best-external, a additional-path, C RIB-compressed,
Origin codes: i – IGP, e – EGP, ? – incomplete
RPKI validation codes: V valid, I invalid, N Not found

   Network            Next Hop           Metric LocPrf   Weight    Path
*> 172.16.25.0/24     209.165.200.225   0          0          32768     ?
R1#

R2 #show ip bgp summary
BGP router identifier 192.168.2.2, local AS number 65000
<output omitted>
Neighbor    V AS   MsgRcvd  MsgSent   Tblver  InQ  OutQ  Up/Down  State/PfxRcd
192.168.1.1 4 65000    29  28         3    0    0   00:22:07      1
192.168.3.3 4 65000     7   8         3    0    0   00:02:55      0
R2#show ip bgp
BGP table version is 3, local router ID is 192.168.2.2
Status codes: s suppressed, d damped, h history, * valid, > best, i – internal,
               r RIB-failure, s stale, m multipath, b backup-path, f RT-Filter,
               x best-external, a additional-path, C RIB-compressed,
Origin codes: i – IGP, e – EGP, ? – incomplete
RPKI validation codes: V valid, I invalid, N Not found

   Network            Next Hop           Metric LocPrf   Weight    Path
*i 172.16.25.0/24     209.165.200.225   0         100         0         ?
R2#

R3 #show ip bgp summary
BGP router identifier 192.168.3.3, local AS number 65000
BGP table version is 4, main routing table version 4
Neighbor    V AS   MsgRcvd  MsgSent   Tblver  InQ  OutQ  Up/Down  State/PfxRcd
192.168.2.2 4 65000     8   7         4    0    0   00:03:08      0
R3#

```

R2 is a route reflector, and R1 and R3 are route reflector clients. The route reflector learns the route to 172.16.25.0/24 from R1, but it does not advertise to R3. What is the reason the route is not advertised?

- A. R2 does not have a route to the next hop, so R2 does not advertise the prefix to other clients.
- B. Route reflector setup requires full IBGP mesh between the routers.
- C. In route reflector setup, only classful prefixes are advertised to other clients.
- D. In route reflector setups, prefixes are not advertised from one client to another.

**Answer:** A

**NEW QUESTION 288**

- (Exam Topic 1)

Refer to the exhibit.

```

R1#show policy-map control-plane
Control Plane
Class-map: NMS (match-all)
500461 packets, 24038351 bytes
5 minute offered rate 1390000 bps, drop rate 0 bps
police:
  cir 50000 bps, bc 5000 bytes
conformed 50444 packets, 24031001 bytes; actions:
transmit
exceeded 990012 packets, 94030134 bytes; actions
drop conformed 4000 bps, exceed 0 bps
R1#

```

A company is evaluating multiple network management system tools. Trending graphs generated by SNMP data are returned by the NMS and appear to have multiple gaps. While troubleshooting the issue, an engineer noticed the relevant output. What solves the gaps in the graphs?

- A. Remove the exceed-rate command in the class map.
- B. Remove the class map NMS from being part of control plane policing.
- C. Configure the CIR rate to a lower value that accommodates all the NMS tools
- D. Separate the NMS class map in multiple class maps based on the specific protocols with appropriate CoPP actions

**Answer:** D

**Explanation:**

Reference: [https://tools.cisco.com/security/center/resources/copp\\_best\\_practices](https://tools.cisco.com/security/center/resources/copp_best_practices)

The class-map NMS in the exhibit did not classify traffic into specific protocols so many packets were dropped. We should create some class-map to classify the receiving traffic. It is also a recommendation of CoPP/CP policy:

“Developing a CPP policy starts with the classification of the control plane traffic. To that end, the control plane traffic needs to be first identified and separated into different class maps.”

**NEW QUESTION 289**

- (Exam Topic 1)

Drag and drop the MPLS terms from the left onto the correct definitions on the right.

PE	device that forwards traffic based on labels
P	path that the labeled packet takes
CE	device that is unaware of MPLS labeling
LSP	device that removes and adds the MPLS labeling

- A. Mastered
- B. Not Mastered

**Answer:** A

**Explanation:**

PE	P
P	LSP
CE	CE
LSP	PE

**NEW QUESTION 290**

- (Exam Topic 1)

Which SNMP verification command shows the encryption and authentication protocols that are used in SNMPV3?

- A. show snmp group
- B. show snmp user
- C. show snmp
- D. show snmp view

**Answer:** B

**NEW QUESTION 294**

- (Exam Topic 1)

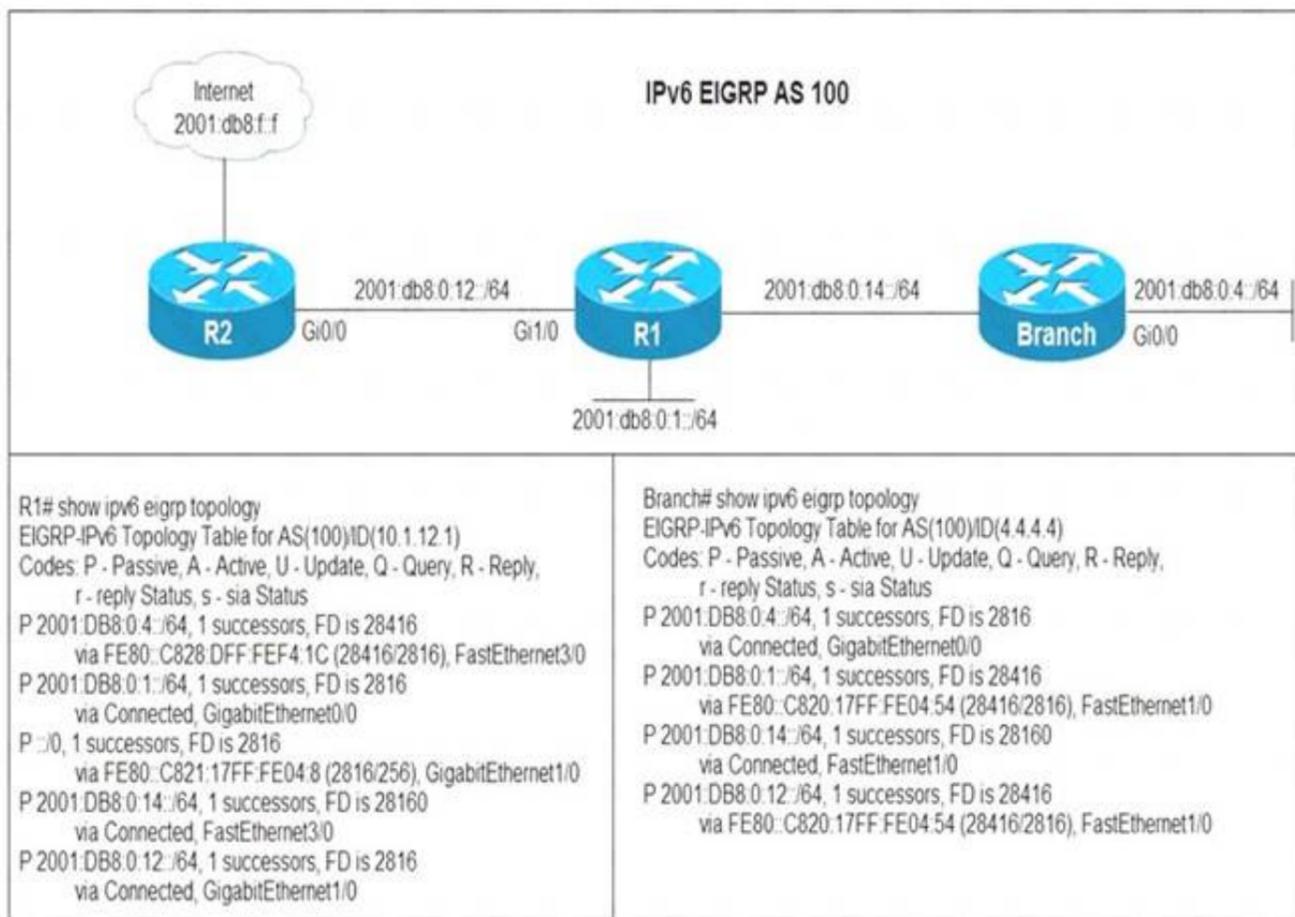
Which protocol is used to determine the NBMA address on the other end of a tunnel when mGRE is used?

- A. NHRP
- B. IPsec
- C. MP-BGP
- D. OSPF

**Answer:** A

**NEW QUESTION 295**

- (Exam Topic 1)  
Refer to the exhibit.



Users in the branch network of 2001:db8:0:4::/64 report that they cannot access the Internet. Which command is issued in IPv6 router EIGRP 100 configuration mode to solve this issue?

- A. Issue the eigrp stub command on R1
- B. Issue the no neighbor stub command on R2.
- C. Issue the eigrp command on R2.
- D. Issue the no eigrp stub command on R1.

**Answer: D**

**NEW QUESTION 296**

- (Exam Topic 1)  
Refer to the exhibit.

```
R1#show ip ssh
SSH Disabled – version 1.99
%Please create RSA keys to enable SSH (and of atleast 768 bits for SSH v2).
Authentication timeout: 120 secs; Authentication retries: 3
Minimum expected Diffie Hellman key size: 1024 bits
IOS Keys in SECSH format (ssh-rsa, base64 encoded) : NONE
R1#
```

An engineer is trying to connect to a device with SSH but cannot connect. The engineer connects by using the console and finds the displayed output when troubleshooting. Which command must be used in configuration mode to enable SSH on the device?

- A. no ip ssh disable
- B. ip ssh enable
- C. ip ssh version 2
- D. crypto key generate rsa

**Answer: D**

**NEW QUESTION 300**

- (Exam Topic 1)  
Refer to the exhibit.

```

Router#show access-lists
Standard IP access list 1
  10 permit 192.168.2.2 (1 match)
Router#
Router#show route-map
route-map RM-OSPF-DL, permit, sequence 10
  Match clauses:
    ip address (access-lists): 1
  Set clauses:
  Policy routing matches: 0 packets, 0 bytes
Router#
Router#show running-config | section ospf
router ospf 1
  network 192.168.1.1 0.0.0.0 area 0
  network 192.168.12.0 0.0.0.255 area 0
  distribute-list route-map RM-OSPF-DL in
Router#
    
```

An engineer is trying to block the route to 192.168.2.2 from the routing table by using the configuration that is shown. The route is still present in the routing table as an OSPF route. Which action blocks the route?

- A. Use an extended access list instead of a standard access list.
- B. Change sequence 10 in the route-map command from permit to deny.
- C. Use a prefix list instead of an access list in the route map.
- D. Add this statement to the route map: route-map RM-OSPF-DL deny 20.

**Answer: B**

#### NEW QUESTION 303

- (Exam Topic 1)

Which two statements about redistributing EIGRP into OSPF are true? (Choose two)

- A. The redistributed EIGRP routes appear as type 3 LSAs in the OSPF database
- B. The redistributed EIGRP routes appear as type 5 LSAs in the OSPF database
- C. The administrative distance of the redistributed routes is 170
- D. The redistributed EIGRP routes appear as OSPF external type 1
- E. The redistributed EIGRP routes are placed into an OSPF area whose area ID matches the EIGRP autonomous system number
- F. The redistributed EIGRP routes appear as OSPF external type 2 routes in the routing table

**Answer: BF**

#### NEW QUESTION 305

- (Exam Topic 1)

A network engineer is investigating a flapping (up/down) interface issue on a core switch that is synchronized to an NTP server. Log output currently does not show the time of the flap. Which command allows the logging on the switch to show the time of the flap according to the clock on the device?

- A. service timestamps log uptime
- B. clock summer-time mst recurring 2 Sunday mar 2:00 1 Sunday nov 2:00
- C. service timestamps log datetime localtime show-timezone
- D. clock calendar-valid

**Answer: C**

#### Explanation:

By default, Catalyst switches add a simple uptime timestamp to logging messages. This is a cumulative counter that shows the hours, minutes, and seconds since the switch has been booted up

#### NEW QUESTION 308

- (Exam Topic 1)

What is a limitation of IPv6 RA Guard?

- A. It is not supported in hardware when TCAM is programmed
- B. It does not offer protection in environments where IPv6 traffic is tunneled.
- C. It cannot be configured on a switch port interface in the ingress direction
- D. Packets that are dropped by IPv6 RA Guard cannot be spanned

**Answer: B**

#### Explanation:

Restrictions for IPv6 RA Guard

- > The IPv6 RA Guard feature does not offer protection in environments where IPv6 traffic is tunneled.
- > This feature is supported only in hardware when the ternary content addressable memory (TCAM) is programmed.

- This feature can be configured on a switch port interface in the ingress direction.
- This feature supports host mode and router mode.
- This feature is supported only in the ingress direction; it is not supported in the egress direction.
- This feature is not supported on EtherChannel and EtherChannel port members.
- This feature is not supported on trunk ports with merge mode.
- This feature is supported on auxiliary VLANs and private VLANs (PVLANS). In the case of PVLANS, primary VLAN features are inherited and merged with port features.
- Packets dropped by the IPv6 RA Guard feature can be spanned.

Reference:

[https://www.cisco.com/c/en/us/td/docs/ios-xml/ios/ipv6\\_fhsec/configuration/xe-16-10/ip6f-xe-16-10-book/ip6-r](https://www.cisco.com/c/en/us/td/docs/ios-xml/ios/ipv6_fhsec/configuration/xe-16-10/ip6f-xe-16-10-book/ip6-r)

**NEW QUESTION 313**

- (Exam Topic 1)

An engineer configured a leak-map command to summarize EIGRP routes and advertise specifically loopback 0 with an IP of 10.1.1.1.255.255.255.252 along with the summary route. After finishing configuration, the customer complained not receiving summary route with specific loopback address. Which two configurations will fix it? (Choose two.)

```
router eigrp 1
!
route-map Leak-Route deny 10
!
interface Serial 0/0
 ip summary-address eigrp 1 10.0.0.0 255.0.0.0 leak-map Leak-Route
```

- A. Configure access-list 1 permit 10.1.1.0.0.0.3.
- B. Configure access-list 1 permit 10.1.1.1.0.0.0.252.
- C. Configure access-list 1 and match under route-map Leak-Route.
- D. Configure route-map Leak-Route permit 10 and match access-list 1.
- E. Configure route-map Leak-Route permit 20.

**Answer:** AD

**Explanation:**

When you configure an EIGRP summary route, all networks that fall within the range of your summary are suppressed and no longer advertised on the interface. Only the summary route is advertised. But if we want to advertise a network that has been suppressed along with the summary route then we can use leak-map feature. The below commands will fix the configuration in this question:

R1(config)#access-list 1 permit 10.1.1.0 0.0.0.3

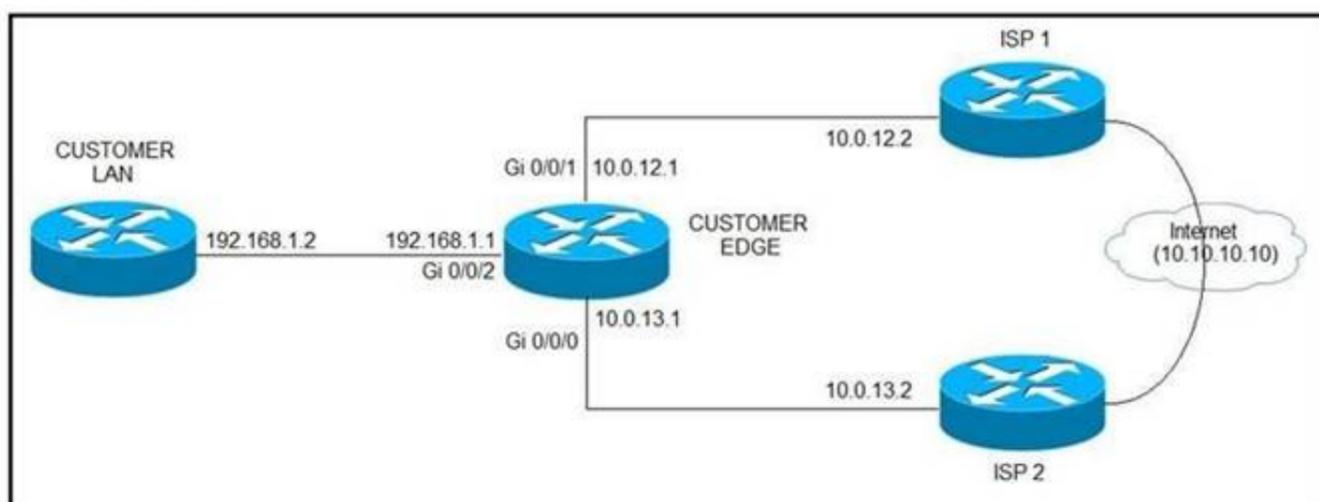
R1(config)#route-map Leak-Route permit 10 // this command will also remove the "route\_map Leak-Route deny 10" command.

R1(config-route-map)#match ip address 1

**NEW QUESTION 316**

- (Exam Topic 1)

Refer to the exhibit.



ISP 1 and ISP 2 directly connect to the Internet. A customer is tracking both ISP links to achieve redundancy and cannot see the Cisco IOS IP SLA tracking output on the router console. Which command is missing from the IP SLA configuration?

- A. Start-time 00:00
- B. Start-time 0
- C. Start-time immediately
- D. Start-time now

**Answer:** D

**Explanation:**

Reference:

[https://www.cisco.com/c/en/us/td/docs/ios-xml/ios/ipsla/configuration/15-mt/sla-15-mt-book/sla\\_icmp\\_echo.htm](https://www.cisco.com/c/en/us/td/docs/ios-xml/ios/ipsla/configuration/15-mt/sla-15-mt-book/sla_icmp_echo.htm)

**NEW QUESTION 320**

- (Exam Topic 1)

Which two methods use IPsec to provide secure connectivity from the branch office to the headquarters office? (Choose two.)

- A. DMVPN
- B. MPLS VPN
- C. Virtual Tunnel Interface (VTI)
- D. SSL VPN
- E. PPPoE

**Answer:** AC

**NEW QUESTION 325**

- (Exam Topic 1)

Which protocol does MPLS use to support traffic engineering?

- A. Tag Distribution Protocol (TDP)
- B. Resource Reservation Protocol (RSVP)
- C. Border Gateway Protocol (BGP)
- D. Label Distribution Protocol (LDP)

**Answer:** B

**Explanation:**

MPLS TE provides a way to integrate TE capabilities (such as those used on Layer 2 protocols like ATM) into Layer 3 protocols (IP). MPLS TE uses an extension to existing protocols (Intermediate System-to-Intermediate System (IS-IS), Resource Reservation Protocol (RSVP), OSPF) to calculate and establish unidirectional tunnels that are set according to the network constraint. Traffic flows are mapped on the different tunnels depending on their destination.

**NEW QUESTION 330**

- (Exam Topic 1)

An engineer is trying to copy an IOS file from one router to another router by using TFTP. Which two actions are needed to allow the file to copy? (Choose two.)

- A. Copy the file to the destination router with the copy tftp: flash: command
- B. Enable the TFTP server on the source router with the tftp-server flash: <filename> command
- C. TFTP is not supported in recent IOS versions, so an alternative method must be used
- D. Configure a user on the source router with the username tftp password tftp command
- E. Configure the TFTP authentication on the source router with the tftp-server authentication local command

**Answer:** AB

**NEW QUESTION 331**

- (Exam Topic 1)

Refer to the exhibit.

```
R1(config) # do show running-config | section line|username
username cisco secret 5 $1$yb/o$L3G5cXODxpYMSJ70PzEyo0
line con 0
  logging synchronous
line vty 0 4
  login local
  transport input telnet
R1(config) # logging console 7
R1(config) # do debug aaa authentication
R1(config) #
```

An administrator that is connected to the console does not see debug messages when remote users log in. Which action ensures that debug messages are displayed for remote logins?

- A. Enter the transport input ssh configuration command.
- B. Enter the terminal monitor exec command.
- C. Enter the logging console debugging configuration command.
- D. Enter the aaa new-model configuration command.

**Answer:** C

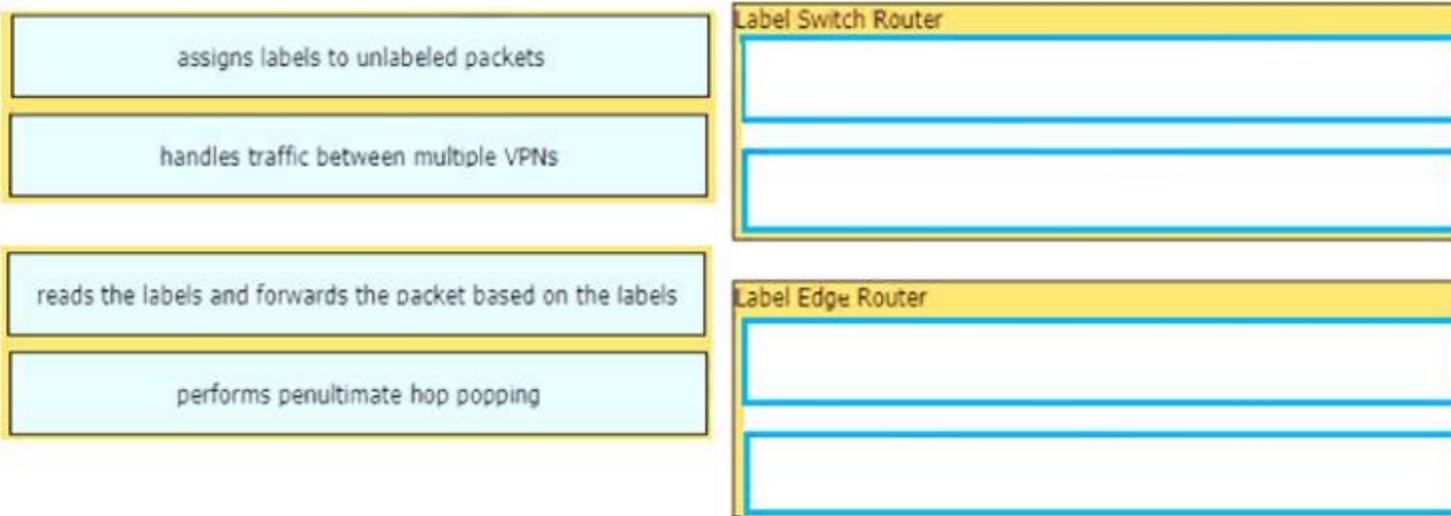
**Explanation:**

The logging console is a default and hidden command.

**NEW QUESTION 332**

- (Exam Topic 1)

Drag and drop the operations from the left onto the locations where the operations are performed on the right.



- A. Mastered
- B. Not Mastered

**Answer: A**

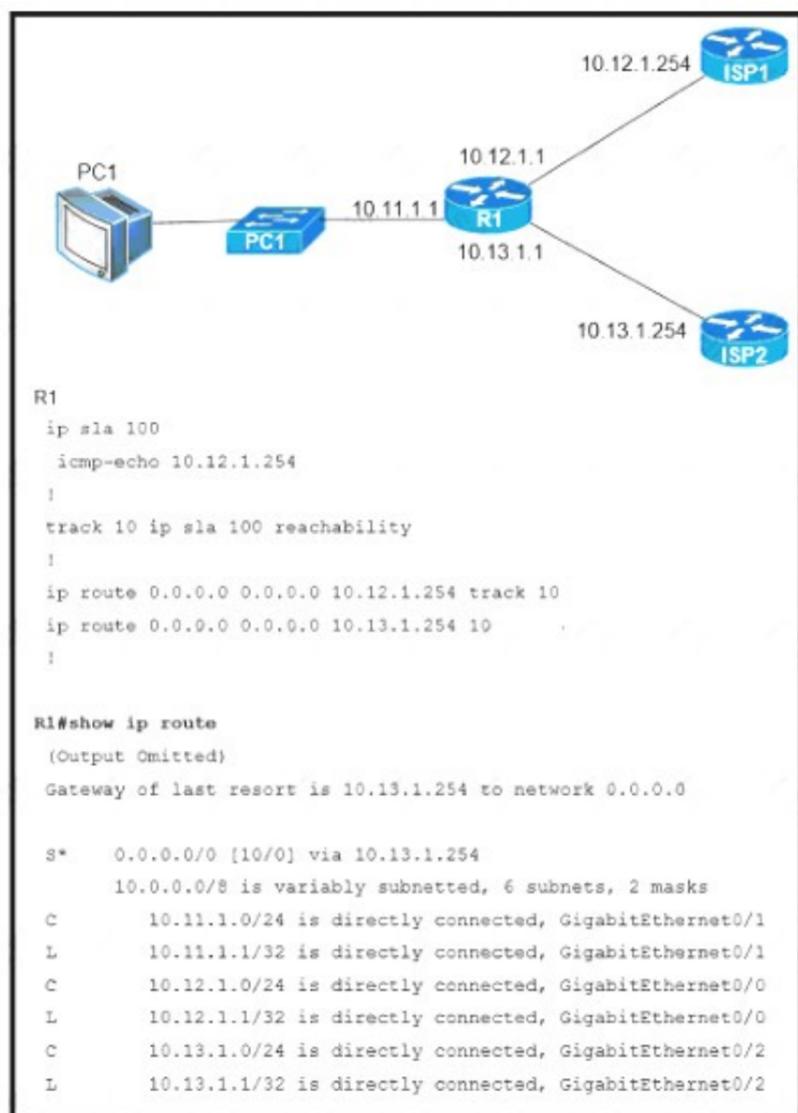
**Explanation:**

Label Switch Router 1. Reads labels and forwards the packet based on the based on the label.  
 \* 2. Performs PHP  
 Label Edge Router: 1 Assigns labels and unlabeled packets.  
 \* 2. Handles traffic between multiple VPNs

**NEW QUESTION 333**

- (Exam Topic 1)

Refer to the exhibit.



An engineer is monitoring reachability of the configured default routes to ISP1 and ISP2. The default route from ISP1 is preferred if available. How is this issue resolved?

- A. Use the icmp-echo command to track both default routes
- B. Use the same AD for both default routes
- C. Start IP SLA by matching numbers for track and ip sla commands
- D. Start IP SLA by defining frequency and scheduling it

**Answer: D**

**Explanation:**

Reference:

<https://www.cisco.com/c/en/us/support/docs/ip/ip-routing/200785-ISP-Failover-with-default-routes-using-l.html>  
 In the above configuration we have not had activated our IP SLA operation. We can start it with this command:  
 R1(config)#ip sla schedule 100 life forever start-time now Also we should specific the rate of ICMP echo:

R1(config-ip-sla-echo)#frequency 5 // Send ICMP echo every 5 seconds

#### NEW QUESTION 336

- (Exam Topic 1)

Which is statement about IPv6 inspection is true?

- A. It teams and secures bindings for stateless autoconfiguration addresses in Layer 3 neighbor tables
- B. It learns and secures bindings for stateful autoconfiguration addresses in Layer 3 neighbor tables
- C. It teams and secures bindings for stateful autoconfiguration addresses in Layer 2 neighbor tables
- D. It team and secures binding for stateless autoconfiguration addresses in Layer 2 neighbor tables.

**Answer: D**

#### NEW QUESTION 339

- (Exam Topic 1)

Which method changes the forwarding decision that a router makes without first changing the routing table or influencing the IP data plane?

- A. nonbroadcast multiaccess
- B. packet switching
- C. policy-based routing
- D. forwarding information base

**Answer: C**

#### NEW QUESTION 344

- (Exam Topic 1)

Refer to the exhibit.

```
Cat3850-Stack-2# show policy-map

Policy Map LIMIT_BGP
Class BGP
  drop

Policy Map SHAPE_BGP
Class BGP
  Average Rate Traffic Shaping
  cir 10000000 (bps)

Policy Map POLICE_BGP
Class BGP
  police cir 1000k bc 1500
  conform-action transmit
  exceed-action transmit

Policy Map COPP
Class BGP
  police cir 1000k bc 1500
  conform-action transmit
  exceed-action drop
```

Which control plane policy limits BGP traffic that is destined to the CPU to 1 Mbps and ignores BGP traffic that is sent at higher rate?

- A. policy-map SHAPE\_BGP
- B. policy-map LIMIT\_BGP
- C. policy-map POLICE\_BGP
- D. policy-map COPP

**Answer: D**

#### NEW QUESTION 348

- (Exam Topic 1)

A network engineer needs to verify IP SLA operations on an interface that shows on indication of excessive traffic.

Which command should the engineer use to complete this action?

- A. show frequency
- B. show track
- C. show reachability
- D. show threshold

Answer: B

**NEW QUESTION 351**

- (Exam Topic 1)

Drag and drop the MPLS VPN concepts from the left onto the correct descriptions on the right.

route distinguisher	propagates VPN reachability information
route target	distributes labels for traffic engineering
Resource Reservation Protocol	uniquely identifies a customer prefix
multiprotocol BGP	controls the import/export of customer prefixes

- A. Mastered
- B. Not Mastered

Answer: A

**Explanation:**

Reference:

<https://www.rogerperkin.co.uk/featured/route-distinguisher-vs-route-target/>

**NEW QUESTION 354**

- (Exam Topic 1)

Refer the exhibit.

```
R3#show policy-map control-plane
Control Plane

Service-policy output: R3_CoPP

Class-map: mgmt (match-all)
 361 packets, 73858 bytes
 5 minute offered rate 0 bps, drop rate 0 bps
 Match: access-group 120
 police:
  cir 8000 bps, bc 1500 bytes, be 1500 bytes
  conformed 8 packets, 1506 bytes; actions:
   transmit
  exceeded 353 packets, 72352 bytes; actions:
   drop
  violated 0 packets, 0 bytes; actions:
   drop
  conformed 0 bps, exceed 0 bps, violate 0 bps

Class-map: class-default (match-any)
 124 packets, 10635 bytes
 5 minute offered rate 0 bps, drop rate 0 bps
 Match: any
R3#show access-lists 120
Extended IP access list 120
 10 permit udp any any eq snmptrap (361 matches)
```

Which action resolves intermittent connectivity observed with the SNMP trap packets?

- A. Decrease the committed burst Size of the mgmt class map
- B. Increase the CIR of the mgmt class map
- C. Add a new class map to match TCP traffic
- D. Add one new entry in the ACL 120 to permit the UDP port 161

Answer: B

**NEW QUESTION 359**

- (Exam Topic 1)

Refer to the exhibit.

```
snmp-server community ciscotest1
snmp-server host 192.168.1.128 ciscotest
snmp-sever enable traps bgp
```

Network operations cannot read or write any configuration on the device with this configuration from the operations subnet. Which two configurations fix the issue? (Choose two.)

- A. Configure SNMP rw permission in addition to community ciscotest.
- B. Modify access list 1 and allow operations subnet in the access list.
- C. Modify access list 1 and allow SNMP in the access list.
- D. Configure SNMP rw permission in addition to version 1.
- E. Configure SNMP rw permission in addition to community ciscotest 1.

**Answer:** BE

**NEW QUESTION 362**

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