



**Cisco**

## **Exam Questions 300-410**

Implementing Cisco Enterprise Advanced Routing and Services (ENARSI)

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### NEW QUESTION 1

- (Exam Topic 3)

A newly installed spoke router is configured for DMVPN with the `ip mtu 1400` command. Which configuration allows the spoke to use fragmentation with the maximum negotiated TCP MTU over GRE?

- A. `ip tcp adjust-mss 1360 crypto ipsec fragmentation after-encryption`
- B. `ip tcp adjust-mtu 1360 crypto ipsec fragmentation after-encryption`
- C. `ip tcp adjust-mss 1360 crypto ipsec fragmentation mtu-discovery`
- D. `ip tcp adjust-mtu 1360 crypto ipsec fragmentation mtu-discovery`

**Answer: A**

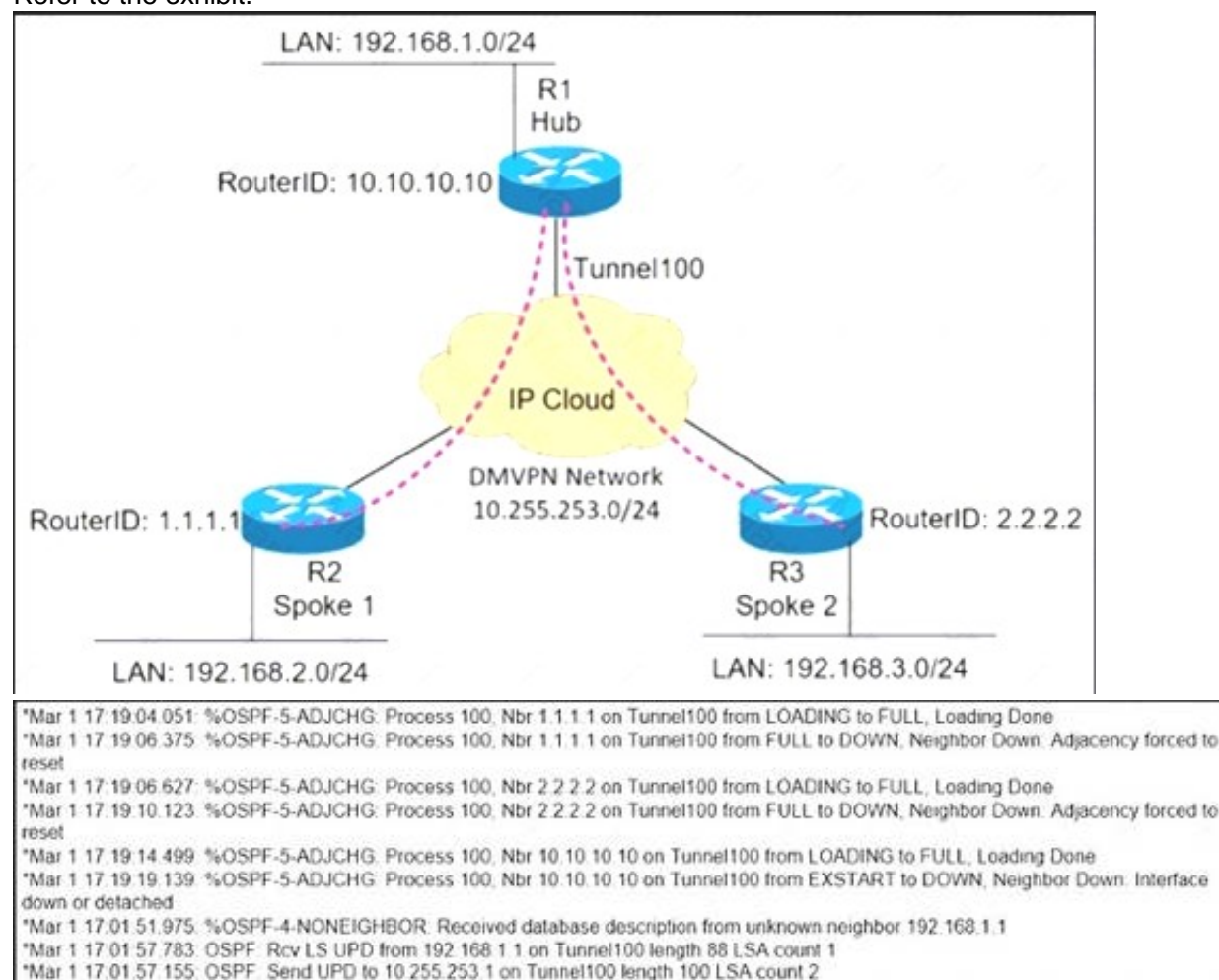
#### Explanation:

[https://www.cisco.com/c/en/us/support/docs/security/dynamic-multipoint-vpn-dmvpn/111976-dmvpn-troubleshoot](https://www.cisco.com/c/en/us/support/docs/security/dynamic-multipoint-vpn-dmvpn/111976-dmvpn-troubleshoot.html)

### NEW QUESTION 2

- (Exam Topic 3)

Refer to the exhibit.



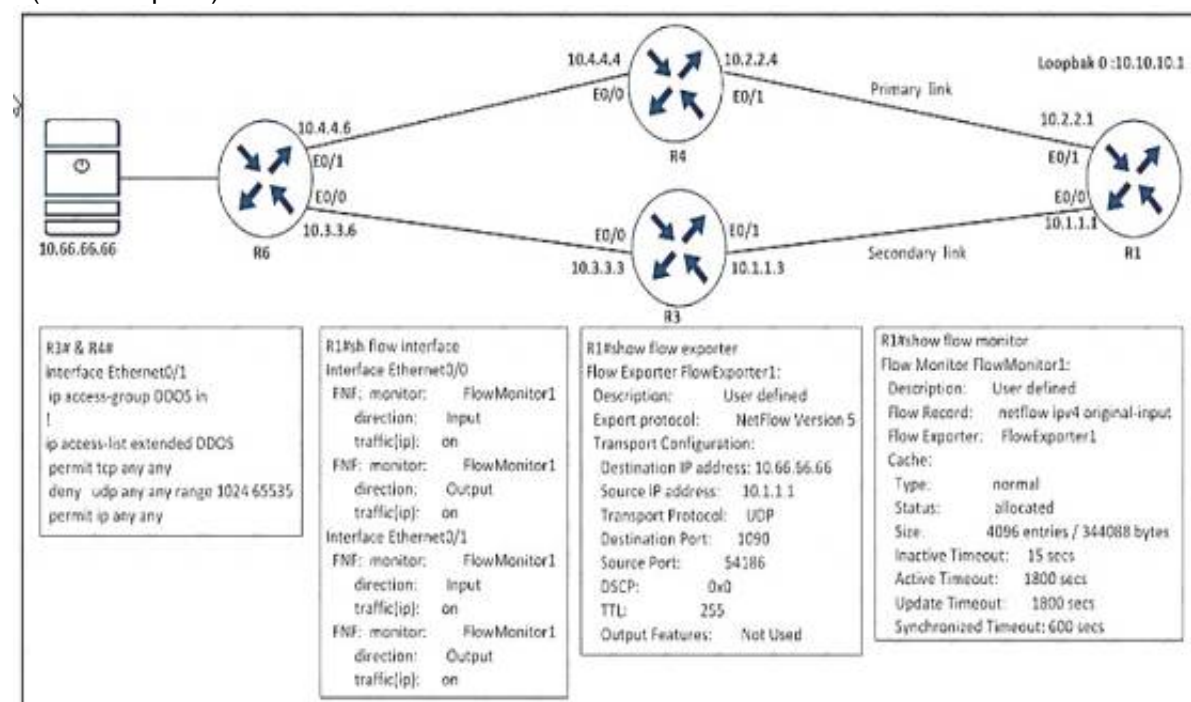
A network administrator sets up an OSPF routing protocol for a DMVPN network on the hub router. Which configuration required to establish a DMVPN tunnel with multiple spokes?

- A. `ip ospf network point-to-multipoint` on both spoke routers
- B. `ip ospf network point-to-point` on the hub router
- C. `ip ospf network point-to-multipoint` on One spoke router
- D. `ip ospf network point-to-point` on both spoke routers

**Answer: A**

### NEW QUESTION 3

- (Exam Topic 3)



Refer to the exhibit An engineer configured NetFlow but cannot receive the flows from R1 Which two configurations resolve the issue? (Choose two )

A)

```
R1(config)#flow exporter FlowExporter1
R1(config-flow-exporter)#destination 10.66.60.66
```

B)

```
R4(config)#ip access-list extended DDOS
R4(config-ext-nacl)#5 permit udp any host 10.66.66.66 eq 1090
```

C)

```
R3(config)#flow exporter FlowExporter1
R3(config-flow-exporter)#destination 10.66.66.66
```

D)

```
R3(config)#ip access-list extended DDOS
R3(config-ext-nacl)#5 permit udp any host 10.66.66.66 eq 1090
```

E)

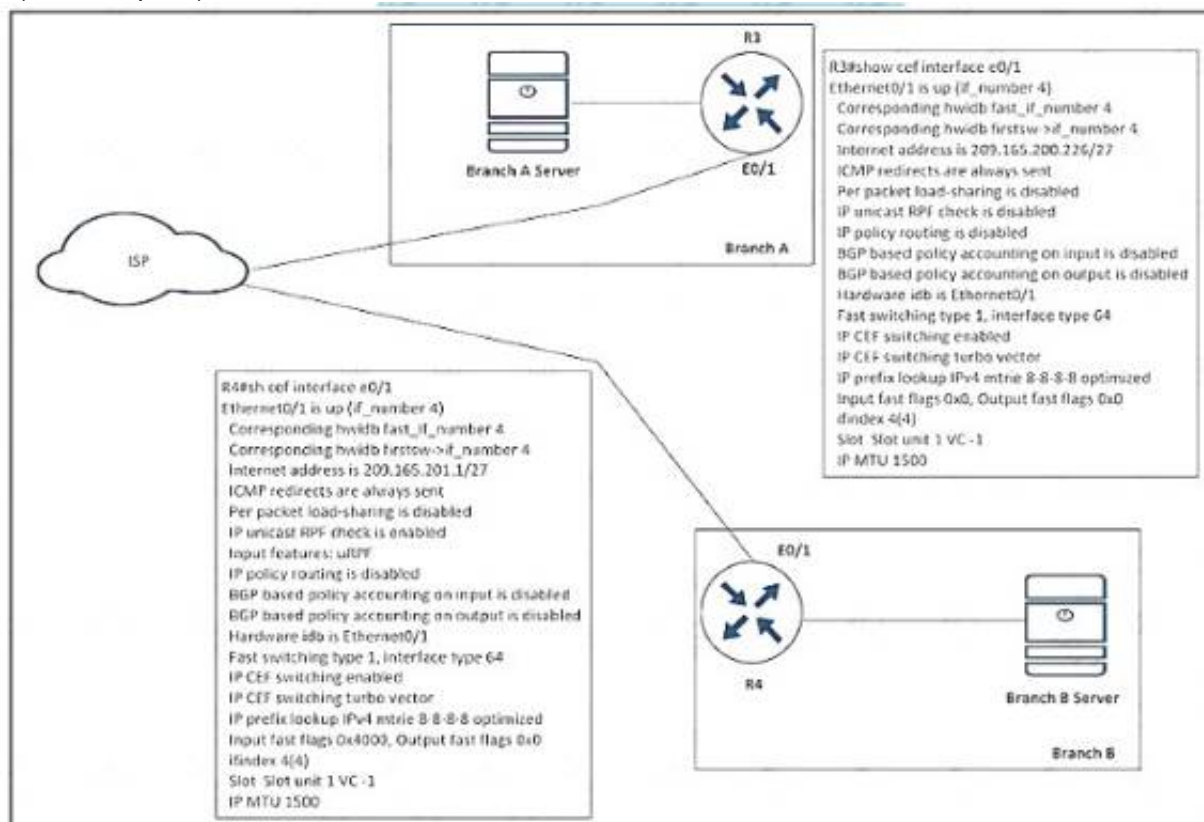
```
R4(config)#flow exporter FlowExporter1
R4(config-flow-exporter)#destination 10.66.66.66
```

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

**Answer: BE**

#### NEW QUESTION 4

- (Exam Topic 3)



Refer to the exhibit.

A shoe retail company implemented the uRPF solution for an antispoofing attack. A network engineer received the call that the branch A server is under an IP spoofing attack. Which configuration must be implemented to resolve the attack?

A)

```
R4
interface ethernet0/1
ip unicast RPF check reachable-via any allow-default allow-self-ping
```

B)

```
R4
interface ethernet0/1
ip verify unicast source reachable-via any allow-default allow-self-ping
```

C)

```
R3
interface ethernet0/1
ip verify unicast source reachable-via any allow-default allow-self-ping
```

D)

```
R3
interface ethernet0/1
ip unicast RPF check reachable-via any allow-default allow-self-ping
```



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

**Answer: C**

#### NEW QUESTION 5

- (Exam Topic 3)

A network administrator cannot connect to a device via SSH. The line vty configuration is as follows:

```
line vty 0 4
 location S421T50E27F86
 session-timeout 10
 transport preferred ssh
 transport input all
 transport output telnet ssh
 stopbits 1
```

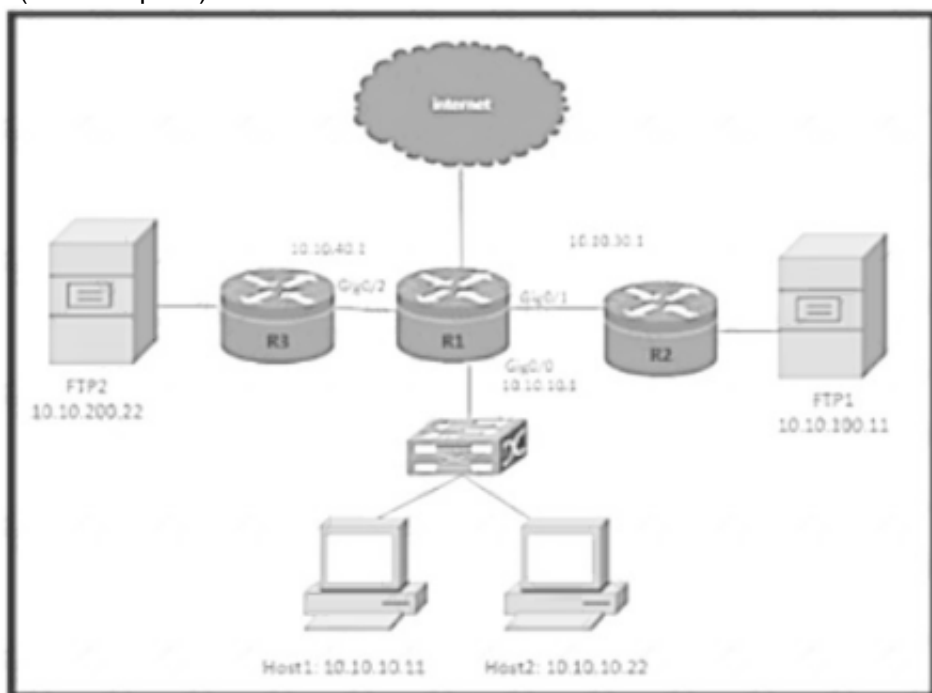
Which action resolves this issue?

- A. Increase the session timeout
- B. Change the stopbits to 10.
- C. Configure the transport input SSH
- D. initialize the SSH key

**Answer: D**

#### NEW QUESTION 6

- (Exam Topic 3)



Refer to the exhibit. The R1 routing table has the prefixes for the FTP1 and FTP2 file servers. A network engineer must configure the R1 with these requirements:

- > Host1 must use the FTP1 fileserver.
- > Host2 must use the FTP2 fileserver.

Which configuration meets the requirement on R1?

A)

```
ip access-list extended FTP1_R1
 permit ip host 10.10.10.11 host 10.10.100.11
ip access-list extended FTP2_R1
 permit ip host 10.10.10.22 host 10.10.200.22
!
route-map PBR_FTP permit 10
 match ip address FTP1_R1
 set ip next-hop 10.10.40.1
route-map PBR_FTP permit 20
 match ip address FTP2_R1
 set ip next-hop 10.10.30.1
!
ip local policy route-map PBR_FTP
```

B)

```
ip access-list extended FTP1_R1
 permit ip host 10.10.10.11 host 10.10.100.11
ip access-list extended FTP2_R1
 permit ip host 10.10.10.22 host 10.10.200.22
!
route-map PBR_FTP permit 10
 match ip address FTP1_R1
 set ip next-hop 10.10.30.1
!
route-map PBR_FTP permit 20
 match ip address FTP2_R1
 set ip next-hop 10.10.40.1
!
ip local policy route-map PBR_FTP
```

C)

```
ip access-list extended FTP1_R1
 permit ip host 10.10.10.11 host 10.10.100.11
ip access-list extended FTP2_R1
 permit ip host 10.10.10.22 host 10.10.200.22
!
route-map PBR_FTP permit 10
 match ip address FTP1_R1
 set ip next-hop 10.10.30.1
!
route-map PBR_FTP permit 20
 match ip address FTP2_R1
 set ip next-hop 10.10.40.1
!
interface GigabitEthernet 0/0
 ip policy route-map PBR_FTP
```

D)

```
ip access-list extended FTP1_R1
 permit ip host 10.10.10.11 any
ip access-list extended FTP2_R1
 permit ip host 10.10.10.22 any
route-map PBR_FTP permit 10
 match ip address FTP1_R1
 set ip next-hop 10.10.30.1
!
route-map PBR_FTP permit 20
 match ip address FTP2_R1
 set ip next-hop 10.10.40.1
!
interface GigabitEthernet 0/0
 ip policy route-map PBR_FTP
```

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

**Answer:** C

#### NEW QUESTION 7

- (Exam Topic 3)

What must be configured by the network engineer to circumvent AS\_PATH prevention mechanism in IP/VPN Hub and Spoke deployment scenarios?

- A. Use allows in and as-override at all Pes.
- B. Use allowas in and as-override at the PE-Hub.
- C. Use Allowas-in the PE\_Hub
- D. Use as-override at the PE\_Hub

**Answer:** D

#### NEW QUESTION 8

- (Exam Topic 3)

Which technique removes the outermost label of an MPLS-tagged packet before the packet is forwarded to an adjacent LER?

- A. label swap
- B. explicit-null
- C. label imposition
- D. PHP

**Answer:** D

#### NEW QUESTION 9

- (Exam Topic 3)

Refer to the exhibit.

```
R1#
router ospf 1
 redistribute rip subnets
 network 131.108.1.0 0.0.0.255 area 2
 network 131.108.2.0 0.0.0.255 area 2
 distribute-list 1 out
 !
 access-list 1 permit 132.108.4.0 0.0.0.255
```

The R1 OSPF neighbor is not receiving type 5 external LSAs for 132.108.2.0/24 and 132.108.3.0/24 networks. Which configuration command resolves the issue?

- A. access-list 1 permit 132.108.0.0 0.0.1.255
- B. access-list 1 permit 132.108.0.0 0.0.3.255
- C. access-list 1 permit 132.108.2.0 0.0.0.255
- D. access-list 1 permit 132.108.4.0 0.0.3.255

**Answer: B**

#### NEW QUESTION 10

- (Exam Topic 3)

What is a characteristic of Layer 3 MPLS VPNs?

- A. LSP signaling requires the use of unnumbered IP links for traffic engineering.
- B. Traffic engineering supports multiple IGP instances
- C. Traffic engineering capabilities provide QoS and SLAs.
- D. Authentication is performed by using digital certificates or preshared keys.

**Answer: C**

#### Explanation:

Reference:

[https://www.cisco.com/c/en/us/td/docs/ios-xml/ios/mp\\_te\\_diffserv/configuration/15-mt/mp-te-diffserv-15-mt-bo](https://www.cisco.com/c/en/us/td/docs/ios-xml/ios/mp_te_diffserv/configuration/15-mt/mp-te-diffserv-15-mt-bo)

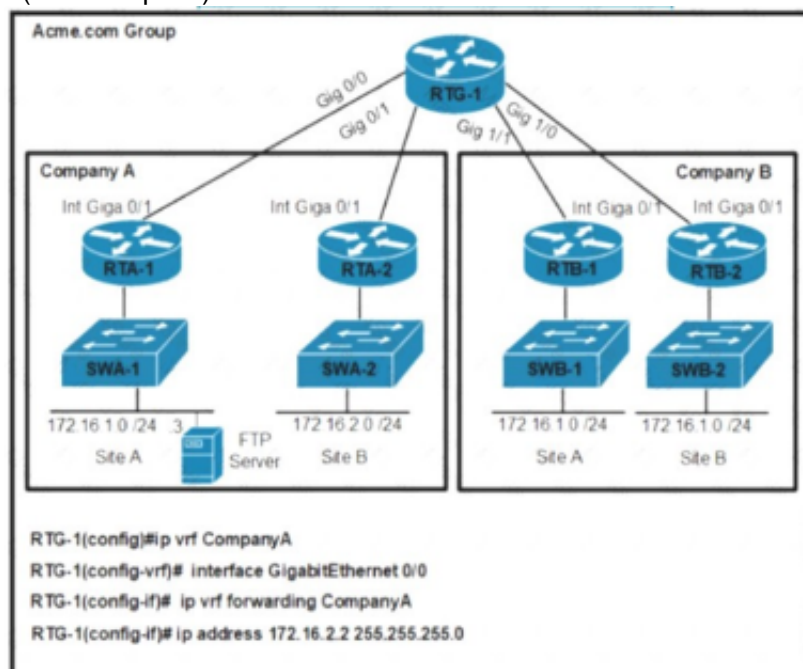
MPLS traffic engineering supports only a single IGP process/instance

The MPLS traffic engineering feature does not support routing and signaling of LSPs over unnumbered IP links.

Reference: [https://www.cisco.com/c/en/us/td/docs/ios-xml/ios/mp\\_te\\_path\\_setup/configuration/xs-3s/mp-te-path-setup-xe-3s-book/mp-te-enhance-xe.html](https://www.cisco.com/c/en/us/td/docs/ios-xml/ios/mp_te_path_setup/configuration/xs-3s/mp-te-path-setup-xe-3s-book/mp-te-enhance-xe.html)

#### NEW QUESTION 10

- (Exam Topic 3)



Refer to the exhibit. An engineer must configure a per VRF for TACACS+ for company A. Which configuration on RTG-1 accomplishes the task?

- ☐ aaa new-model  
aaa group server tacacs+ Tacacscluster  
server-private 172.16.1.1 port 49 key routing  
ip tacacs source-interface GigabitEthernet 0/0  
ip vrf forwarding CompanyA
- ☐ aaa new-model  
aaa group server tacacs+ Tacacscluster  
server-private 172.16.1.3 port 49 key routing  
ip tacacs source-interface GigabitEthernet 0/1  
ip vrf forwarding CompanyA
- ☐ aaa new-model  
aaa group server tacacs+ Tacacscluster  
server-private 172.16.1.1 port 49 key routing  
ip tacacs source-interface GigabitEthernet 0/1  
ip vrf CompanyA
- ☐ aaa new-model  
aaa group server tacacs+ Tacacscluster  
server-private 172.16.1.3 port 49 key routing  
ip tacacs source-interface GigabitEthernet 0/0  
ip vrf CompanyA

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

Answer: D

#### NEW QUESTION 14

- (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 18

- (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?

```
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
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
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
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)

The network administrator must implement IPv6 in the network to allow only devices that not only have registered IP addresses but are also connecting from assigned locations. Which security feature must be implemented?

- A. IPv6 Snooping
- B. IPv6 Destination Guard
- C. IPv6 Prefix Guard
- D. IPv6 Router Advertisement Guard

Answer: A

## NEW QUESTION 21

- (Exam Topic 3)

```

R4#show ip route
Gateway of last resort is not set

  172.16.0.0/16 is variably subnetted, 8 subnets, 3 masks
  C    172.16.2.0/30 is directly connected, GigabitEthernet0/1
  L    172.16.2.2/32 is directly connected, GigabitEthernet0/1
  C    172.16.2.16/28 is directly connected, Loopback1
  L    172.16.2.17/32 is directly connected, Loopback1
  C    172.16.2.32/28 is directly connected, Loopback2
  L    172.16.2.33/32 is directly connected, Loopback2
  S    172.16.2.48/28 [1/0] via 172.16.2.34
  D    172.16.250.0/30 [90/3072] via 172.16.2.1, 1d08h, GigabitEthernet0/1

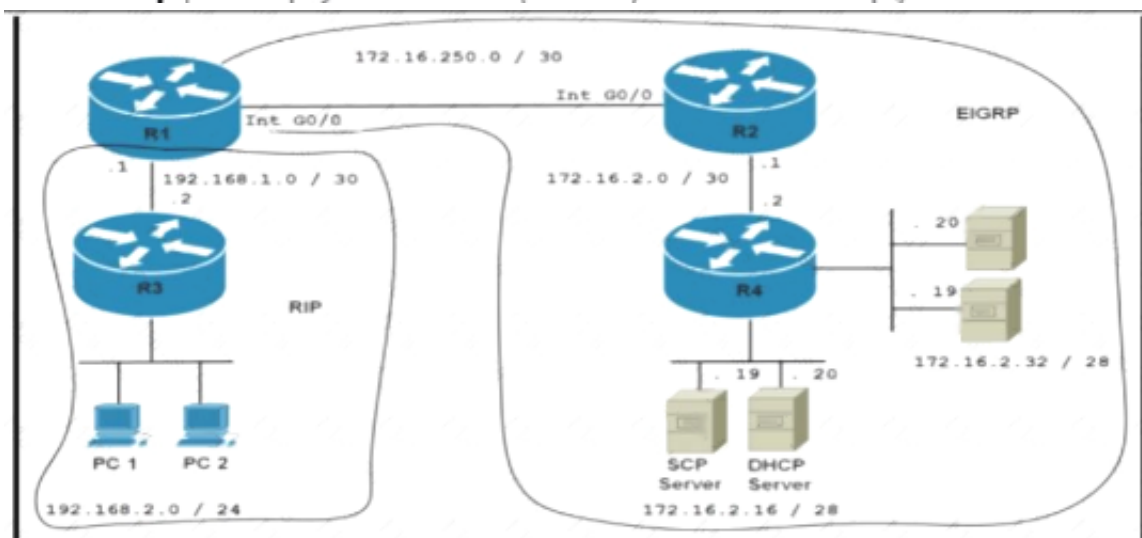
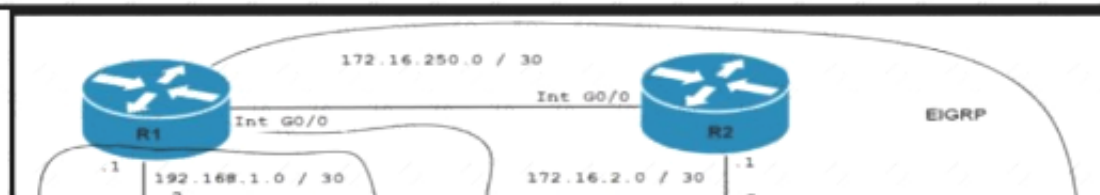
R3#sho ip route
Gateway of last resort is not set

R    172.16.0.0/16 [120/10] via 192.168.1.1, 00:00:03, GigabitEthernet0/1
  C    192.168.1.0/24 is variably subnetted, 2 subnets, 2 masks
  L    192.168.1.0/30 is directly connected, GigabitEthernet0/1
  L    192.168.1.2/32 is directly connected, GigabitEthernet0/1
  C    192.168.2.0/24 is variably subnetted, 2 subnets, 2 masks
  L    192.168.2.0/24 is directly connected, Loopback2
  L    192.168.2.33/32 is directly connected, Loopback2
  C    192.168.3.0/24 is variably subnetted, 2 subnets, 2 masks
  L    192.168.3.0/24 is directly connected, Loopback1
  L    192.168.3.17/32 is directly connected, Loopback1

R1#sho running-config | begin router eigrp
router eigrp 100
 network 172.16.250.0 0.0.0.3
 redistribute rip
!
router rip
 redistribute eigrp 100 metric 10
 network 192.168.1.0
!
ip forward-protocol nd
!
route-map REDIST permit 10
 match ip address 15
!
route-map CCNP deny 10
 match route-type external
!
route-map CCNP permit 20
!
access-list 15 permit 192.168.0.0 0.0.0.255

R3#traceroute 172.16.2.33
Type escape sequence to abort.
Tracing the route to 172.16.2.33
VRF info: (vrf in name/id, vrf out name/id)
 1 192.168.1.1 27 msec 31 msec 16 msec
 2 * * *
 3 * * *
 4 * *
R3#

```



Refer to the exhibit Users from the 192 168.2.0/24 network cannot connect to the 172.16 2 32/28 network Which configuration resolves the issue'?

A)

R4(config)#ip route 0.0.0.0 0.0.0.0 172.16.2.1

B)

```

R1(config)#route-map REDIST permit 10
R1(config-route-map)#match ip address 15
R1(config-route-map)# set metric 1000 10 255 1 1500
R1(config-route-map)#exit
R1(config)# access-list 15 permit 192.168.2.0 0.0.255.255

```

C)

```

R1(config-router)#router eigrp 100
R1(config-router)#redistribute rip
R1(config-router)#default-metric 10000 100 255 100 1500

```

D)

```

R1(config)#router eigrp 100
R1(config-router)#network 192.168.0.0

```

- A. Option A
- B. Option B

- C. Option C
- D. Option D

**Answer:** A

#### NEW QUESTION 25

- (Exam Topic 3)

Refer to the exhibit.

A network administrator is troubleshooting OSPF adjacency issue by going through the console logs in the router, but due to an overwhelming log message stream it is impossible to capture the problem. Which two commands reduce console log messages to relevant OSPF neighbor problem details so that the issue can be resolved? (Choose two)

- A. debug condition interface
- B. debug condition ip
- C. debug condition ospf neighbor
- D. debug condition session-id ADJCHG
- E. debug condition all

**Answer:** AD

#### NEW QUESTION 28

- (Exam Topic 3)

```
changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface Ethernet0/2,
changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface Ethernet0/3,
changed state to up
%OSPF-5-ADJCHG: Process 1, Nbr 10.1.1.2 on Ethernet0/0 from
LOADING to FULL, Loading Done
%BGP-3-NOTIFICATION: received from neighbor 192.168.200.1
active 6/7 (Connection Collision Resolution) 0 bytes
%BGP-5-NBR_RESET: Neighbor 192.168.200.1 active reset (BGP
Notification received)
%BGP-5-ADJCHANGE: neighbor 192.168.200.1 active Down BGP
Notification received
%BGP_SESSION-5-ADJCHANGE: neighbor 192.168.200.1 IPv4 Unicast
topology base removed from session BGP Notification received
```

Refer to the exhibit. An engineer noticed that the router log messages do not have any information about when the event occurred. Which action should the engineer take when enabling service time stamps to improve the logging functionality at a granular level?

- A. Configure the debug uptime option
- B. Configure the msec option
- C. Configure the timezone option
- D. Configure the tog uptime option

**Answer:** D

#### NEW QUESTION 31

- (Exam Topic 3)

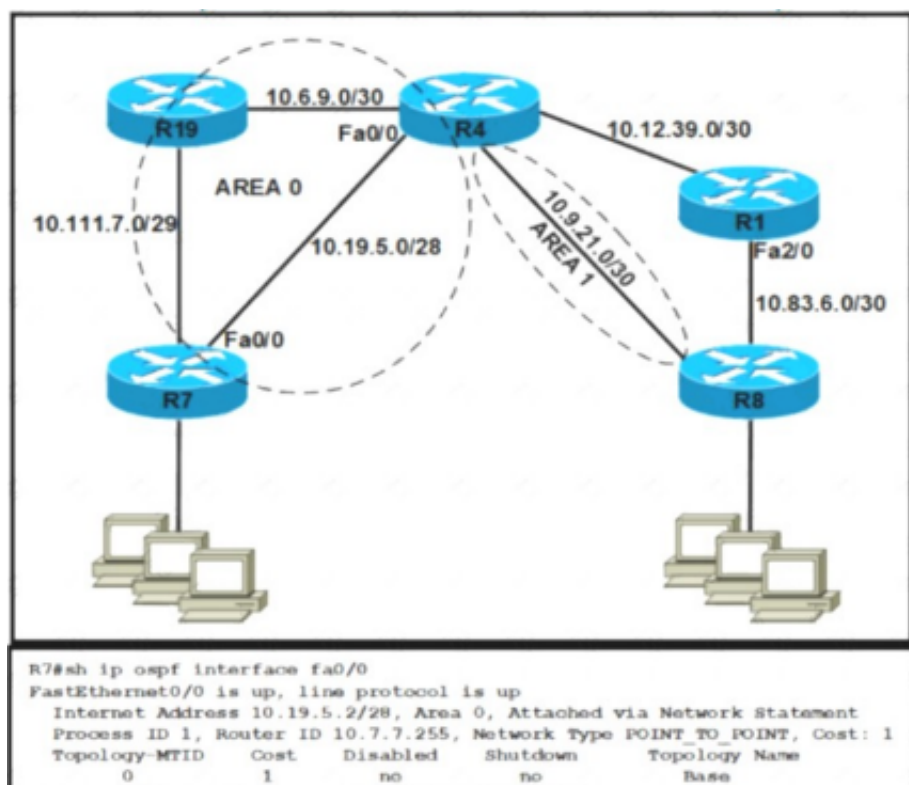
What is an MPLS LDP targeted session?

- A. session between neighbors that are connected no more than one hop away
- B. LDP session established between LSRs by exchanging TCP hello packets
- C. label distribution session between non-directly connected neighbors
- D. LDP session established by exchanging multicast hello packets

**Answer:** C

#### NEW QUESTION 33

- (Exam Topic 3)



Refer to the exhibit. Router R4 is configured correctly with default OSPF values. A network engineer configured R7 for OSPF. R7 must not be elected as a DR for the segment between R4-R7. The adjacency between R4 and R7 failed to form. Which configuration resolves the issue?

- ☐ R7(config)#interface fa0/0  
R7(config-if)#ip ospf priority 255  
R7(config-if)#ip ospf hello-interval 10  
R7(config-if)#ip ospf dead-interval 30  
R7(config-if)#ip ospf network broadcast
- ☐ R7(config)#interface fa0/0  
R7(config-if)#ip ospf priority 0  
R7(config-if)#ip ospf hello-interval 10  
R7(config-if)#ip ospf dead-interval 30  
R7(config-if)#ip ospf network non-broadcast
- ☐ R7(config)#interface fa0/0  
R7(config-if)#ip ospf priority 0  
R7(config-if)#ip ospf hello-interval 10  
R7(config-if)#ip ospf dead-interval 40  
R7(config-if)#ip ospf network broadcast
- ☐ R7(config)#interface fa0/0  
R7(config-if)#ip ospf priority 255  
R7(config-if)#ip ospf hello-interval 10  
R7(config-if)#ip ospf dead-interval 40  
R7(config-if)#ip ospf network non-broadcast

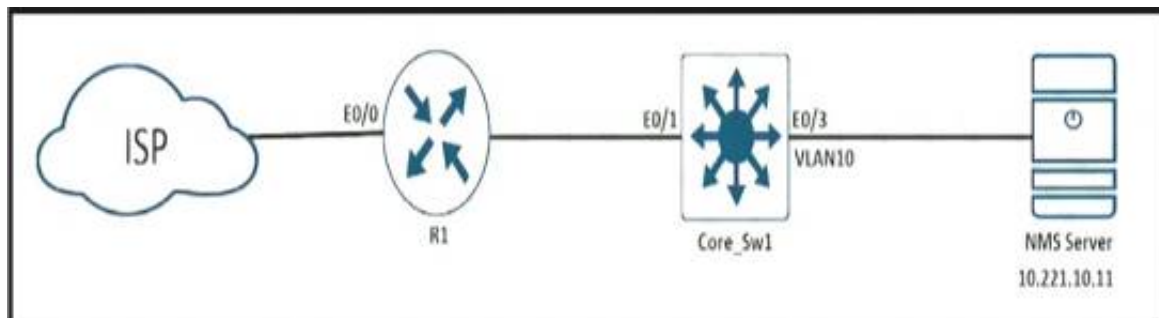
- A. Option A
- B. Option B
- C. Option C
- D. Option D

**Answer: C**

#### NEW QUESTION 36

- (Exam Topic 3)

Refer to the exhibit.



During ISP router maintenance, the network produced many alerts because of the flapping interface. Which configuration on R1 resolves the issue?

- A. no snmp trap link-status
- B. snmp trap link-status down
- C. snmp trap ip verify drop-rate
- D. ip verify drop-rate notify hold-down 60

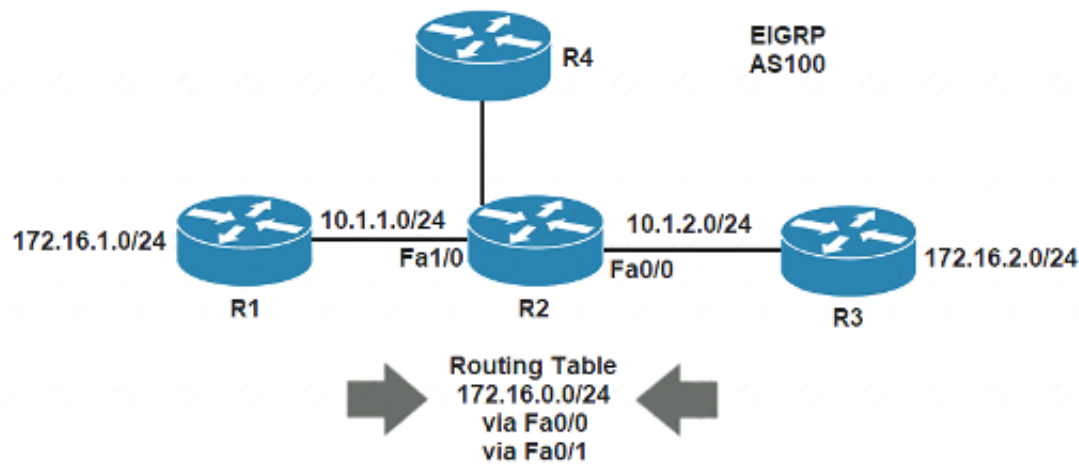
**Answer: D**

#### NEW QUESTION 37

- (Exam Topic 3)

Refer to the exhibit.





R4 is experiencing packet drop when trying to reach 172.16.2.7 behind R2. Which action resolves the issue?

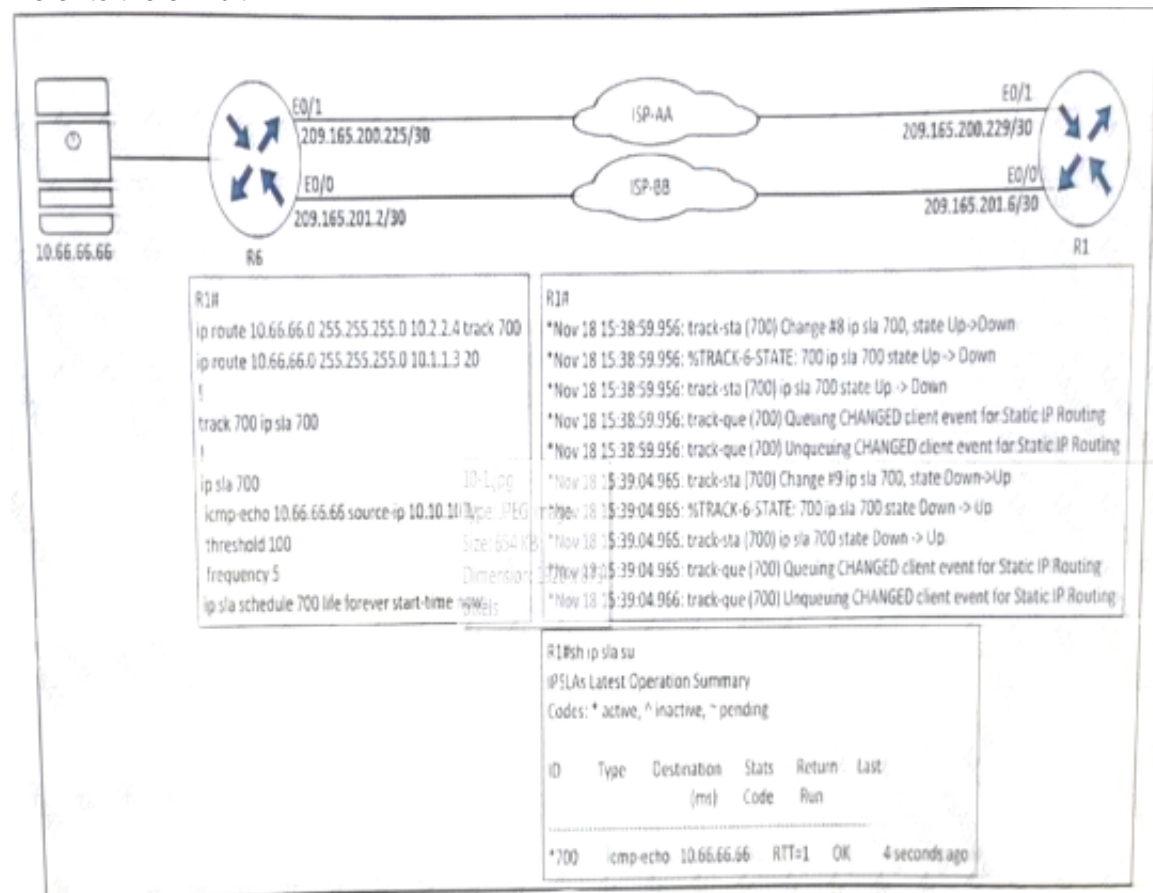
- A. Insert a /16 floating static route on R2 toward R3 with metric 254
- B. Insert a /24 floating static route on R2 toward R3 with metric 254
- C. Enable auto summarization on all three routers R1, R2, and R3
- D. Disable auto summarization on R2

**Answer: D**

#### NEW QUESTION 42

- (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 waiting 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

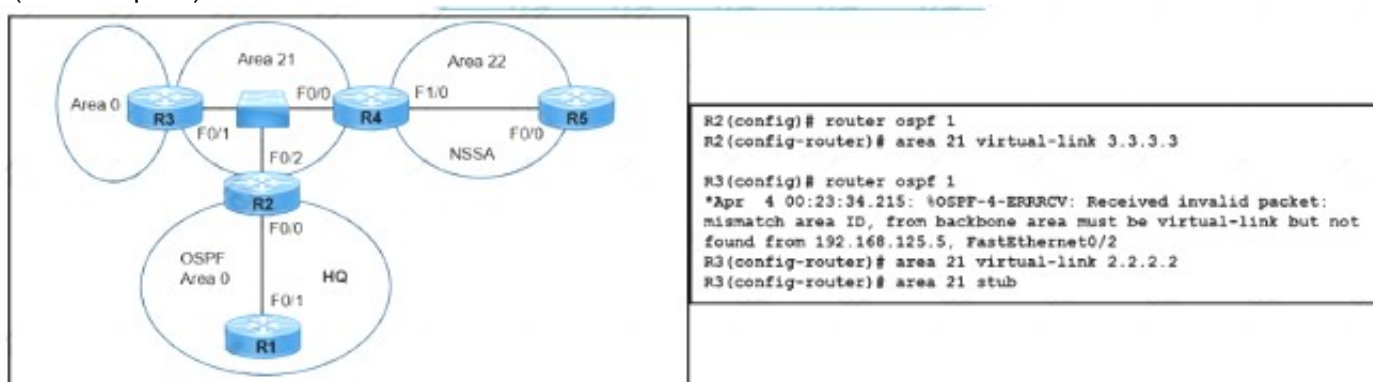
**Answer: C**

#### 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 47

- (Exam Topic 3)



Refer to the exhibit. A network engineer is troubleshooting a failed link between R2 and R3 No traffic loss is reported from router R5 to HQ Which command fixes



the separated backbone?

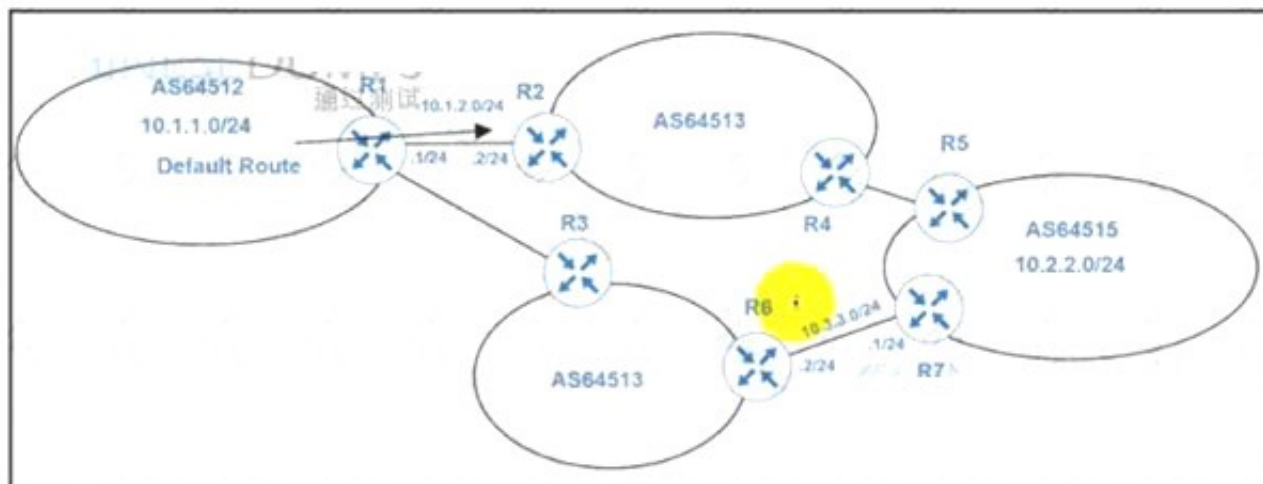
- A. R2(config-router)#no area 21 stub
- B. R2(config\_router)#area 21 virtual-link 192.168.125.5
- C. R3(config-router)#area 21 virtual-link 192.168.125.5
- D. R3(config-router)#no area 21 stub

**Answer: D**

#### NEW QUESTION 49

- (Exam Topic 3)

Refer to the exhibit.



An engineer must configure PBR on R1 to reach to 10.2.2.0/24 via R3 AS64513 as the primary path and a backup route through default route via R2 AS64513. All BGP routes are in the routing table of R1, but a static default route overrides BGP routes. Which PBR configuration achieves the objective?

- ☒ access-list 100 permit ip 10.1.1.0 0.0.0.255 10.2.2.0 0.0.0.255  
 !  
 route-map PBR permit 10  
 match ip address 100  
 set ip next-hop 10.3.3.1
- ☐ access-list 100 permit ip 10.1.1.0 0.0.0.255 10.2.2.0 0.0.0.255  
 !  
 route-map PBR permit 10  
 match ip address 100  
 set ip next-hop recursive 10.3.3.1
- ☐ access-list 100 permit ip 10.1.1.0 255.255.255.0 10.2.2.0 255.255.255.0  
 !  
 route-map PBR permit 10  
 match ip address 100  
 set ip next-hop recursive 10.3.3.1
- ☐ access-list 100 permit ip 10.1.1.0 255.255.255.0 10.2.2.0 255.255.255.0  
 !  
 route-map PBR permit 10  
 match ip address 100  
 set ip next-hop 10.3.3.1

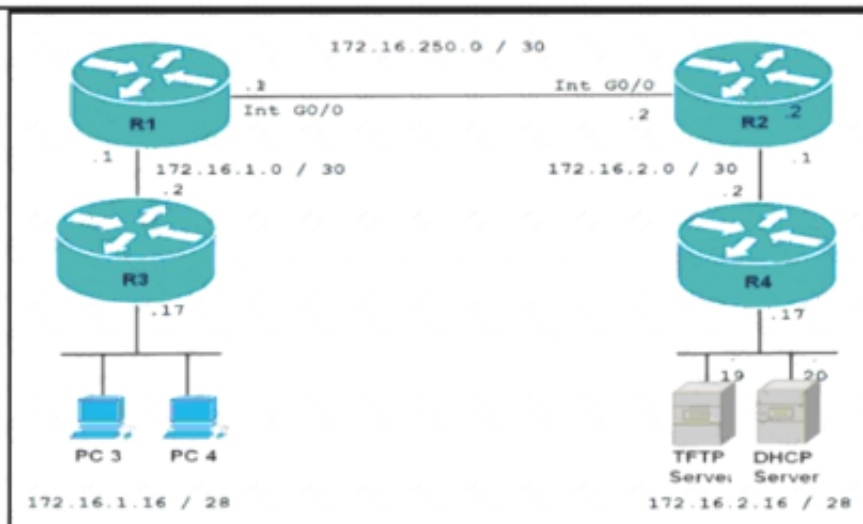
- A. Option A
- B. Option B
- C. Option C
- D. Option D

**Answer: B**

#### NEW QUESTION 50

- (Exam Topic 3)

```
R3#copy tftp flash:
Address or name of remote host [172.16.2.19]?
Source filename [c2600-i-mz.121.T.bin]? c2600-i-mz.121-1.T.bin
Destination filename [c2600-i-mz.121-1.T.bin]?
Loading c2600-i-mz.121-1.T.bin from 172.16.2.19(via GigabitEthernet0/0): !
%Error copying tftp://172.16.2.19/c2600-i-mz.121-1.T.bin (Not enough space
on device)
R3#
```



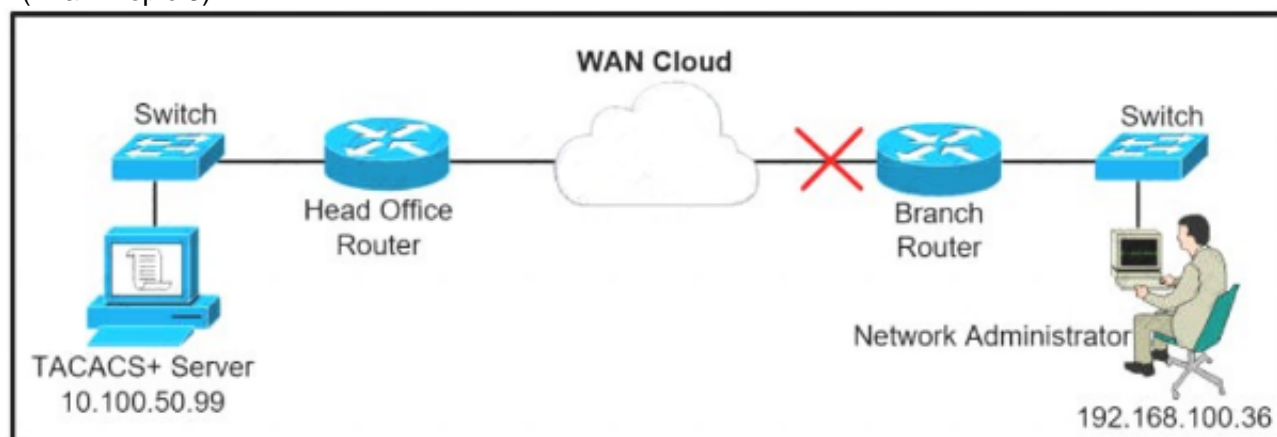
Refer to the exhibit. The engineer is getting an error when trying to transfer a new IOS file to the router. Which action resolves the issue?

- A. Delete some files on the router flash memory.
- B. Delete some files on the router NVRAM.
- C. Remove any access-list filtering the TFTP file transfer.
- D. Split the file into parts to transfer them one by one.

**Answer:** A

#### NEW QUESTION 53

- (Exam Topic 3)



A network administrator is trying to access a branch router using TACACS+ username and password credentials, but the administrator cannot log in to the router because the WAN connectivity is down. The branch router has following AAA configuration:

```
aaa new-model
aaa authorization commands 15 default group tacacs+
aaa accounting commands 1 default stop-only group tacacs+
aaa accounting commands 15 default stop-only group tacacs+
tacacs-server host 10.100.50.99
tacacs-server key Cisco123
```

Which command will resolve this problem when WAN connectivity is down?

- A. aaa authentication login default group tacacs+ local
- B. aaa authentication login default group tacacs+ enable
- C. aaa authentication login default group tacacs+ console
- D. aaa authentication login console group tacacs+ enable

**Answer:** A

#### Explanation:

With the "aaa authentication login default group tacacs+ local" command configured, when logging in, the password supplied will be attempted to be verified by the TACACS+ server before access is granted. If the server is unavailable/unreachable, then the switch will fall back to using the local authentication database.

#### NEW QUESTION 57

- (Exam Topic 3)

```

R1:
interface Loopback1
no ip address
ipv6 address 100A:0:100C::1/64
ipv6 enable
ipv6 ospf 10 area 0
!
interface Loopback4
no ip address
ipv6 address 400A:0:400C::1/64
ipv6 enable
ipv6 ospf 10 area 0
!
interface Serial1/0
no ip address
ipv6 address AB01:2011:7:100::/64 eui-64
ipv6 enable
ipv6 ospf network point-to-point
ipv6 ospf 10 area 0
ipv6 traffic-filter DENY_TELNET_Lo4 in
serial restart-delay 0
clock rate 64000
!
ipv6 router ospf 10
router-id 1.1.1.1
log-adjacency-changes
!
ipv6 access-list DENY_TELNET_Lo4
sequence 20 deny tcp host 100:ABC:2011:7 host 400A:0:400C::1 eq telnet permit ipv6 any any
end

R2:
interface Loopback0
no ip address
ipv6 address 1001:ABC:2011:7::1/64
ipv6 enable
ipv6 ospf 10 area 0
!
interface Serial1/0
no ip address
ipv6 address AB01:2011:7:100::/64 eui-64
ipv6 enable
ipv6 ospf network point-to-point
ipv6 ospf 10 area 0
serial restart-delay 0
!
ipv6 router ospf 10
router-id 2.2.2.2
log-adjacency-changes
!
end

```

```

R1:
interface Loopback1
no ip address
ipv6 address 100A:0:100C::1/64
ipv6 enable
ipv6 ospf 10 area 0
!
interface Loopback4
no ip address
ipv6 ospf 10 area 0
!
interface Serial1/0
no ip address
ipv6 address AB01:2011:7:100::/64 eui-64
ipv6 enable
ipv6 ospf network point-to-point
ipv6 ospf 10 area 0
ipv6 traffic-filter DENY_TELNET_Lo4 in
serial restart-delay 0
clock rate 64000
!
ipv6 router ospf 10
router-id 1.1.1.1
log-adjacency-changes
!
ipv6 access-list DENY_TELNET_Lo4
sequence 20 deny tcp host 100:ABC:2011:7 host 400A:0:400C::1 eq telnet permit ipv6 any any
end

R2:
interface Loopback0
no ip address
ipv6 address 1001:ABC:2011:7::1/64
ipv6 enable
ipv6 ospf 10 area 0
!
interface Serial1/0
no ip address
ipv6 ospf network point-to-point
ipv6 ospf 10 area 0
serial restart-delay 0
!
ipv6 router ospf 10
router-id 2.2.2.2
log-adjacency-changes
!
end

ipv6 access-list DENY_TELNET_Lo4
sequence 20 deny tcp host 100:ABC:2011:7 host 400A:0:400C::1 eq telnet permit ipv6 any any
end

```

Refer to the exhibit. An engineer implemented an access list on R1 to allow anyone to Telnet except R2 Loopback0 to R1 Loopback4. How must sequence 20 be replaced on the R1 access list to resolve the issue?

- A. sequence 20 permit tcp host 1001:ABC:2011:7::1 host 400A:0:400C::1 eq telnet
- B. sequence 20 deny tcp host 400A:0:400C::1 host 1001:ABC:2011:7::1 eq telnet
- C. sequence 20 deny tcp host 1001:ABC:2011:7::1 host 400A:0:400C::1 eq telnet
- D. sequence 20 permit tcp host 400A:0:400C::1 host 1001:ABC:2011:7::1 eq telnet

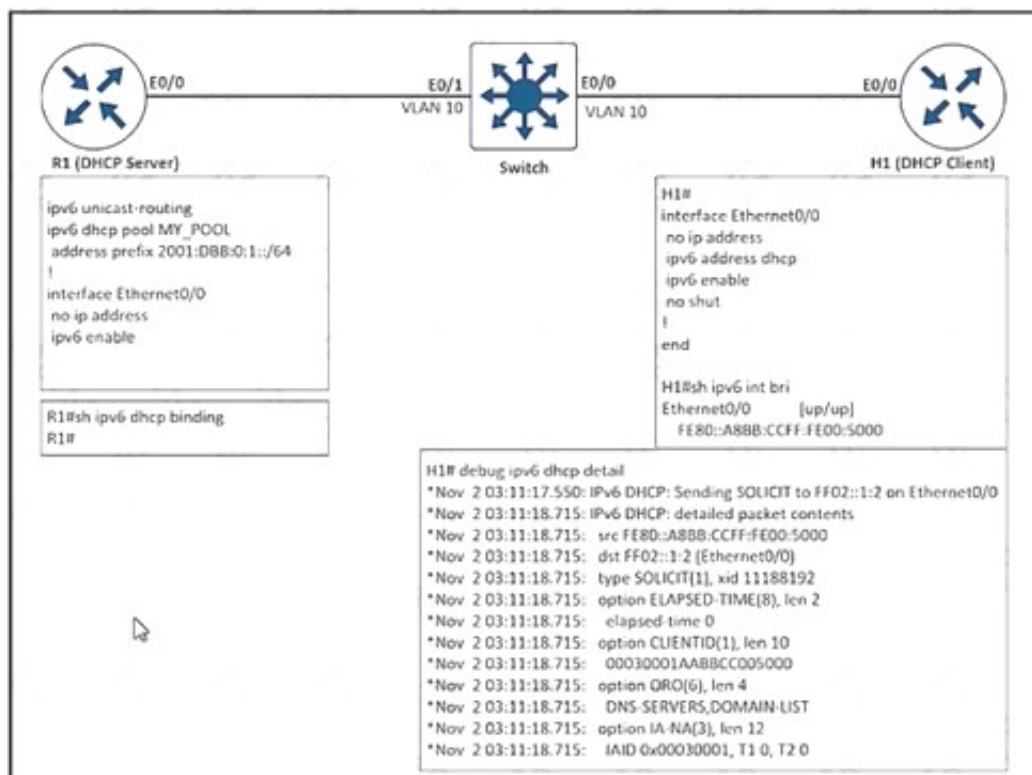
**Answer: C**

## NEW QUESTION 62

- (Exam Topic 3)

Refer to the exhibit.





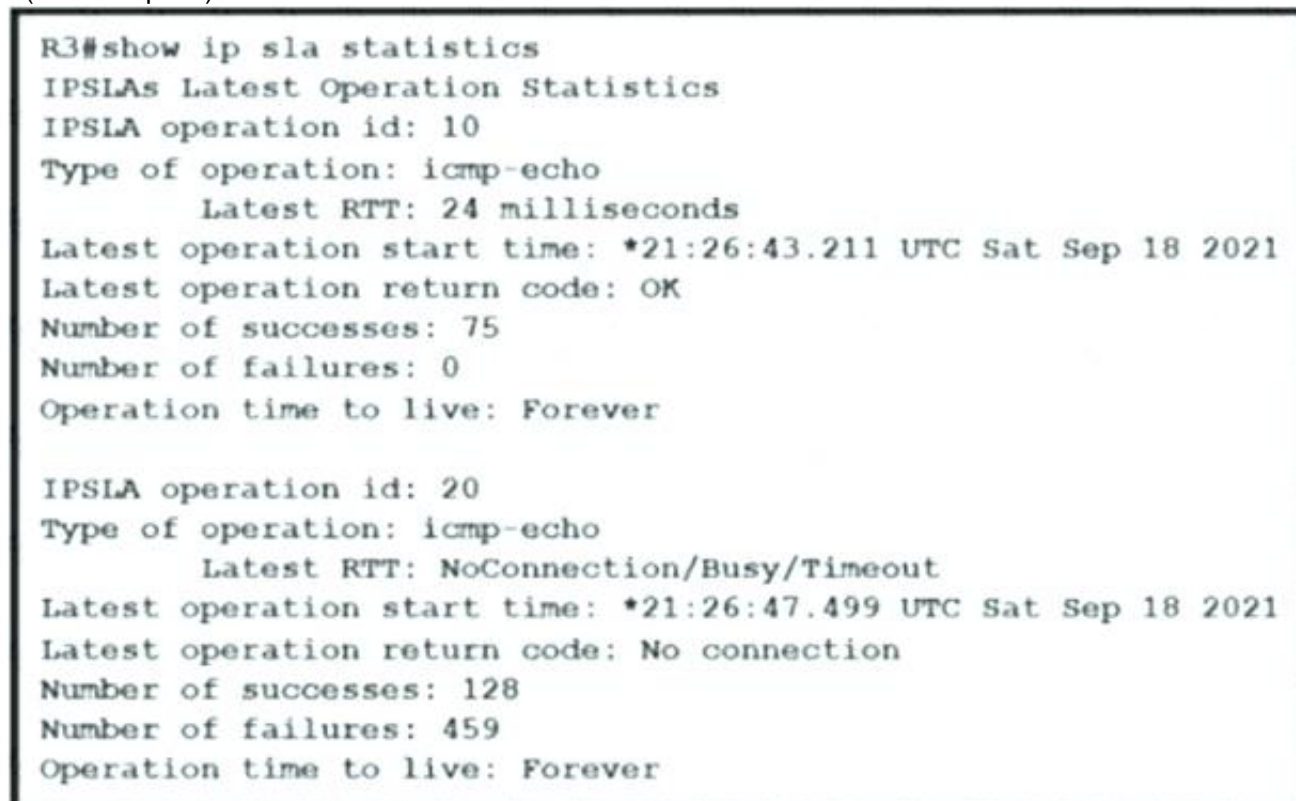
After the network administrator rebuilds the IPv6 DHCP server, clients are not getting the IPv6 address lease. Which action resolves the issue?

- A. Remove FE80 A8BB CCFF FE00 5000 assigned by the IPV6 DHCP server.
- B. Add Ipv6 dhcp sarver MY\_POOL under the interface ethernet 0/0 on H1.
- C. Add Ipv6 dhcp server MY\_POOL under the interface ethernet 0/0 on R1.
- D. Configure FF02::1:2 to discover al IPV6 OHCP cfcents

**Answer: C**

#### NEW QUESTION 63

- (Exam Topic 3)



Refer to me exhibit Traffic from R3 to the central site does not use alternate paths when R3 cannot reach 10 10 10 2 Traffic on R3 destined to R4 takes an alternate route via 10 10 10.6 when 10 10 10 4 is not accessible from R3 Which configuration switches traffic destined to 10 10 10 2 from R3 on the alternate path"

- A. R3(config)#ip route 192.168.10.1 255.255.255.255 10.10.10.2 track 20
- B. R2(config)#ip route 10.10 10 3 255 255.255 255 10.0.0.6
- C. R3(config)#track( 20 ip sla 20 reachability
- D. R6(config)#ip route 10.10.10 3 255.255.255.255 10.0.0.30

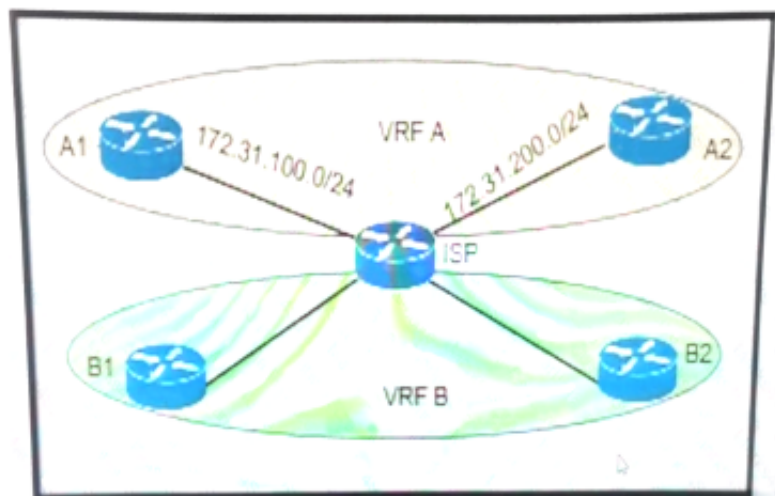
**Answer: A**

#### NEW QUESTION 67



- (Exam Topic 3)

Refer to the exhibit. The ISP router is fully configured for customer A and customer B using the VRF-Lite feature. What is the minimum configuration required for customer A to communicate between routers A1 and A2?



- A. A1interface fa0/0 description To->ISPip add 172.31.100.1 255.255.255.0no shut!router ospf 100net 172.31.100.1 0.0.0.255 area 0 A2interface fa0/0 description To->ISPip add 172.31.200.1 255.255.255.0no shut!router ospf 100net 172.31.200.1 0.0.0.255 area 0
- B. A1interface fa0/0 description To->ISP ip vrf forwarding Aip add 172.31.100.1 255.255.255.0no shut!router ospf 100net 172.31.100.1 0.0.0.255 area 0 A2interface fa0/0 description To->ISP ip vrf forwarding Aip add 172.31.200.1 255.255.255.0no shut!router ospf 100net 172.31.200.1 0.0.0.255 area 0
- C. A1interface fa0/0 description To->ISPip add 172.31.200.1 255.255.255.0no shut!router ospf 100net 172.31.200.1 0.0.0.255 area 0 A2interface fa0/0 description To->ISPip add 172.31.100.1 255.255.255.0no shut!router ospf 100net 172.31.100.1 0.0.0.255 area 0
- D. A1interface fa0/0 description To->ISP ip vrf forwarding Aip add 172.31.100.1 255.255.255.0no shut!router ospf 100 vrf A net 172.31.200.1 0.0.0.255 area 0 A2interface fa0/0 description To->ISP ip vrf forwarding Aip add 172.31.100.1 255.255.255.0no shut!router ospf 100 vrf A net 172.31.200.1 0.0.0.255 area 0

**Answer: C**

#### Explanation:

A1 and A2 routers do not know they belong to VRF A. The two interfaces of ISP (which are connected to A1 & A2) should be configured like this (we only show the configure of one interface):

ISP router:

interface g0/0

description ISP->To\_CustomerA ip vrf forwarding A

ip address 172.31.100.2 255.255.255.0

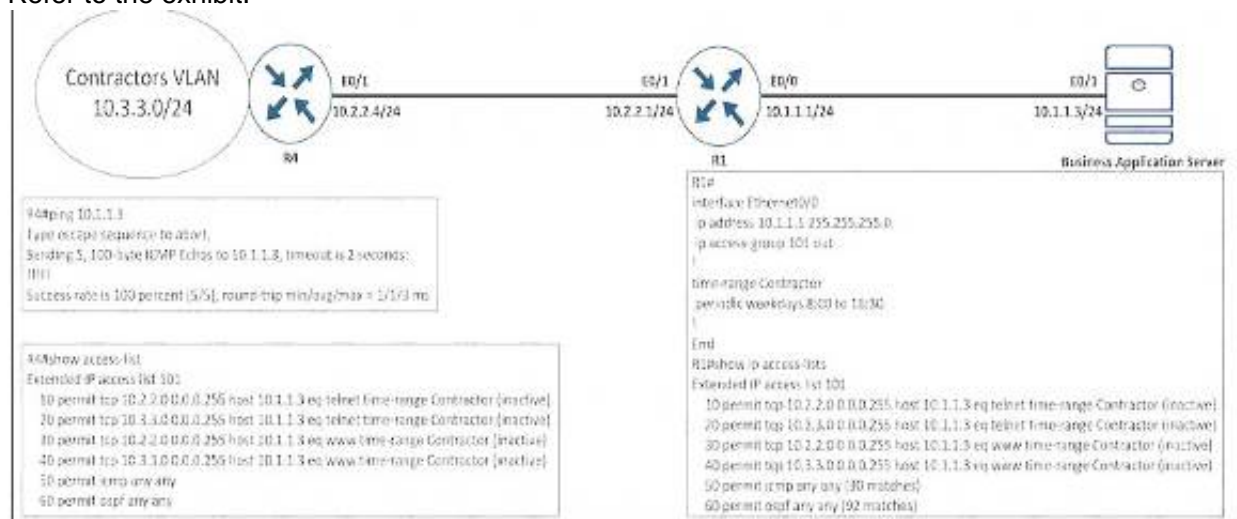
router ospf 100 vrf A

network 172.31.200.2 0.0.0.255 area 0

#### NEW QUESTION 72

- (Exam Topic 3)

Refer to the exhibit.



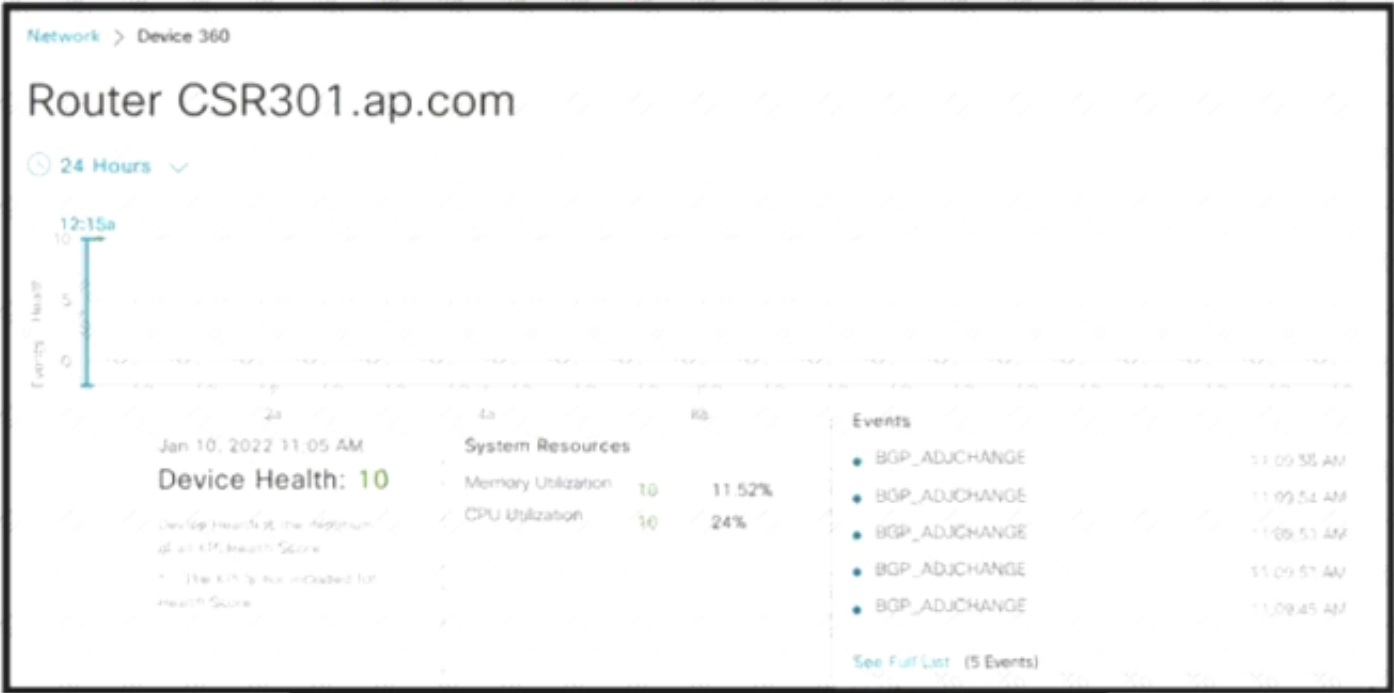
An engineer is troubleshooting failed access by contractors to the business application server via Telnet or HTTP during the weekend. Which configuration resolves the issue?

- A)  
**R1**  
**time-range Contractor**  
**no periodic weekdays 8:00 to 16:30**  
**periodic daily 8:00 to 16:30**
- B)  
**R4**  
**time-range Contractor**  
**no periodic weekdays 17:00 to 23:59**  
**periodic daily 8:00 to 16:30**
- C)  
**R4**  
**no access-list 101 permit tcp 10.3.3.0 0.0.0.255 host 10.1.1.3 eq telnet time-range Contractor**
- D)  
**R1**  
**no access-list 101 permit tcp 10.3.3.0 0.0.0.255 host 10.1.1.3 eq telnet time-range Contractor**

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

Answer: A

NEW QUESTION 74  
- (Exam Topic 3)



```
atomic-aggregate, best
Extended Community: RT:1:4099
rx pathid: 0, tx pathid: 0x0
Updated on Jul 28 2022 15:17:49 UTC

router#

router#sh ip bgp 10.140.217.0/24
% Network not in table
router#

router#sh ip bgp 10.140.217.0/24
BGP routing table entry for 10.140.217.0/24, version 685
Paths: (1 available, best #1, table default)
  Advertised to update-groups:
    5      11
  Refresh Epoch 1
  65396, (aggregated by 65396 10.140.210.2), imported path from
1:4099:10.140.217.0/24 (Guest_VN)

    10.140.212.5 from 10.140.212.5 (10.140.210.2)
      Origin IGP, metric 0, localpref 100, valid, external,
atomic-aggregate, best
Extended Community: RT:1:4099
rx pathid: 0, tx pathid: 0x0
Updated on Jul 31 2022 18:32:12 UTC
```

Refer to the exhibit. In Cuco DNA Center, a network engineer identifies that BGP-learned networks are repeatedly withdrawn from peers. Which configuration must the engineer apply to resolve the Issue?

- A)
- ```
router bgp 100
  bgp graceful-restart
```
- B)
- ```
router bgp 100
  bgp dampening
```
- C)
- ```
route-map Dampening permit 10
  set dampening 15 750 2000 60
router bgp 100
  neighbor 10.140.212.5 route-map Dampening in
```
- D)
- ```
route-map Dampening permit 10
  set dampening 15 750 2000 60
router bgp 100
  neighbor 10.140.212.5 route-map Dampening out
```

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

Answer: D

## NEW QUESTION 78

- (Exam Topic 3)

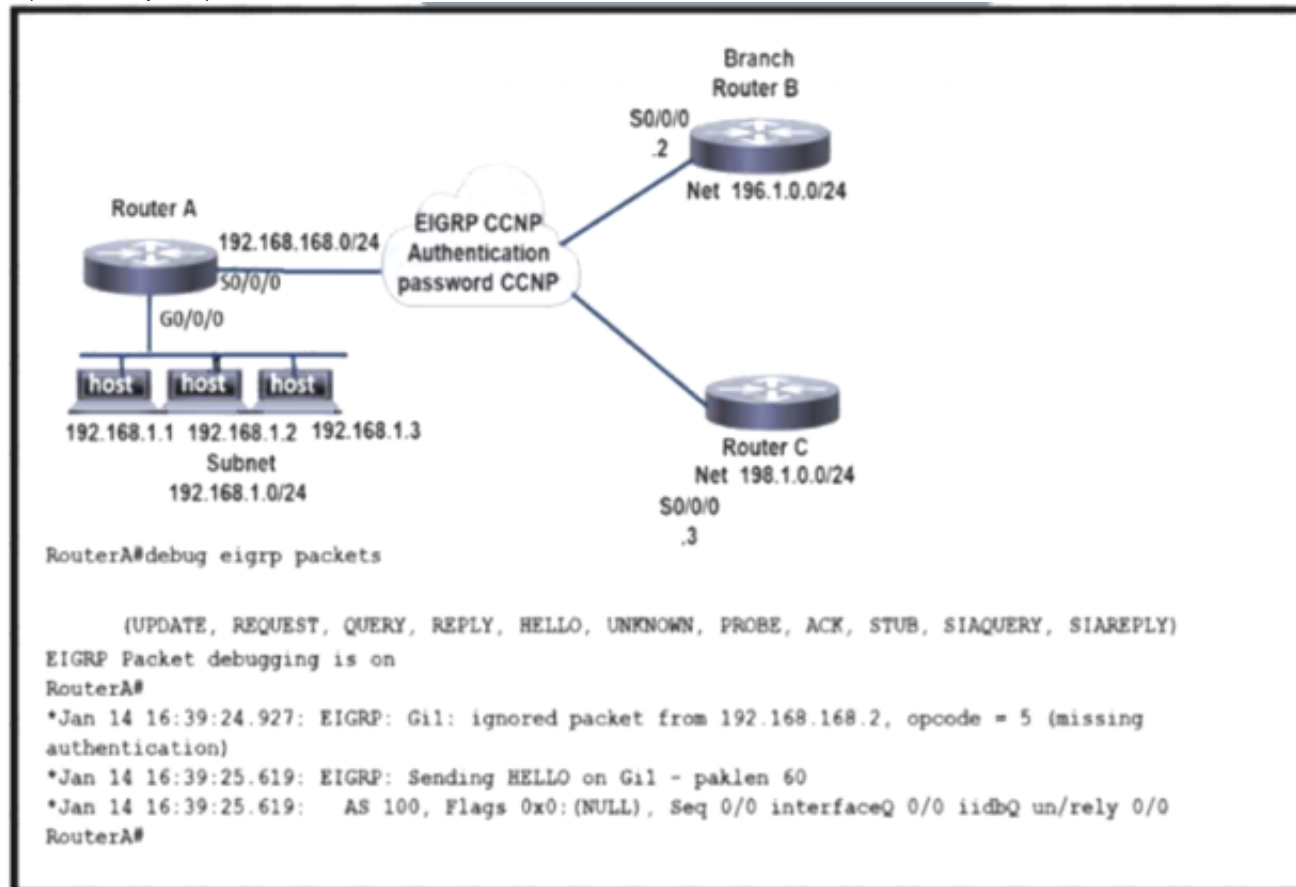
Which routing protocol is used by the PE router to advertise routes to a CE router without redistribution or static after removing the RD tag from the P router?

- A. IS-IS
- B. OSPF
- C. BGPIPV4
- D. MP-BGP

Answer: C

## NEW QUESTION 82

- (Exam Topic 3)



Refer to the exhibit. The services at branch B are down. An engineer notices mal rouser A and router B are not exchanging any routes Which configuration resolves the issue on router B?

A)

```

router eigrp 100
 network 192.168.168.0

key chain CCNP
 key 1
  key-string EIGRP

interface serial0/0/0
 ip address 192.168.168.2 255.255.255.0
 ip authentication mode eigrp 100 md5
 ip authentication key-chain eigrp 100 EIGRP
 negotiation auto
  
```

B)

```

router eigrp 100
 network 192.168.168.0

key chain EIGRP
 key 1
  key-string CCNP

interface serial0/0/0
 ip address 192.168.168.2 255.255.255.0
 ip authentication mode eigrp 100 md5
 negotiation auto
  
```

C)



```
router eigrp 100
 network 192.168.168.0

key chain EIGRP
 key 1
  key-string CCNP

interface serial0/0/0
 ip address 192.168.168.2 255.255.255.0
 ip authentication mode eigrp 100 md5
 ip authentication key-chain eigrp 100 EIGRP
 negotiation auto
```

D)

```
router eigrp 100
 network 192.168.168.0

key chain EIGRP
 key 1
  key-string CCNP

interface serial0/0/0
 ip address 192.168.168.2 255.255.255.0
 ip authentication key-chain eigrp 100 EIGRP
 negotiation auto
```

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

**Answer: C**

#### NEW QUESTION 83

- (Exam Topic 3)

Refer to the exhibit.

```
R2(config)# int tun0
*Jun 23 00:42:06.179: %LINEPROTO-5-UPDOWN: Line protocol on
Interface Tunnel0, changed state to down

R2(config-if)# ip address 192.168.12.2 255.255.255.0
R2(config-if)# tunnel source lo0
R2(config-if)# tunnel destination 10.255.255.1

*Jun 23 00:42:15.845: %LINEPROTO-5-UPDOWN: Line protocol on
Interface Tunnel0, changed state to up

R2(config-if)# router eigrp E
R2(config-router)# address-family ipv4 autonomous-system 1
R2(config-router-af)# net 192.168.12.2 0.0.0.0

*Jun 23 00:43:05.730: %DUAL-5-NBRCHANGE: EIGRP-IPv4 1: Neighbor
192.168.12.1 (Tunnel0) is up: new adjacency
* Jun 23 00:43:05.993: %ADJ-5-PARENT: Midchain parent maintenance
for IP midchain out of Tunnel0 - looped chain attempting to stack
*Jun 23 00:43:15.193: %TUN-5-RECURDOWN: Tunnel0 temporarily
disabled due to recursive routing

*Jun 23 00:43:15.193: %LINEPROTO-5-UPDOWN: Line protocol on
Interface Tunnel0, changed state to down
```

An administrator is configuring a GRE tunnel to establish an EIGRP neighbor to a remote router. The other tunnel endpoint is already configured. After applying the configuration as shown, the tunnel started flapping. Which action resolves the issue?

- A. Modify the network command to use the Tunnel0 interface netmask
- B. Advertise the Loopback0 interface from R2 across the tunnel
- C. Stop sending a route matching the tunnel destination across the tunnel
- D. Readdress the IP network on the Tunnel0 on both routers using the /31 netmask

**Answer: C**

#### Explanation:

In this question we are advertising the tunnel IP address 192.168.12.2 to the other side. When other end receives the EIGRP advertisement, it realizes it can reach the other side of the tunnel via EIGRP. In other words, it reaches the tunnel destination through the tunnel itself -> This causes "recursive routing" error.

Note: In order to avoid this error, do not advertise the tunnel destination IP address on the tunnel interface to other side.

Good recursive routing reference: <https://networklessons.com/cisco/ccie-routing-switching/gretunnel-recursive-routing-error>

#### NEW QUESTION 84

- (Exam Topic 3)

Refer to the exhibit.



```
ip prefix-list DMZ-STATIC seq 5 permit 10.1.1.0/24
!
route-map DMZ permit 10
  match ip address prefix-list DMZ-STATIC
!
router ospf 1
network 0.0.0.0 0.0.0.0 area 0
redistribute static route-map DMZ
!
ip route 10.1.1.0 255.255.255.0 10.20.20.1
```

The static route is not present in the routing table of an adjacent OSPF neighbor router. Which action resolves the issue?

- A. Configure the next hop of 10.20.20.1 in the prefix list DMZ-STATIC
- B. Configure the next-hop interface at the end of the static router for it to get redistributed
- C. Configure a permit 20 statement to the route map to redistribute the static route
- D. Configure the subnets keyword in the redistribution command

**Answer: D**

#### NEW QUESTION 89

- (Exam Topic 3)

Refer to the exhibit.

```
ip prefix-list 1 permit 172.16.0.0/16
ip prefix-list 2 permit 192.168.2.0/24
!
route-map RED permit 10
  match ip address prefix-list 1
  set ip next hop 10.1.1.1
  continue 20
exit
!
route-map RED permit 20
  match ip address prefix-list 2
  set ip next hop 10.2.2.2
end
```

The forwarding entries show that the next hop for prefixes from the 172.16.0.0/16 network is set to 10.2.2.2 instead of 10.1.1.1. Which action resolves the issue?

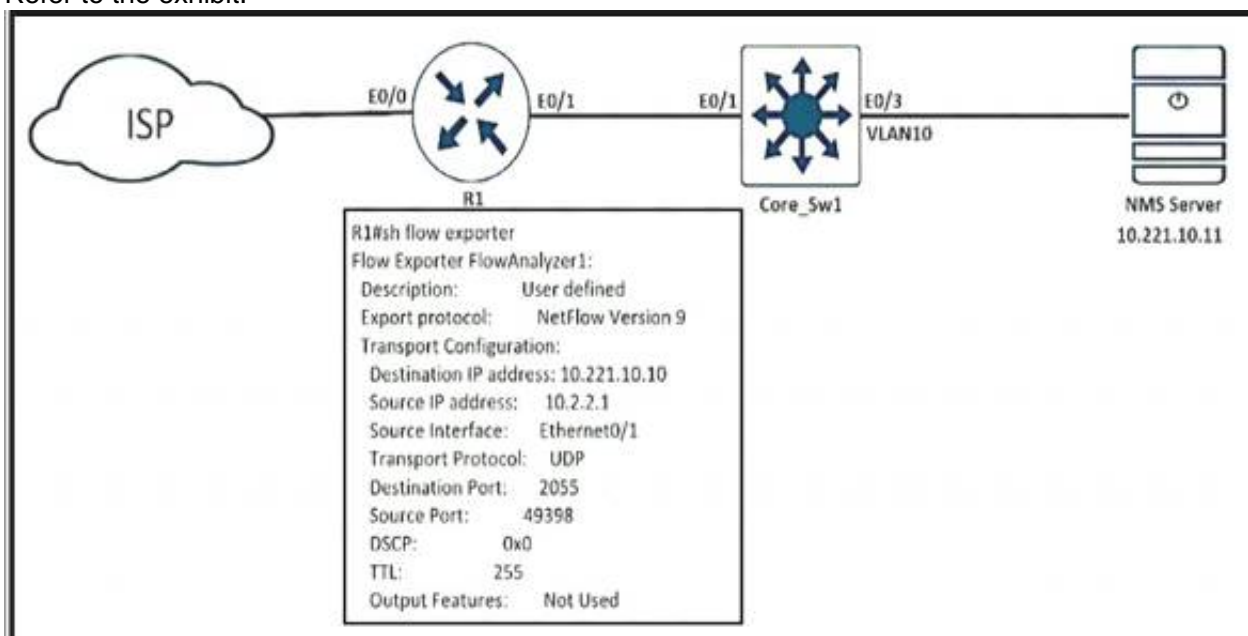
- A. Add set ip next hop 10.1.1.1 in route-map RED permit 20.
- B. Add the continue statement in route-map RED permit 10 instead of continue 20.
- C. Remove match ip address prefix-list 1 from route-map RED permit 10.
- D. Remove the continue 20 statement from route-map RED permit 10

**Answer: D**

#### NEW QUESTION 94

- (Exam Topic 3)

Refer to the exhibit.



An engineer configured NetFlow on R1, but the NMS server cannot see the flow from R1. Which configuration resolves the issue?

- A. flow monitor Flowmonitor1 destination 10.221.10.11
- B. flow exporter FlowAnalyzer1 destination 10.221.10.11
- C. interface Ethernet0/1 flow-destination 10.221.10.11

D. interface Ethernet0/0 flow-destination 10.221.10.11

**Answer:** B

**Explanation:**

From the output we notice that the destination IP address is not correct. The NMS server IP address should be 10.221.10.11, not 10.221.10.10. Therefore we have to change this information under “flow exporter ...” configuration.

NetFlow configuration reference: <https://www.cisco.com/c/en/us/td/docs/iosxml/ios/fnetflow/configuration/15-mt/fnf-15-mt-book/cfg-de-fnflow-exprts.html>

**NEW QUESTION 96**

- (Exam Topic 3)

A customer requested a GRE tunnel through the provider network between two customer sites using loopback to hide internal networks. Which configuration on R2 establishes the tunnel with R1?

- A. R2(config)# interface Tunnel 1 R2(config-if)# ip address 172.20.1.2 255.255.255.0 R2(config-if)# ip mtu 1400 R2(config-if)# ip tcp adjust-mss 1360 R2(config-if)# tunnel source 192.168.20.1 R2(config-if)# tunnel destination 192.168.10.1
- B. R2(config)# interface Tunnel 1 R2(config-if)# ip address 172.20.1.2 255.255.255.0 R2(config-if)# ip mtu 1400 R2(config-if)# ip tcp adjust-mss 1360 R2(config-if)# tunnel source 10.10.2.2 R2(config-if)# tunnel destination 10.10.1.1
- C. R2(config)# interface Tunnel 1 R2(config-if)# ip address 172.20.1.2 255.255.255.0 R2(config-if)# ip mtu 1500 R2(config-if)# ip tcp adjust-mss 1360 R2(config-if)# tunnel source 192.168.20.1 R2(config-if)# tunnel destination 10.10.1.1
- D. R2(config)# interface Tunnel 1 R2(config-if)# ip address 172.20.1.2 255.255.255.0 R2(config-if)# ip mtu 1500 R2(config-if)# ip tcp adjust-mss 1360 R2(config-if)# tunnel source 10.10.2.2 R2(config-if)# tunnel destination 10.10.1.1

**Answer:** D

**NEW QUESTION 99**

- (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 104**

- (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 106**

- (Exam Topic 3)

Refer to the exhibit.

#### Configuration Output:

```
aaa new-model
aaa group server tacacs+ admin
server name admin
|
ip tacacs source-interface GigabitEthernet1
aaa authentication login admin group tacacs+ local enable
aaa session-id common
|
tacacs server admin
address ip 10.11.15.6
key 7 01150F165E1C07032D
|
line vty 0 4
login authentication admin
```

#### Debug Output:

```
Oct 22 12:38:57.587: AAA/BIND(0000001A): Bind if
Oct 22 12:38:57.587: AAA/AUTHEN/LOGIN (0000001A): Pick method list 'admin'
Oct 22 12:38:57.587: AAA/AUTHEN/ENABLE(0000001A): Processing request action LOGIN
Oct 22 12:38:57.587: AAA/AUTHEN/ENABLE(0000001A): Done status GET_PASSWORD
Oct 22 12:39:02.327: AAA/AUTHEN/ENABLE(0000001A): Processing request action LOGIN
Oct 22 12:39:02.327: AAA/AUTHEN/ENABLE(0000001A): Done status FAIL - bad password
```

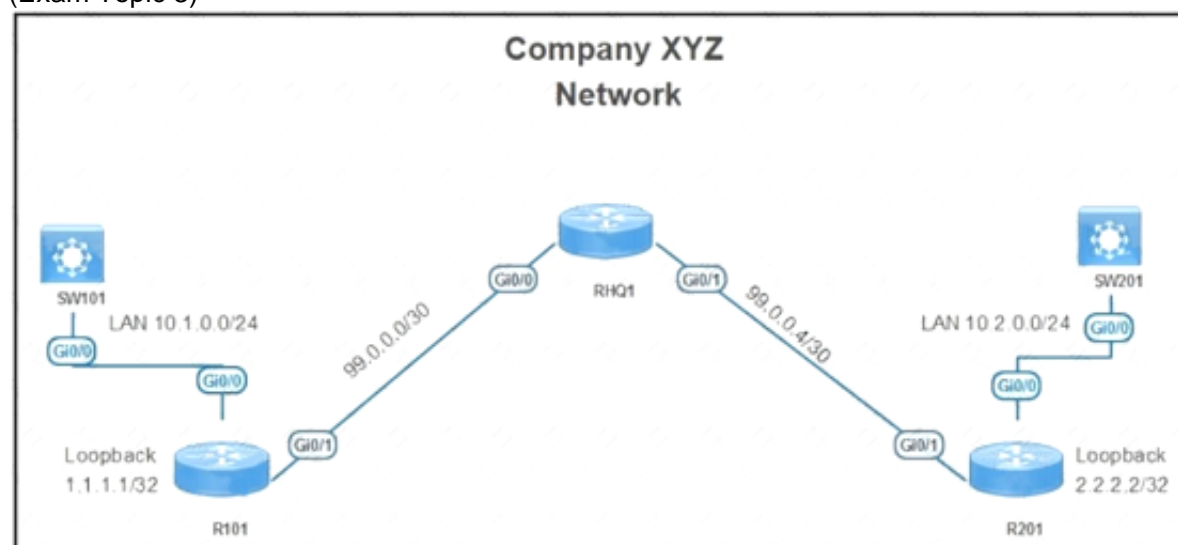
An administrator configured a Cisco router for TACACS authentication, but the router is using the local enable password instead. Which action resolves the issue?

- A. Configure the aaa authentication login admin group admin local enable command instead.
- B. Configure the aaa authentication login admin group tacacs\* local enable none command instead.
- C. Configure the aaa authentication login admin group tacacs\* local if-authenticated command instead.
- D. Configure the aaa authentication login default group admin local if-authenticated command instead.

**Answer: C**

#### NEW QUESTION 109

- (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 110

- (Exam Topic 3)

Refer to the exhibit.

```
flow exporter EXPORTER-1
 destination 172.16.10.2
 export-protocol netflow-v9
 transport udp 90
 exit
!
flow record v4_r1
 match ipv4 tos
 match ipv4 protocol
 match ipv4 source address
 match ipv4 destination address
 match transport source-port
 match transport destination-port
 collect counter bytes long
 collect counter packets long
!
flow monitor FLOW-MONITOR-1
 record v4_r1
!
ip cef
!
interface GigabitEthernet 0/0/0
 ip address 172.16.6.2 255.255.255.0
 ip flow monitor FLOW-MONITOR-1 input
!
```

An engineer configured NetFlow to capture traffic information through the router, but it iOS not working as expected. Which action captures the flow information from this router to the collector?

- A. Change the interface configuration FLOW-MONITOR-1 from input to output.
- B. Configure a flow exporter under flow FLOW-MONITOR-1.
- C. Configure more than one flow exporter destination addresses.
- D. Change the flow exporter transport protocol from UDP to TCP

**Answer: B**

#### NEW QUESTION 111

- (Exam Topic 3)

Refer to the exhibit.

```
ip sla 1
 icmp-echo 8.8.8.8
 threshold 1000
 timeout 2000
 frequency 5
ip sla schedule 1 life forever start-time now
!
track 1 ip sla 1
!
ip route 0.0.0.0 0.0.0.0 203.0.113.1 name ISP1 track 1
ip route 0.0.0.0 0.0.0.0 198.51.100.1 name ISP2 track 1
```

An administrator configures a router to stop using a particular default route if the DNS server 8.8.8.8 is not reachable through that route. However, this configuration did not work as desired and the default route still works even if the DNS server 8.8.8 8 is unreachable. Which two configuration changes resolve the issue? (Choose two.)

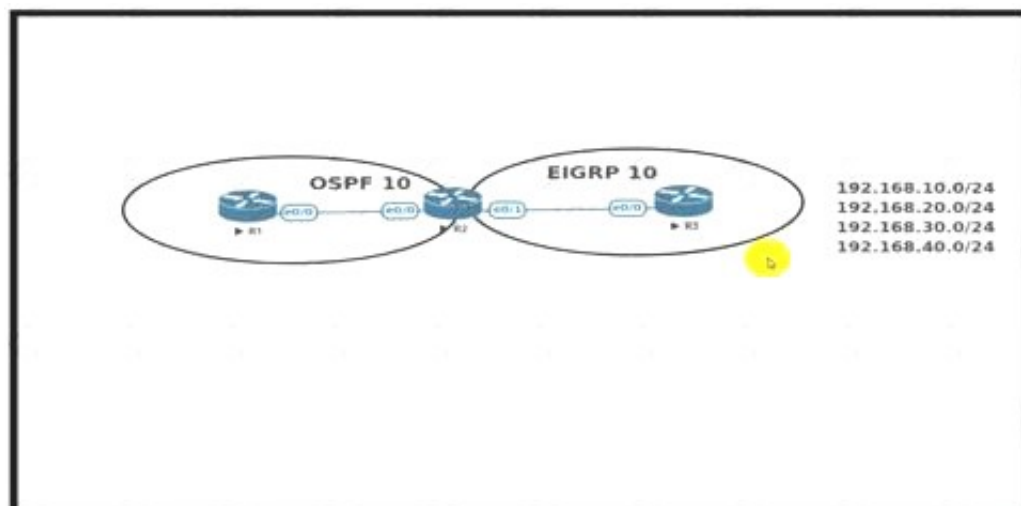
- A. Configure two static routes for the 8.8.8.8/32 destination to match the IP SLA probe for each ISP.
- B. Associate every IP SLA probe with the proper WAN address of the router.
- C. Reference the proper exit interfaces along with the next hops in both static default routes.
- D. Use a separate track object to reference the existing IP SLA 1 probe for every static route.
- E. Use a separate IP SLA probe and track object for every static route

**Answer: AE**

#### NEW QUESTION 115

- (Exam Topic 3)

Refer to the exhibit.



An engineer must redistribute networks 192.168.10.0/24 and 192.168.20.0/24 into OSPF from EIGRP. where the metric must be added when traversing through multiple hops to start an external route of 20 The engineer notices that the external metric is fixed and does not add at each hop. Which configuration resolves the issue?



```
R2(config)#access-list 10 permit 192.168.10.0 0.0.0.255
R2(config)#access-list 10 permit 192.168.20.0 0.0.0.255
!
R2(config)#route-map RD permit 10
R2(config-route-map)#match ip address 10
R2(config-route-map)#set metric 20
R2(config-route-map)#set metric-type type-2
!
R2(config)#router ospf 10
R2(config-router)#redistribute eigrp 10 subnets route-map RD
```

```
R2(config)#access-list 10 permit 192.168.10.0 0.0.0.255
R2(config)#access-list 10 permit 192.168.20.0 0.0.0.255
!
R2(config)#route-map RD permit 10
R2(config-route-map)#match ip address 10
R2(config-route-map)#set metric 20
R2(config-route-map)#set metric-type type-1
!
R2(config)#router ospf 10
R2(config-router)#redistribute eigrp 10 subnets route-map RD
```

```
R1(config)#access-list 10 permit 192.168.10.0 0.0.0.255
R1(config)#access-list 10 permit 192.168.20.0 0.0.0.255
!
R1(config)#route-map RD permit 10
R1(config-route-map)#match ip address 10
R1(config-route-map)#set metric 20
R1(config-route-map)#set metric-type type-1
!
R1(config)#router ospf 10
R1(config-router)#redistribute eigrp 10 subnets route-map RD
```

```
R1(config)#access-list 10 permit 192.168.10.0 0.0.0.255
R1(config)#access-list 10 permit 192.168.20.0 0.0.0.255
!
R1(config)#route-map RD permit 10
R1(config-route-map)#match ip address 10
R1(config-route-map)#set metric 20
R1(config-route-map)#set metric-type type-2
!
R1(config)#router ospf 10
R1(config-router)#redistribute eigrp 10 subnets route-map RD
```

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

Answer: B

#### NEW QUESTION 116

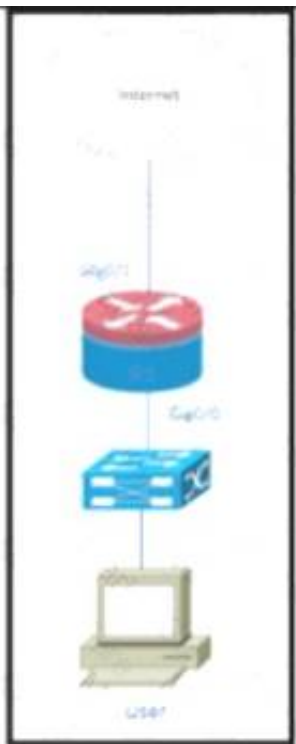
- (Exam Topic 3)

```
R1#show time-range

time-range entry: timer (active)
  periodic weekend 9:00 to 17:00
  used in: IP ACL entry
  used in: IP ACL entry

R1#show ip access-list interface gig0/0

Extended IP access list NO_Internet in
  10 deny tcp any any eq www time-range timer (active)
  20 deny tcp any any eq 443 time-range timer (active)
  30 permit ip any any
```



Refer to the exhibit. Users on a call center report that they cannot browse the internet on Saturdays during the afternoon. Which configuration resolves the issue?  
A)

```
interface gig0/0
ip access-group NO_Internet out
```

B)

```
ip access-list extended NO_Internet
15 permit tcp any any eq www
```

C)

```
no time-range timer
```

D)

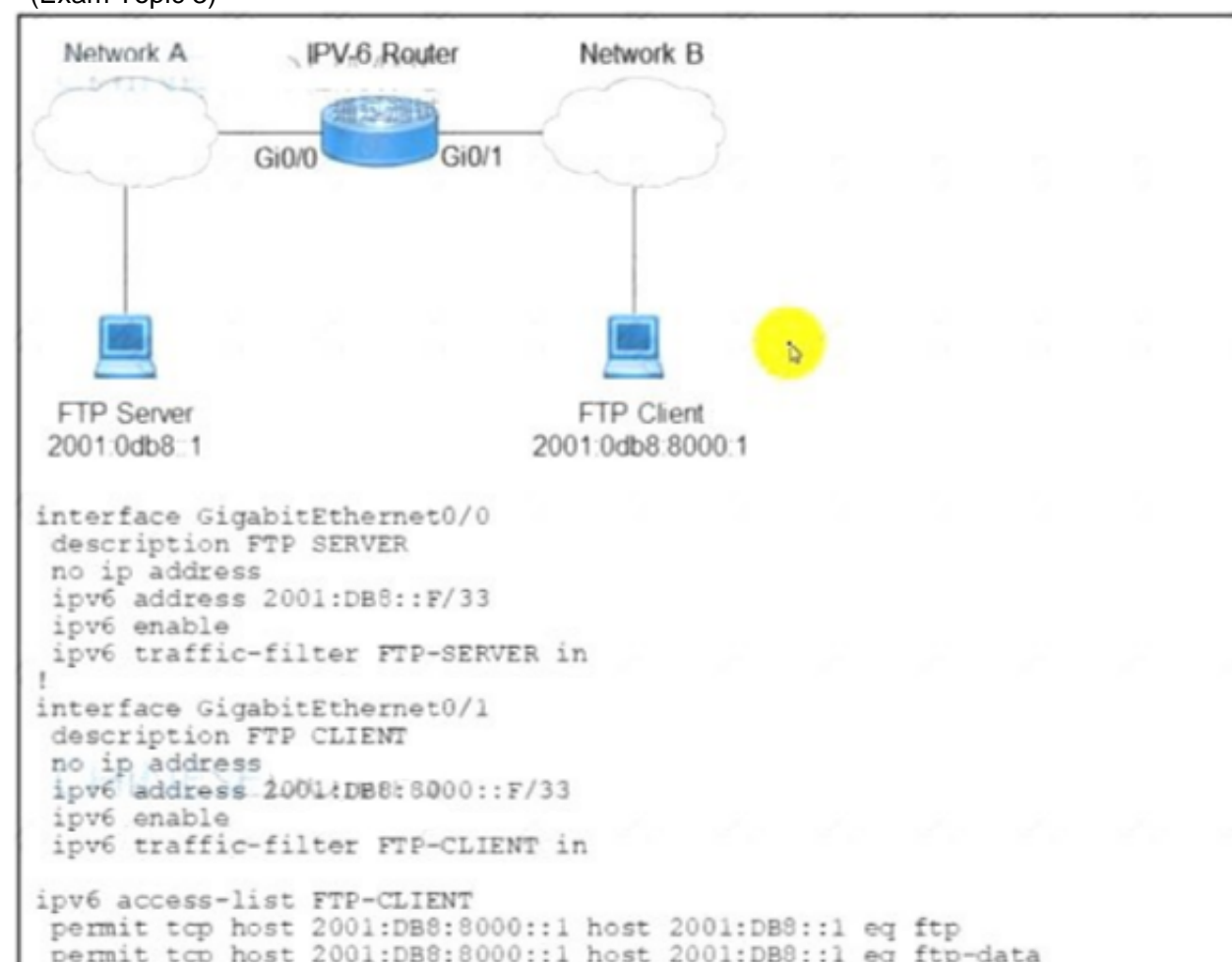
```
time-range timer
no periodic weekend 9:00 to 17:00
periodic weekend 17:00 to 23:59
```

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

**Answer: D**

#### NEW QUESTION 119

- (Exam Topic 3)



```
ipv6 access-list FTP-CLIENT
 permit tcp host 2001:db8:8000::1 host 2001:db8::1 eq ftp
 permit tcp host 2001:db8:8000::1 host 2001:db8::1 eq ftp-data
!
ipv6 access-list FTP-SERVER
 permit tcp host 2001:db8::1 host 2001:db8:8000::1 eq ftp-established
 permit tcp host 2001:db8::1 host 2001:db8:8000::1 eq ftp-data established
```

Refer to the exhibit. When an FTP client attempts to use passive FTP to connect to the FTP server, the file transfers fail Which action resolves the issue?

- A. Configure active FTP traffic.
- B. Modify FTP-SERVER access list to remove established at the end.
- C. Modify traffic filter FTP-SERVER in to the outbound direction.
- D. Configure to permit TCP ports higher than 1023.

**Answer: D**

#### NEW QUESTION 124

- (Exam Topic 3)

```
R1#show bgp ipv6 unicast 2001:db8::1/128
BGP routing table entry for 2001:db8::1/128, version 3
Paths: (1 available, best #1, table Global-IPv6-Table)
Not advertised to any peer
Local
 2001:db8:33:33::33 (metric 128) from 2001:db8:11:11::11 (1.1.1.1)
  Origin IGP, metric 0, localpref 100, valid, internal, best
  Originator: 3.3.3.3, Cluster list: 1.1.1.1
```

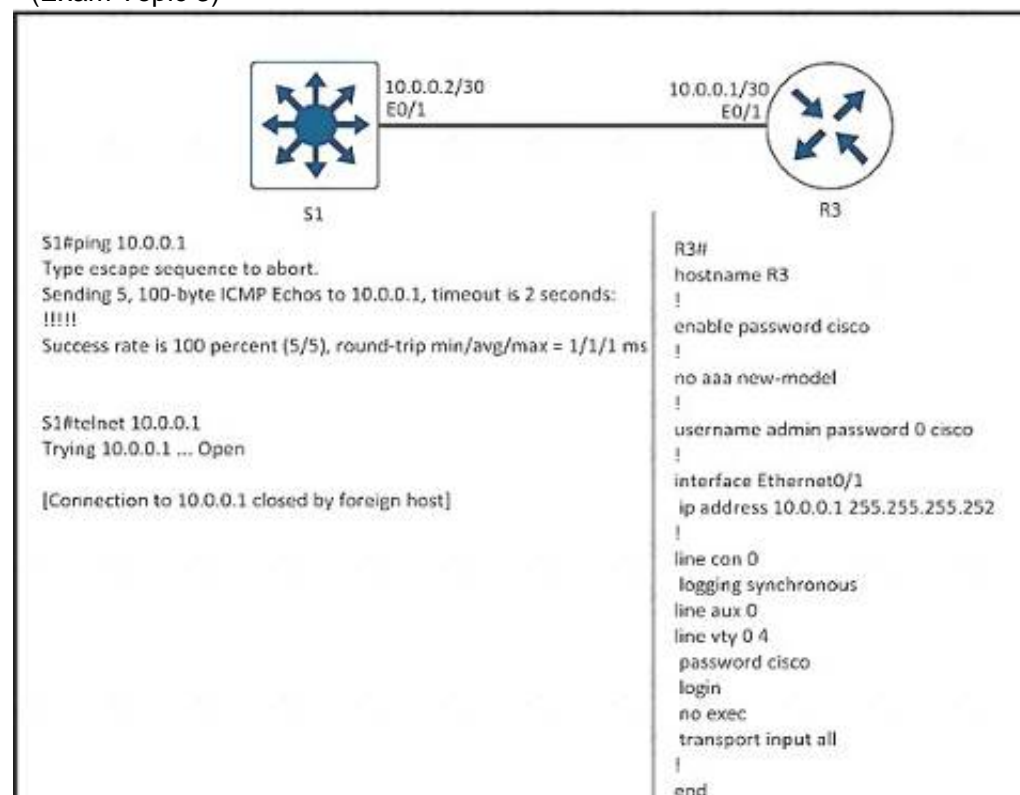
Refer to the exhibit. An engineer examines the BGP update for the IPv6 prefix 2001:db8::1/128. which should have been summarized into a /64 prefix. Which sequence of actions achieves the summarization?

- A. R1 is a route reflector client of a RR with a router ID of 1.1.1.1. and the originator of the prefix has a router ID of 3.3.3.3. Both routers belong to different AS
- B. The prefix is not advertised to any peer and must be advertised using the network statement on R3.
- C. R1 is a route reflector with a router ID of 3.3.3.3. and the originator of the prefix is a route reflector client, which has a router ID of 3.3.3.3. Both routers belong to the same AS Configure an aggregate address on the router with ID 1.1.1.1 for the prefix
- D. R1 is a route reflector with a router ID of 1.111. and the originator of the prefix is a route reflector client, which has a router ID of 3.3.3.3. Both routers belong to the same AS Configure an aggregate address on the router with ID 1.1.1.1 for the prefix
- E. R1 is a route reflector client of a RR with a router ID of 1.1.1.1. and the originator of the prefix has a router ID of 3.3.3.3. Both routers belong to the same A
- F. Configure an aggregate address on the router with ID 3 3.3.3 for the prefix.

**Answer: D**

#### NEW QUESTION 126

- (Exam Topic 3)



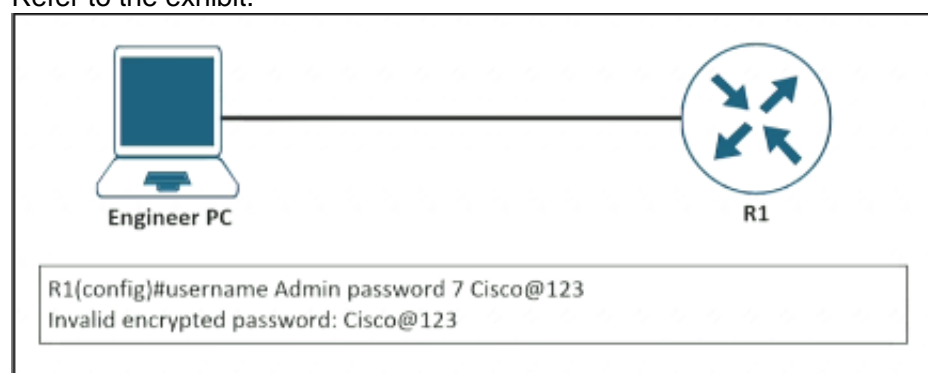
Refer to the exhibit. A network engineer cannot remote access R3 using Telnet from switch S1. Which action resolves the issue?

- A. Allow the inbound connection via the exec command on R3.
- B. Add the transport input telnet command on R3.
- C. Allow to use the ssh -l admin 10.0.0.1 command on the switch.
- D. Add the login admin command on the switch.

**Answer: A**

#### NEW QUESTION 127

- (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 131

- (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.)

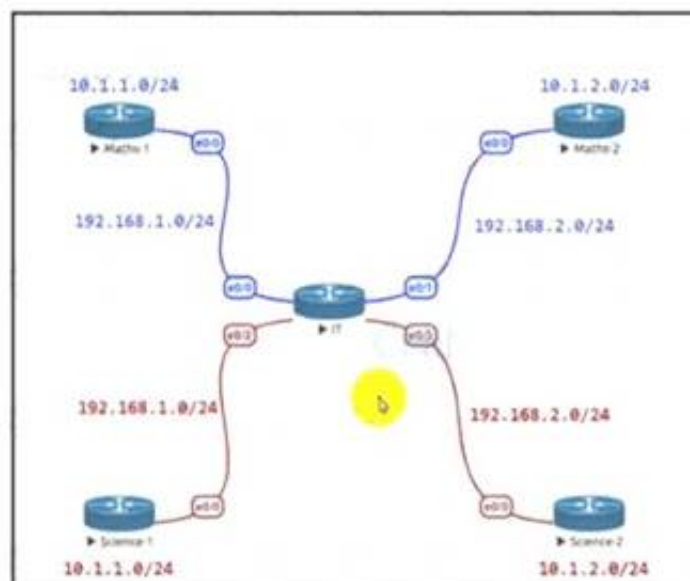
- A. Enable the ND proxy feature on the default gateway.
- B. Configure a link-local address on the Ethernet0/1 interface.
- C. Permit ICMPv6 neighbor discovery traffic in the ACL.
- D. Remove the ACL entry 80.
- E. Change the next hop of the default route to the link-local address of the default gateway.

**Answer: CD**

### NEW QUESTION 135

- (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 138

- (Exam Topic 3)

Which two protocols are used by a P router to transfer VPN traffic between PE routers in an MPLS network? (Choose two.)

- A. BGP
- B. OSPF
- C. MP-BGP
- D. LDP
- E. RSVP

**Answer: CD**

#### NEW QUESTION 141

- (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 144

- (Exam Topic 3)

Which two technologies optimize MPLS infrastructure using bandwidth protection services when experiencing slow response? (Choose two.)

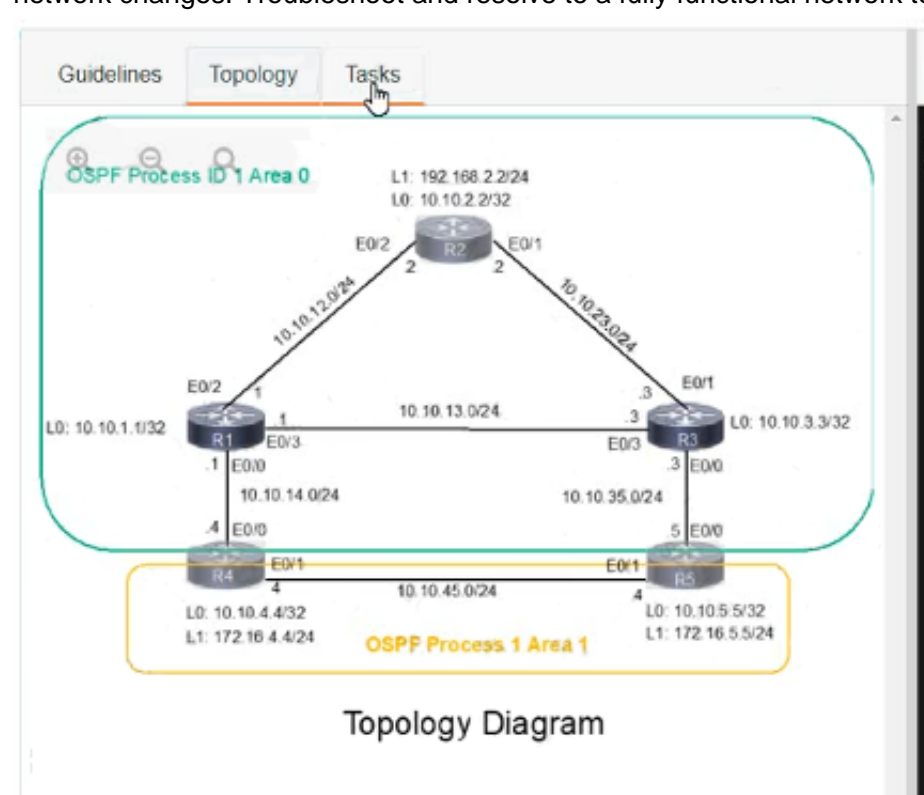
- A. IPLFA
- B. MPLS OAM
- C. VPLS
- D. SO-MPLS
- E. Fast-Rwoute

**Answer: AE**

#### NEW QUESTION 145

- (Exam Topic 3)

A network is configured with IP connectivity, and the routing protocol between devices started having problems right after the maintenance window to implement network changes. Troubleshoot and resolve to a fully functional network to ensure that:



Guidelines Topology **Tasks**

A network is configured with IP connectivity, and the routing protocol between devices started having problems right after the maintenance window to implement network changes. Troubleshoot and resolve to a fully functional network to ensure that:

1. Inter-area links have link authentication (not area authentication) using MD5 with the key 1 string CCNP.
2. R3 is a DR regardless of R2 status while R1 and R2 establish a DR/BDR relationship.
3. OSPF uses the default cost on all interfaces. Network reachability must follow OSPF default behavior for traffic within an area over intra-area VS inter-area links.
4. The OSPF external route generated on R4 adds link cost when traversing through the network to reach R2. A network command to advertise routes is not allowed.

R2 R4 R5

```
R2>en
R2#
R2#
R2#
R2#
R2#
R2#
R2#sh run
Building configuration...

Current configuration : 1279 bytes
!
version 15.8
service timestamps debug datetime msec
service timestamps log datetime msec
no service password-encryption
!
hostname R2
!
boot-start-marker
boot-end-marker
!
!
!
no aaa new-model
!
!
!
clock timezone PST -8 0
mmi polling-interval 60
no mmi auto-configure
```

R2 R4 R5

```
interface Loopback0
ip address 10.10.2.2 255.255.255.255
ip ospf 1 area 0
!
interface Loopback1
ip address 192.168.2.2 255.255.255.0
ip ospf 1 area 0
!
interface Ethernet0/0
no ip address
shutdown
duplex auto
!
interface Ethernet0/1
ip address 10.10.23.2 255.255.255.0
ip ospf 1 area 0
duplex auto
!
interface Ethernet0/2
ip address 10.10.12.2 255.255.255.0
ip ospf 1 area 0
duplex auto
!
interface Ethernet0/3
no ip address
shutdown
duplex auto
!
router ospf 1
passive-interface default
no passive-interface Ethernet0/1
no passive-interface Ethernet0/2
```

R4

Activate V  
Go to Setting



Activate  
Go to Settings

Activate W  
Go to Settings

*Your Partner of IT Exam*

```
R2    R4    R5
!
!  
!  
!  
!  
!  
!  
!  
!  
  
!  
!  
!  
!  
no ip domain lookup  
ip cef  
no ipv6 cef  
!  
multilink bundle-name authenticated  
!  
!  
!  
key chain CCNP  
  key 1  
    key-string CCNP  
    cryptographic-algorithm md5  
!  
!  
!  
!
```

```

R2  R4  R5
!
!
!
!
!
!
interface Loopback0
ip address 10.10.5.5 255.255.255.255
ip ospf 1 area 1
!
interface Loopback1
ip address 172.16.5.5 255.255.255.0
!
interface Ethernet0/0
ip address 10.10.35.5 255.255.255.0
ip ospf authentication key-chain CCNP
ip ospf 1 area 0
duplex auto
!
interface Ethernet0/1
ip address 172.16.45.5 255.255.255.0
ip ospf 1 area 1
ip ospf cost 60
duplex auto
!
interface Ethernet0/2
no ip address
shutdown
duplex auto
!
interface Ethernet0/3
no ip address

```

```

R2  R4  R5
!
router ospf 1
 redistribute connected subnets route-map to-ospf
 passive-interface default
 no passive-interface Ethernet0/0
 no passive-interface Ethernet0/1
!
ip forward-protocol nd
!
!
no ip http server
no ip http secure-server
!
ipv6 ioam timestamp
!
route-map to-ospf permit 10
 match interface Loopback1
!
!
!
control-plane
!
!
!
!
!
!
!
line con 0
 logging synchronous
line aux 0

```

- A. Mastered
- B. Not Mastered

**Answer: A**

**Explanation:**

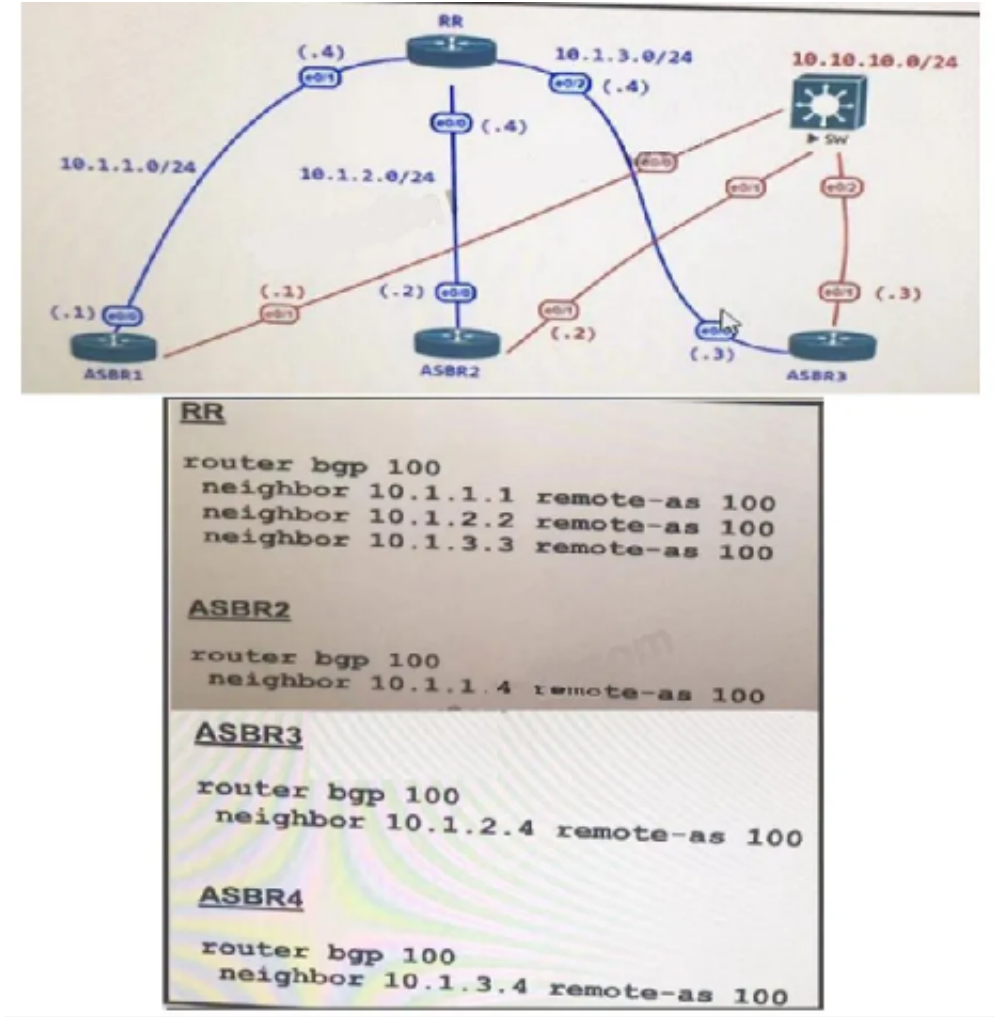
R4  
 Int range et0/0 – 1  
 Ip ospf authentication message-digest  
 Ip ospf message-digest-key 1 md5 CCNP  
 Router ospf 1  
 Redistribute connected subnets route-map to-ospf metric-type 1 Copy run start  
 R5  
 Int range et0/0 – 1  
 Ip ospf authentication message-digest  
 Ip ospf message-digest-key 1 md5 CCNP Interface eth 0/1  
 Ip ospf cost 10 Copy run start VERIFICATION:Graphical user interface, text, application Description automatically generated

```
R2#show ip ospf nei
R2#show ip ospf neighbor

Neighbor ID    Pri   State           Dead Time   Address      Interface
10.10.1.1      1     FULL/BDR        00:00:38   10.10.12.1   Ethernet0/2
10.10.3.3      1     FULL/BDR        00:00:30   10.10.12.1   Ethernet0/1
R2#
```

**NEW QUESTION 148**

- (Exam Topic 3)  
Refer to the exhibit.



The administrator configured the network device for end-to-end reachability, but the ASBRs are not propagation routes to each other. Which set of configuration resolves this issue?

- A. 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
- B. 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
- C. 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
- D. router bgp 100 neighbor 10.1.1.1 ebgp-multihop neighbor 10.1.2.2 ebgp-multihop neighbor 10.1.3.3 ebgp-multihop

**Answer: A**

**NEW QUESTION 149**

- (Exam Topic 3)

The network administrator is tasked to configure R1 to authenticate telnet connections based on Cisco ISE using RADIUS. ISE has been configured with an IP address of 192.168.1.5 and with a network device pointing towards R1 (192.168.1.1) with a shared secret password of Cisco123. If ISE is down, the administrator should be able to connect using the local database with a username and password combination of admin/cisco123.

The administrator has configured the following on R1:

```
aaa new-model
!
username admin password cisco123
!
radius server ISE1
address ipv4 192.168.1.5
key Cisco123
!
aaa group server tacacs+ RAD-SERV
server name ISE1
!
aaa authentication login RAD-LOCAL group RAD-SERV
```

ISE has gone down. The Network Administrator is not able to Telnet to R1 when ISE went down. Which two configuration changes will fix the issue? (Choose two.)



- ☐ line vty 0 4  
login authentication RAD-LOCAL
- ☐ line vty 0 4  
login authentication default
- ☐ line vty 0 4  
login authentication RAD-SERV
- ☐ aaa authentication login RAD-SERV group RAD-LOCAL local
- ☐ aaa authentication login RAD-LOCAL group RAD-SERV local

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

**Answer:** CE

#### NEW QUESTION 150

- (Exam Topic 3)

What is a function of the IPv6 DHCP Guard feature for DHCP messages?

- A. Only access lists are supported for matching traffic.
- B. All client messages are always switched regardless of the device role.
- C. It blocks only DHCP request messages.
- D. If the device is configured as a DHCP server, no message is switched.

**Answer:** B

#### NEW QUESTION 155

- (Exam Topic 3)

```
*Sep 3 23:18:21.264: EIGRP: Neighbor (10.1.2.192) not yet found
*Sep 3 23:19:18.675: Going down: Peer 10.1.2.1 total=2 stub 0, iadb-stub=0 iid-all=0
*Sep 3 23:19:18.675: EIGRP: Handle deallocation failure [1]
*Sep 3 23:19:18.675: EIGRP: Neighbor 10.1.2.1 went down on Tunnel1.
*Sep 3 23:19:22.943: EIGRP: New peer 10.1.2.1.
*Sep 3 23:19:22.943: %DUAL-5-NBRCHANGE: EIGRP-IPv4 3111: Neighbor 10.1.2.1 (Tunnel1) is up: new adjacency
```

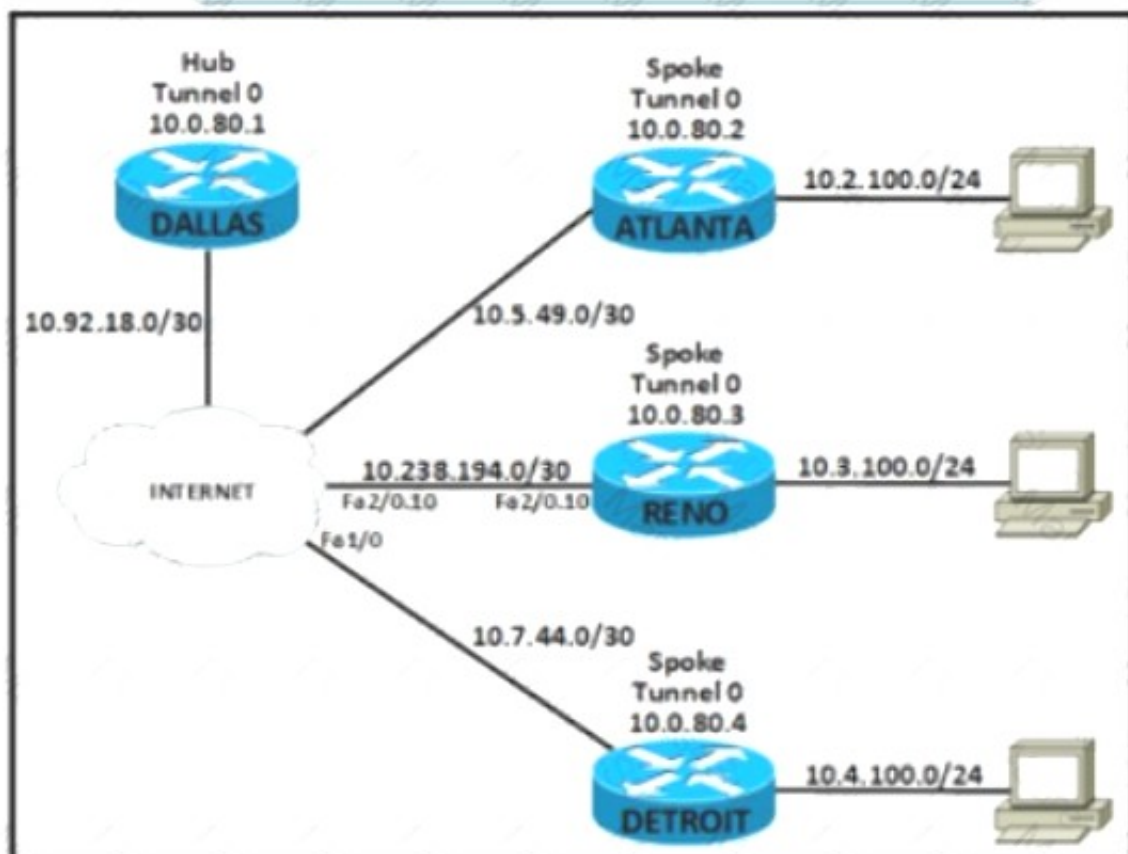
Refer to the exhibit. Which configuration command establishes an EIGRP neighbor adjacency between the hub and spoke?

- A. connected 10.1.2.192 command on spoke router
- B. network 10.1.2.192 command on spoke router
- C. eigrp-peer 10.1.2.192 command on the hub router
- D. neighbor 10.1.2.192 command on hub router

**Answer:** D

#### NEW QUESTION 157

- (Exam Topic 3)



Refer to the exhibit An engineer must connect the Reno and Detroit spokes using DMVPN phase 2 Hub tunnel configuration is

Dallas

```
interface Tunnel0
ip address 10.0.80.1 255.255.255.0
ip nhrp authentication cisco123
ip nhrp map multicast dynamic
ip nhrp network-id 5
tunnel source Serial0/0
tunnel mode gre multipoint
```

Which configuration accomplishes the task?

☐ Reno

```
interface Tunnel0
ip address 10.0.80.3 255.255.255.0
ip nhrp authentication cisco321
ip nhrp map multicast 10.92.18.2
ip nhrp map 10.0.80.1 10.92.18.2
ip nhrp network-id 5
ip nhrp nhs 10.0.80.1
tunnel source 10.238.194.2
tunnel mode gre multipoint
```

Detroit

```
interface Tunnel0
ip address 10.0.80.4 255.255.255.0
ip nhrp authentication cisco321
ip nhrp map 10.0.80.1 10.92.18.2
ip nhrp map multicast 10.92.18.2
ip nhrp network-id 5
ip nhrp nhs 10.0.80.1
tunnel source 10.7.44.2
tunnel mode gre multipoint
```

☐ Reno

```
interface Tunnel0
ip address 10.0.80.3 255.255.255.0
ip nhrp authentication cisco123
ip nhrp map multicast 10.92.18.2
ip nhrp map 10.92.18.2 10.0.80.1
ip nhrp network-id 5
ip nhrp nhs 10.0.80.1
tunnel source 10.238.194.2
tunnel mode gre multipoint
```

Detroit

```
interface Tunnel0
ip address 10.0.80.4 255.255.255.0
ip nhrp authentication cisco123
ip nhrp map 10.92.18.2 10.0.80.1
ip nhrp map multicast 10.92.18.2
ip nhrp network-id 5
ip nhrp nhs 10.0.80.1
tunnel source 10.7.44.2
tunnel mode gre multipoint
```

```
○ Reno
interface Tunnel0
 ip address 10.0.80.3 255.255.255.0
 ip nhrp authentication cisco123
 ip nhrp map broadcast 10.92.18.2
 ip nhrp map 10.0.80.1 10.92.18.2
 ip nhrp network-id 5
 ip nhrp nhs 10.0.80.1
 tunnel source 10.238.194.2
 tunnel mode gre multipoint
```

```
Detroit
interface Tunnel0
 ip address 10.0.80.4 255.255.255.0
 ip nhrp authentication cisco123
 ip nhrp map 10.0.80.1 10.92.18.2
 ip nhrp map broadcast 10.92.18.2
 ip nhrp network-id 5
 ip nhrp nhs 10.0.80.1
 tunnel source 10.7.44.2
 tunnel mode gre multipoint
```

```
○ Reno
interface Tunnel0
 ip address 10.0.80.3 255.255.255.0
 ip nhrp authentication cisco123
 ip nhrp map multicast 10.92.18.2
 ip nhrp map 10.0.80.1 10.92.18.2
 ip nhrp network-id 5
 ip nhrp nhs 10.0.80.1
 tunnel source 10.238.194.2
 tunnel mode gre multipoint
```

```
Detroit
interface Tunnel0
 ip address 10.0.80.4 255.255.255.0
 ip nhrp authentication cisco123
 ip nhrp map 10.0.80.1 10.92.18.2
 ip nhrp map multicast 10.92.18.2
 ip nhrp network-id 5
 ip nhrp nhs 10.0.80.1
 tunnel source 10.7.44.2
 tunnel mode gre multipoint
```

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

**Answer:** C

#### NEW QUESTION 158

- (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 163

- (Exam Topic 3)



```
R4#show ip flow export
Flow export v9 is enabled for main cache
Export source and destination details :
VRF ID : Default
Source(1)      10.0.0.10 (GigabitEthernet2/0)
Destination(1) 192.168.10.1 (656)
Version 9 flow records
254 flows exported in 41 udp datagrams
0 flows failed due to lack of export packet
0 export packets were sent up to process level
41 export packets were dropped due to no fib
0 export packets were dropped due to adjacency issues
0 export packets were dropped due to fragmentation failures
0 export packets were dropped due to encapsulation fixup failures

R4#show ip flow interface
GigabitEthernet2/0
ip flow ingress
```



Refer to the exhibit An enterprise operations team must monitor all application server traffic in the data center The team finds that traffic coming from the hub site from R3 and R6 rs monitored successfully but traffic destined to the application server is not monitored Which action resolves the issue?

A)

```
R4(config)#int gigabitEthernet 1/0
R4(config-if)#ip flow ingress
```

B)

```
R1(config)#int gigabitEthernet 0/0
R1(config-if)#ip flow egress
```

C)

```
R4(config)#int gigabitEthernet 2/0
R4(config-if)#ip flow egress
```

D)

```
R3(config)#int gigabitEthernet 0/0
R3(config-if)#ip flow egress
```

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

**Answer: C**

#### NEW QUESTION 164

- (Exam Topic 3)

A customer is running an mGRE DMVPN tunnel over WAN infrastructure between hub and spoke sites. The existing configuration allows NHRP to add spoke routers automatically to the multicast NHRP mappings. The customer is migrated the network from IPv4 to the IPv6 addressing scheme for those spokes' routers that support IPv6 and can run DMVPN tunnel over the IPv6 network. Which configuration must be applied to support IPv4 and IPv6 DMVPN tunnel on spoke routers?

- A. Tunnel mode ipv6ip 6to4
- B. Tunnel mode ipv6ip isatap
- C. Tunnel mode ipv6ip auto-tunnel
- D. Tunnel mode ipv6ip 6rd

**Answer: C**

#### NEW QUESTION 167

- (Exam Topic 3)

What is considered the primary advantage of running BFD?



- A. reduction in time needed to detect Layer 2 switched neighbor failures
- B. reduction in time needed to detect Layer 3 routing neighbor failures
- C. reduction in CPU needed to detect Layer 2 switch neighbor failures
- D. reduction in CPU needed to detect Layer 3 routing neighbor failures

**Answer: B**

#### NEW QUESTION 170

- (Exam Topic 3)

- A. The administrator distance should be raised to 120 from the ASBR 104 15.5.
- B. The redistributed prefixes should be advertised as Type 1.
- C. The ASBR 10 4 17 6 should assign a tag to match and assign a lower metric on R1
- D. The administrative distance should be raised to 120 from the ASBR 104 17 6

**Answer: B**

#### NEW QUESTION 171

- (Exam Topic 3)

Refer to the exhibit.

```
R2#sh ip route
Codes: C - connected, S - static, R - RIP, M - mobile, B - BGP
       D - EIGRP, EX - EIGRP external, O - OSPF, IA - OSPF inter area
       N1 - OSPF NSSA external type 1, N2 - OSPF NSSA external type 2
       E1 - OSPF external type 1, E2 - OSPF external type 2
       i - IS-IS, su - IS-IS summary, L1 - IS-IS level-1, L2 - IS-IS level-2
       ia - IS-IS inter area, * - candidate default, U - per-user static route
       o - ODR, P - periodic downloaded static route

Gateway of last resort is not set

C    192.168.10.0/24 is directly connected, Serial1/0
     172.16.0.0/16 is variably subnetted, 5 subnets, 2 masks
C     172.16.160.0/19 is directly connected, Loopback1
C     172.16.128.0/19 is directly connected, Loopback0
C     172.16.224.0/19 is directly connected, Loopback3
C     172.16.192.0/19 is directly connected, Loopback2
D     172.16.0.0/16 is a summary, 00:01:27, Null0
```

An engineer must configure EIGRP between R1 and R2 with no summary route. Which configuration resolves the issue?

A)

```
R1(config)#router eigrp 1
R1(config-router)#no auto-summary
```

B)

```
R2 (config)#router eigrp 1
R2 (config-router)#no auto-summary
```

C)

```
R2 (config)#router eigrp 1
R2 (config-router)#auto-summary
```

D)

```
R1(config)#router eigrp 1
R1(config-router)#auto-summary
```

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

**Answer: B**

#### NEW QUESTION 173

- (Exam Topic 3)

Customer ABC BGP Peering

```

R2#sh ip bgp ipv6 uni
BGP table version is 45, local router ID is 2.2.22.22
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,
               t secondary path,
Origin codes: i - IGP, e - EGP, ? - incomplete
RPKI validation codes: V valid, I invalid, N Not found

```

```

t secondary
Origin codes: i - IGP, e - EGP, ? - incomplete
RPKI validation codes: V valid, I invalid, N Not found

Network      Next Hop      Metric LocPrf Weight Path
*> 2001::5/128 2001::5        0         0 300 200 i
*> 2001::4/128 2001::4        0         0 300 i
*> 2002::2/128 ::            0       32768 i

R2#sh run | section bgp
router bgp 100
  address-family ipv6
    neighbor 2001::4 route-map Filter in

ip as-path access-list 1 permit _300_[0-9]

route-map Filter permit 10
match as-path 1

```

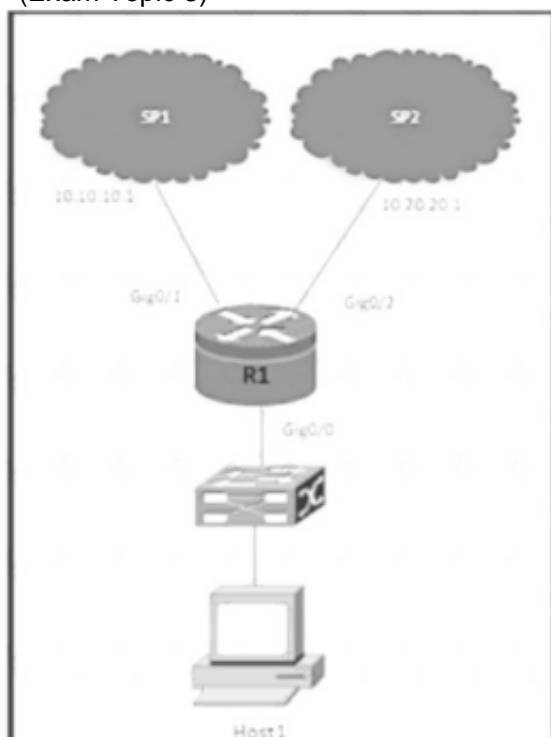
Refer to the exhibit R2 has been receiving routes from R4 that originated outside AS300 A network engineer configured an AS-Path ACL to avoid adding these routes to the R2 BGP table but the routes are still present in the R2 routing table Which action resolves the issue?

- A. Replace as-path access-list 1 with the ip as-path access-list 1 permit A300\$ command
- B. Replace as-path access-list 1 with the ip as-path access-list 1 permit ..300." command
- C. Replace as-path access-list 1 with the ip as-path access-list 1 permit A300\_ command.
- D. Replace as-path access-list 1 with the ip as-path access-list 1 permit A300." command

**Answer: B**

#### NEW QUESTION 174

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

**Answer: C**

#### NEW QUESTION 179

- (Exam Topic 2)

Refer to the exhibit.

```
Router# show ip route
```

```
2.0.0.0/24 is subnetted, 1 subnets
C    2.2.2.0 is directly connected, Ethernet0/0
C    3.0.0.0/8 is directly connected, Serial1/0
O E2 200.1.1.0/24 [110/20] via 2.2.2.2, 00:16:17, Ethernet0/0
O E1 200.2.2.0/24 [110/104] via 2.2.2.2, 00:00:41, Ethernet0/0
131.108.0.0/24 is subnetted, 2 subnets
O    131.108.2.0 [110/74] via 2.2.2.2, 00:16:17, Ethernet0/0
O IA  131.108.1.0 [110/84] via 2.2.2.2, 00:16:17, Ethernet0/0
```

```
Router# show ip bgp
```

Network	Next Hop	Metric	LocPrf	Weight	Path
*> 2.2.2.0/24	0.0.0.0	0		32768	?
*> 131.108.1.0/24	2.2.2.2	84		32768	?
*> 131.108.2.0/24	2.2.2.2	74		32768	?

The OSPF routing protocol is redistributed into the BGP routing protocol, but not all the OSPF routes are distributed into BGP Which action resolves the issue?

- A. Include the word external in the redistribute command
- B. Use a route-map command to redistribute OSPF external routes defined in an access list
- C. Include the word internal external in the redistribute command
- D. Use a route-map command to redistribute OSPF external routes defined in a prefix list.



Answer: C

#### Explanation:

If you configure the redistribution of OSPF into BGP without keywords, only OSPF intra-area and inter-area routes are redistributed into BGP, by default. You can use the internal keyword along with the redistribute command under router bgp to redistribute OSPF intra- and inter-area routes.

Use the external keyword along with the redistribute command under router bgp to redistribute OSPF external routes into BGP.

-> In order to redistribute all OSPF routes into BGP, we must use both internal and external keywords. The full command would be (suppose we are using OSPF 1):

redistribute ospf 1 match internal external

Note: The configuration shows match internal external 1 external 2. This is normal because OSPF automatically appends "external 1 external 2" in the configuration. In other words, keyword external = external 1 external 2. External 1 = O E1 and External 2 = O E2. Reference:

<https://www.cisco.com/c/en/us/support/docs/ip/border-gateway-protocol-bgp/5242-bgp-ospf-redistribution.html>

#### NEW QUESTION 183

- (Exam Topic 3)



Refer to the exhibit. The traffic from spoke to hub is dropping. The operations team observes:

- > R2-R3 link is down due to the fiber cut.
- > R2 and R5 receive traffic from R1 in AS 65101.
- > R3 and R5 receive traffic from R4 in AS 65201.

Which configuration resolves the issue?

A)

```
R6(config)#router bgp 65101
R6(config-router)#no neighbor 10.0.0.17 update-source Loopback0
```

B)

```
R5(config)#router bgp 65101
R5(config-router)#no neighbor 10.0.0.18 update-source Loopback0
```

C)

```
R6(config)#router bgp 65201
R6(config-router)#neighbor 10.10.10.5 remote-as 65101
R6(config-router)#neighbor 10.10.10.5 update-source Loopback0
R6(config-router)#neighbor 10.10.10.5 ebgp-multihop 3
```

D)

```
R5(config)#router bgp 65101
R5(config-router)#neighbor 10.10.10.6 remote-as 65201
R5(config-router)#neighbor 10.10.10.6 update-source Loopback0
R5(config-router)#neighbor 10.10.10.6 ebgp-multihop 3
```

A. Option A

B. Option B

C. Option C

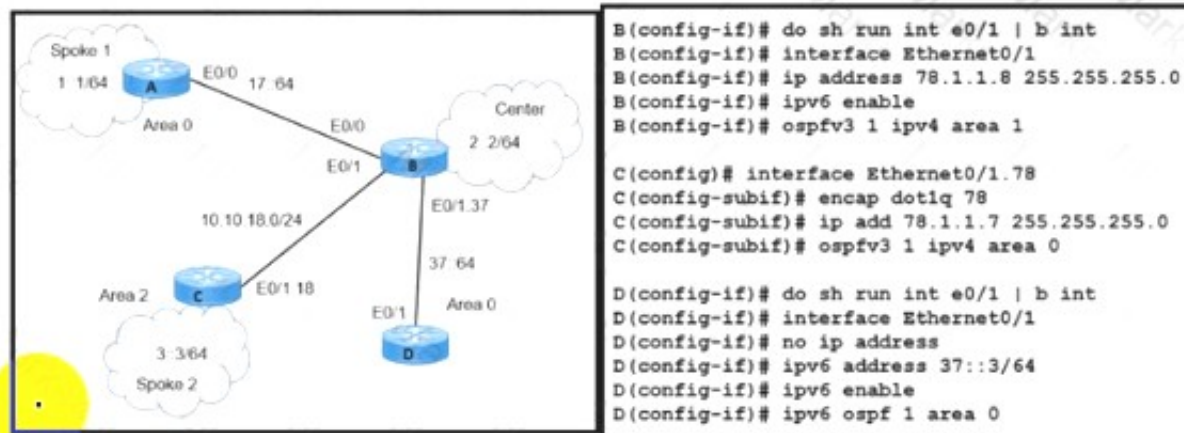
D. Option D

Answer: C

#### NEW QUESTION 185

- (Exam Topic 3)





Refer to the exhibit. A network engineer receives a report that Spoke 1 users can perform bank transactions with the server located at the Center site, but Spoke 2 users cannot. Which action resolves the issue?

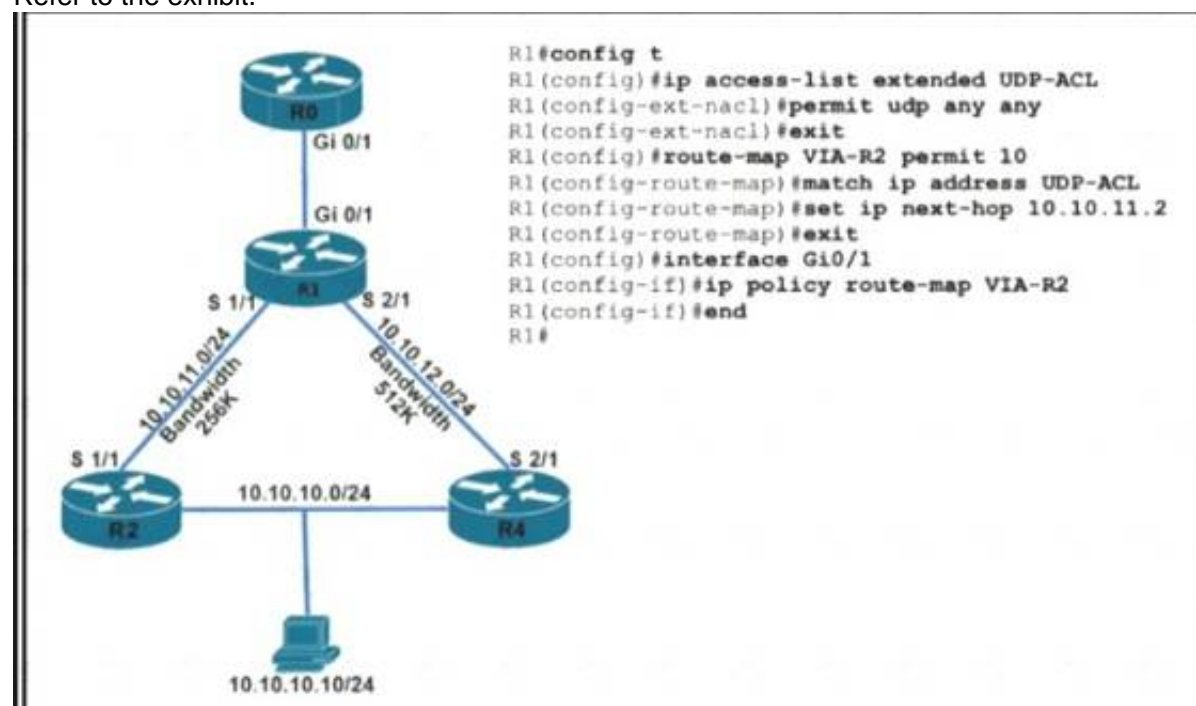
- A. Configure the Spoke 2 users IP on the router B OSPF domain
- B. Configure encapsulation dot1q 78 on the router C interface.
- C. Configure IPv6 on the routers B and C interfaces
- D. Configure OSPFv2 on the routers B and C interfaces

**Answer: C**

### NEW QUESTION 188

- (Exam Topic 3)

Refer to the exhibit.



TCP traffic should be reaching host 10.10.10.10/24 via R2. Which action resolves the issue?

- A. TCP traffic will reach the destination via R2 without any changes
- B. Add a permit 20 statement in the route map to allow TCP traffic
- C. Allow TCP in the access list with no changes to the route map
- D. Set IP next-hop to 10.10.12.2 under the route-map permit 10 to allow TCP traffic.

**Answer: C**

### NEW QUESTION 192

- (Exam Topic 3)

An engineer configured VRF-Lite on a router for VRF blue and VRF red. OSPF must be enabled on each VRF to peer to a directly connected router in each VRF. Which configuration forms OSPF neighbors over the network 10.10.10.0/28 for VRF blue and 192.168.0.0/30 for VRF red?

- ☐ router ospf 1 vrf blue  
network 10.10.10.0 0.0.0.15 area 0  
router ospf 2 vrf red  
network 192.168.0.0 0.0.0.3 area 0
- ☐ router ospf 1 vrf blue  
network 10.10.10.0 0.0.0.240 area 0  
router ospf 2 vrf red  
network 192.168.0.0 0.0.0.252 area 0
- ☐ router ospf 1 vrf blue  
network 10.10.10.0 0.0.0.252 area 0  
router ospf 2 vrf red  
network 192.168.0.0 0.0.0.240 area 0
- ☐ router ospf 1 vrf blue  
network 10.10.10.0 0.0.0.3 area 0  
router ospf 2 vrf red  
network 192.168.0.0 0.0.0.15 area 0

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

**Answer:** A

#### NEW QUESTION 196

- (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.

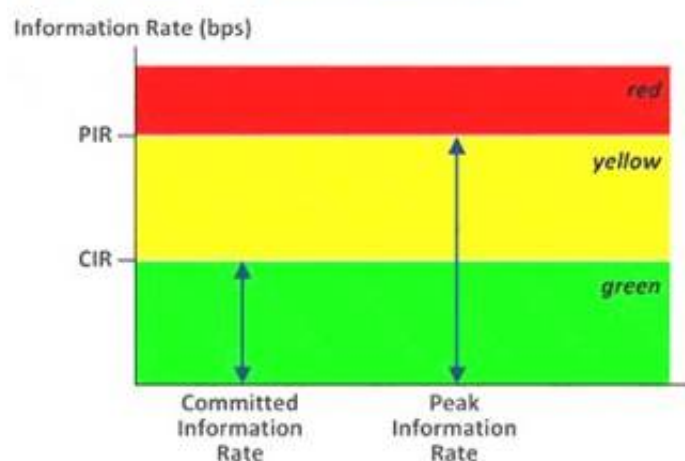
**Answer:** D

#### Explanation:

CIR (Committed Information Rate) is the minimum guaranteed traffic delivered in the network.

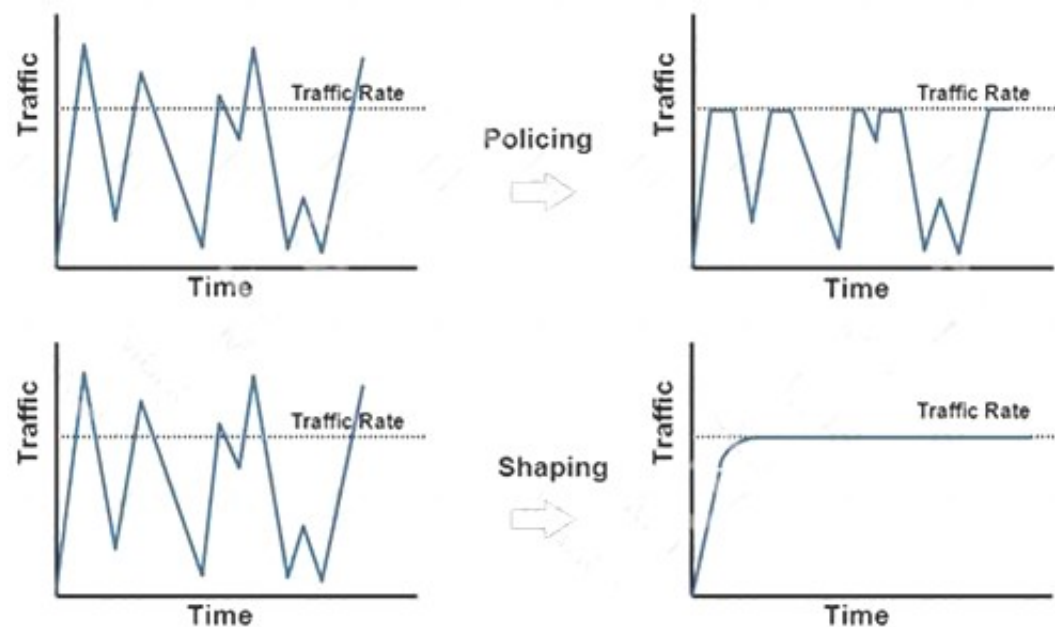
PIR (Peak Information Rate) is the top bandwidth point of allowed traffic in a non busy times without any guarantee.

#### 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 199

- (Exam Topic 3)

```
ip sla 1
 icmp-echo 8.8.8.8
 threshold 1000
 timeout 2000
 frequency 5
ip sla schedule 1 life forever start-time now
!
track 1 ip sla 1
!
ip route 0.0.0.0 0.0.0.0 Ethernet0/0 203.0.113.1 name ISP1 track 1
ip route 0.0.0.0 0.0.0.0 Ethernet0/1 198.51.100.1 2 name ISP2
```

Refer to the exhibit. After recovering from a power failure. Ethernet0/1 stayed down while Ethernet0/0 returned to the up/up state The default route through ISP1 was not reinstated in the routing table until Ethernet0/1 also came up Which action resolves the issue?

- A. Reference the track object 1 in both static default routes
- B. Remove the references to the interface names from both static default routes
- C. Configure the default route through ISP1 with a higher administrative distance than 2.
- D. Add a static route to the 8.8.8.8/32 destination through the next hop 203.0.113.1

**Answer: D**

### NEW QUESTION 202

- (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?

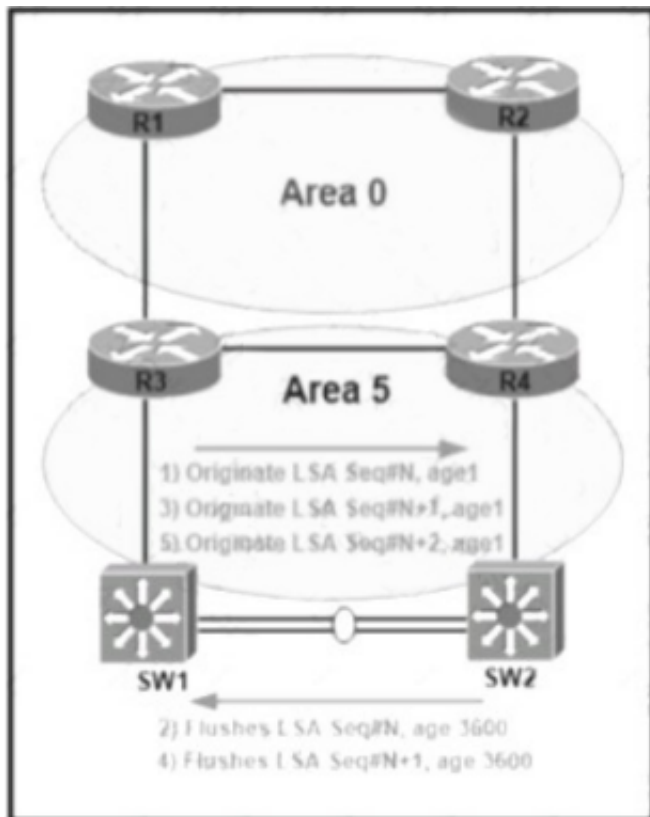
- A. router ospf 1 vrf CCNP interface Ethernet1 ip ospf 1 area 0.0.0.0 interface Ethernet2 ip ospf 1 area 0.0.0.0
- B. router ospf 1 interface Ethernet1 ip ospf 1 area 0.0.0.0 interface Ethernet2 ip ospf 1 area 0.0.0.0
- C. router ospf 1 vrf CCNP network 10.1.1.1 0.0.0.0 area 0 network 10.2.2.2 0.0.0.0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

**Answer: C**

### NEW QUESTION 203

- (Exam Topic 3)

Refer to the exhibit.



An error message "an OSPF-4-FLOOD\_WAR" is received on SW2 from SW1. SW2 is repeatedly receiving its own link-state advertisement and flushes it from the network. Which action resolves the issue?

- A. Change area 5 to a normal area from a nonstub area
- B. Resolve different subnet mask issue on the link
- C. Configure Layer 3 port channel on interfaces between switches
- D. Resolve duplicate IP address issue in the network

**Answer: D**

#### NEW QUESTION 207

- (Exam Topic 3)

An engineer received a ticket about a router that has reloaded. The monitoring system graphs show different traffic patterns between logical and physical interfaces when the router is rebooted. Which action resolves the issue?

- A. Configure the snmp ifindex persist command globally.
- B. Clear the logical interfaces with snmp ifindex clear command
- C. Configure the snmp ifindex persist command on the physical interfaces.
- D. Trigger a new snmpwalk from the monitoring system to synchronize interface OIDs

**Answer: A**

#### NEW QUESTION 208

- (Exam Topic 3)

A network administrator added a new spoke site with dynamic IP on the DMVPN network. Which configuration command passes traffic on the DMVPN tunnel from the spoke router?

- A. ip nhrp registration ignore
- B. ip nhrp registration no-registration
- C. ip nhrp registration dynamic
- D. ip nhrp registration no-unique

**Answer: D**

#### NEW QUESTION 209

- (Exam Topic 3)

Refer to the exhibit.

```
CPE(config)# lin c 0
CPE(config-line)# no exec
CPE(config-line)# end
CPE#
*Jan 31 23:07:22.655: %SYS-5-CONFIG_I: Configured from console
by console
CPE# wr
Building configuration...
[OK]
CPE# exit

CPE con0 is now available

Press RETURN to get started.

! Console stopped responding at this moment !
```

An administrator is attempting to disable the automatic logout after a period of inactivity. After logging out the console stopped responding to all keyword inputs. Remote access through SSH still work resolves the issue?



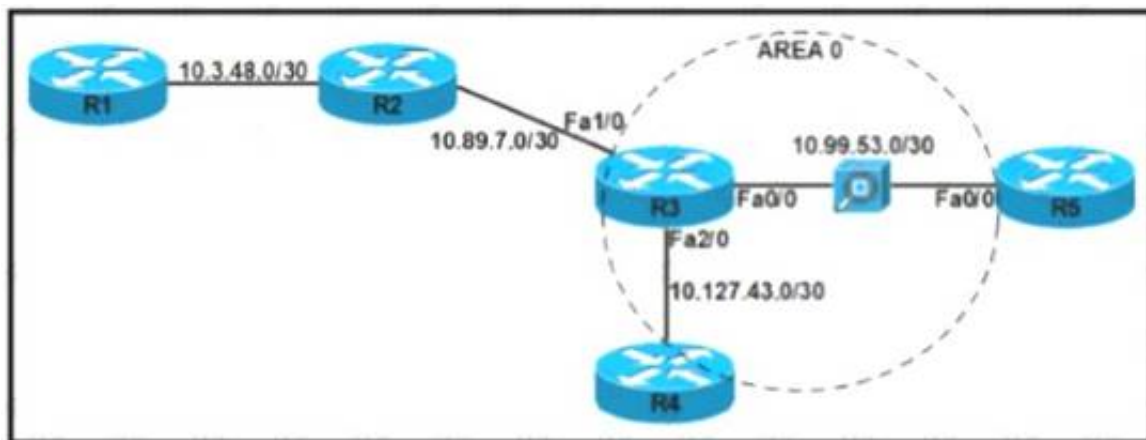
- A. Configure the exec command on line con 0.
- B. Configure the absolute-timeout command on line con 0.
- C. Configure the default exec-timeout command on line con 0.
- D. Configure the no exec-timeout command on line con 0.

**Answer: D**

#### NEW QUESTION 213

- (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 88 host 10.99.53.2 host 10.99.53.1
access-list 122 deny 88 any any

```

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

**Answer: C**

#### NEW QUESTION 216

- (Exam Topic 3)

```

R1#show running-config | begin router eigrp
router eigrp 100
network 172.16.250.0 0.0.0.3
redistribute ospf 10 metric 1 1 1 1
!
router ospf 10
redistribute eigrp 100 metric 100 subnets route-map CCNP
network 172.16.1.0 0.0.0.3 area 0
!
ip forward-protocol nd
!
no ip http server
no ip http secure-server
!
route-map CCNP deny 10
match route-type local
!
access-list 10 permit 172.16.2.32
!

R3#sh ip route

Gateway of last resort is not set

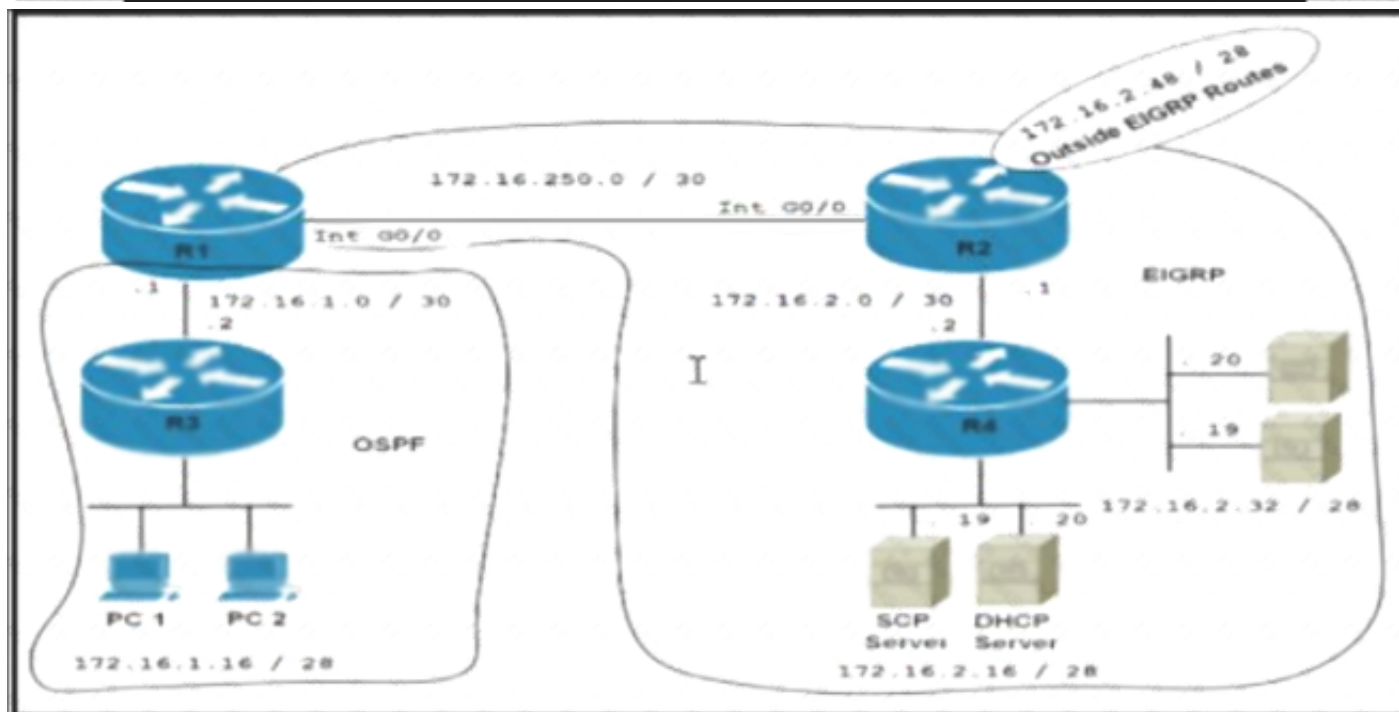
172.16.0.0/16 is variably subnetted, 7 subnets, 3 masks
C    172.16.1.0/30 is directly connected, GigabitEthernet0/1
L    172.16.1.2/32 is directly connected, GigabitEthernet0/1
C    172.16.1.16/28 is directly connected, Loopback1
L    172.16.1.17/32 is directly connected, Loopback1
C    172.16.1.32/28 is directly connected, Loopback2
L    172.16.1.33/32 is directly connected, Loopback2
S    172.16.1.48/28 [1/0] via 172.16.1.18
R3#

```

```

R4#show running-config | begin router eigrp
router eigrp 100
network 172.16.2.0 0.0.0.3
network 172.16.2.16 0.0.0.15
network 172.16.2.32 0.0.0.15
redistribute static metric 100 1 1 1 route-map CCNP
!
ip forward-protocol nd
!
no ip http server
no ip http secure-server
ip route 172.16.2.48 255.255.255.240 172.16.2.1
!
route-map CCNP permit 10
match ip address 10
set tag 200
!
access-list 10 permit 172.16.2.48 0.0.0.15
!

```



Refer to the exhibit. Which configuration resolves the route filtering issue on R1 to redistribute all the routes except 172.16.2.48/28?

A)

```

R1(config)#route-map CCNP deny 10
R1(config-route-map)#no match route-type local
R1(config-route-map)#match route-type external type-1
R1(config)#route-map CCNP permit 20

```

B)



```
R1(config)#route-map CCNP deny 10
R1(config-route-map)#no match route-type local
R1(config-route-map)# match route-type level-2
R1(config)#route-map CCNP permit 20
```

C)

```
R1(config)#route-map CCNP deny 10
R1(config-route-map)#no match route-type local
R1(config-route-map)#match route-type external
R1(config)#route-map CCNP permit 20
```

D)

```
R1(config)#route-map CCNP deny 10
R1(config-route-map)#no match route-type local
R1(config-route-map)#match route-type external type-2
R1(config)#route-map CCNP permit 20
```

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

**Answer: D**

#### NEW QUESTION 217

- (Exam Topic 3)

CPE#	show snmp mib ifmib ifindex detail					
Description	ifIndex	Active	Persistent	Saved	TrapStatus	
Loopback1	8	yes	disabled	no	enabled	
GigabitEthernet1	1	yes	disabled	no	enabled	
GigabitEthernet3	3	yes	disabled	no	enabled	
GigabitEthernet3.123	10	yes	disabled	no	disabled	
VoIP-Null0	5	yes	disabled	no	enabled	
Loopback0	7	yes	disabled	no	enabled	
Null0	6	yes	disabled	no	enabled	
Loopback2	9	yes	disabled	no	enabled	
GigabitEthernet4	4	yes	disabled	no	enabled	
GigabitEthernet2	2	yes	disabled	no	enabled	

Refer to the exhibit. After reloading the router an administrator discovered that the interface utilization graphs displayed inconsistencies with their previous history in the NMS. Which action prevents this issue from occurring after another router reload in the future?

- A. Rediscover all the router interfaces through SNMP after the router is reloaded
- B. Save the router configuration to startup-config before reloading the router
- C. Configure SNMP to use static OIDs referring to individual router interfaces
- D. Configure SNMP interface index persistence on the router

**Answer: D**

#### NEW QUESTION 220

- (Exam Topic 3)

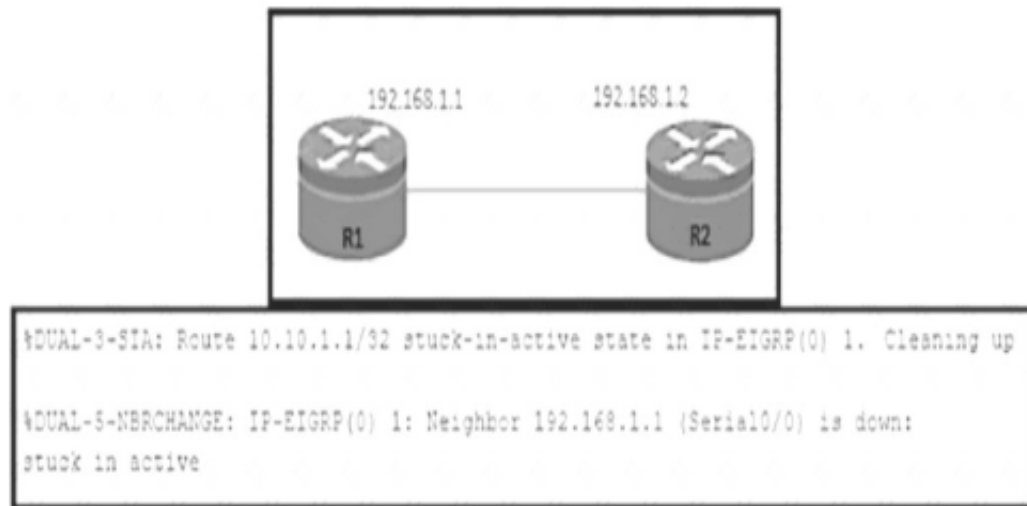
An engineer failed to run diagnostic commands on devices using Cisco DNA Center. Which action in Cisco DNA Center resolves the issue?

- A. Enable Command Runner
- B. Enable APIs
- C. Enable CDP
- D. Enable Secure Shell

**Answer: A**

#### NEW QUESTION 224

- (Exam Topic 3)



Refer to the exhibit. An engineer notices a connectivity problem between routers R1 and R2. The frequency of this problem is high during peak business hours. Which action resolves the issue?

- A. Increase the MTU on the interfaces that connect R1 and R2.
- B. Increase the available bandwidth between R1 and R2.
- C. Decrease the EIGRP keepalive and hold down timers on R1 and R2.
- D. Set static EIGRP neighborship between R1 and R2.

**Answer: B**

#### NEW QUESTION 228

- (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. Eny member link on a link aggregation group must run BFD
- E. Each member link of a link aggregation group must run BFD.

**Answer: CE**

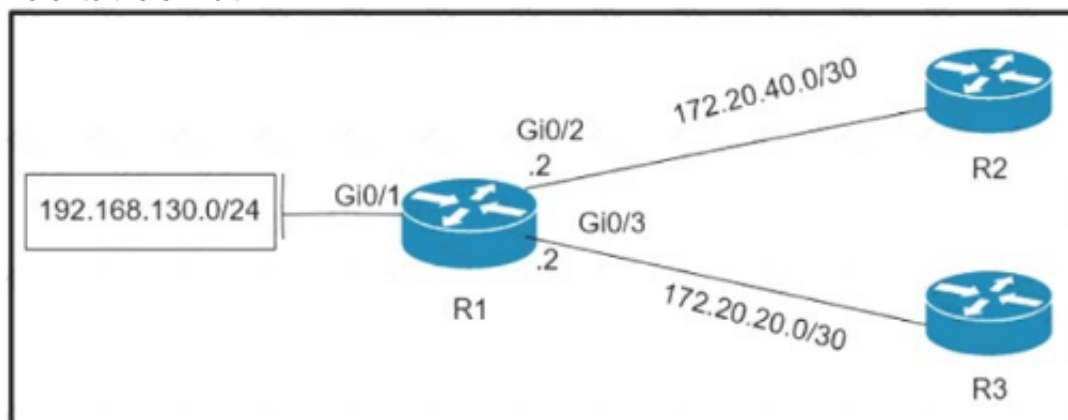
**Explanation:**

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

#### NEW QUESTION 231

- (Exam Topic 3)

Refer to the exhibit.



Which policy configuration on R1 forwards any traffic that is sourced from the 192 168 130 0'24 network to R2?

A)

```
access-list 1 permit 192.168.130.0 0.0.0.255
!
interface Gi0/2
ip policy route-map test
!
route-map test permit 10
match ip address 1
set ip next-hop 172.20.20.1
```

B)

```
access-list 1 permit 192.168.130.0 0.0.0.255
!
interface Gi0/1
ip policy route-map test
!
route-map test permit 10
match ip address 1
set ip next-hop 172.20.40.1
```

C)



```
access-list 1 permit 192.168.130.0 0.0.0.255
!
interface Gi0/2
ip policy route-map test
!
route-map test permit 10
match ip address 1
set ip next-hop 172.20.20.2
```

D)

```
access-list 1 permit 192.168.130.0 0.0.0.255
!
interface Gi0/1
ip policy route map test
!
route-map test permit 10
match ip address 1
set ip next-hop 172.20.40.2
```

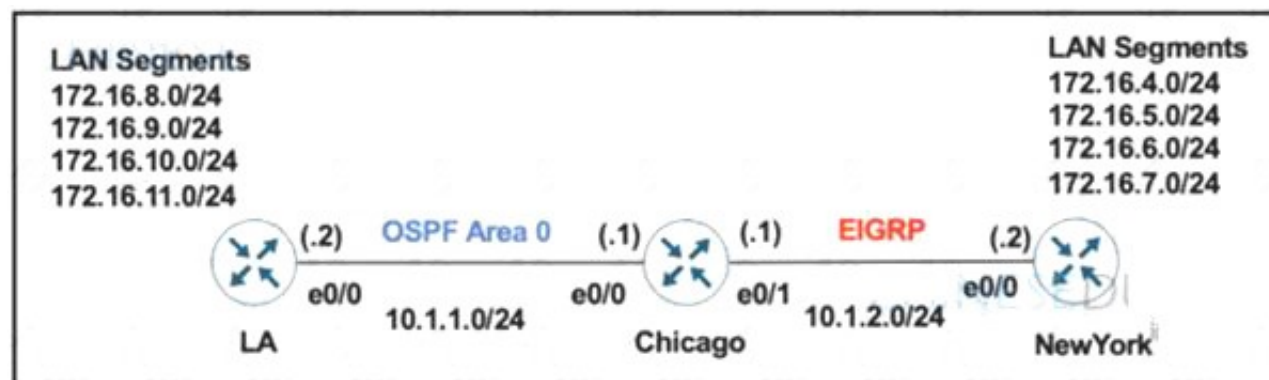
- A. Option A
- B. Option B
- C. Option C
- D. Option D

**Answer: B**

#### NEW QUESTION 236

- (Exam Topic 3)

Refer to the exhibit.



The network administrator configured the Chicago router to mutually redistribute the LA and NewYork routes with OSPF routes to be summarized as a single route in EIGRP using the longest summary mask:

```
router eigrp 100
 redistribute ospf 1 metric 10 10 10 10 10
router ospf 1
 redistribute eigrp 100 subnets
!
interface E 0/0
 ip summary-address eigrp 100 172.16.0.0 255.255.0.0
```

After the configuration, the New York router receives all the specific LA routes but the summary route. Which set of configurations resolves the issue on the Chicago router?

- ☒ interface E 0/1  
ip summary-address eigrp 100 172.16.0.0 255.255.0.0
- ☐ interface E 0/1  
ip summary-address eigrp 100 172.16.8.0 255.255.252.0
- ☐ router eigrp 100  
summary-address 172.16.8.0 255.255.252.0
- ☐ router eigrp 100  
summary-address 172.16.0.0 255.255.0.0

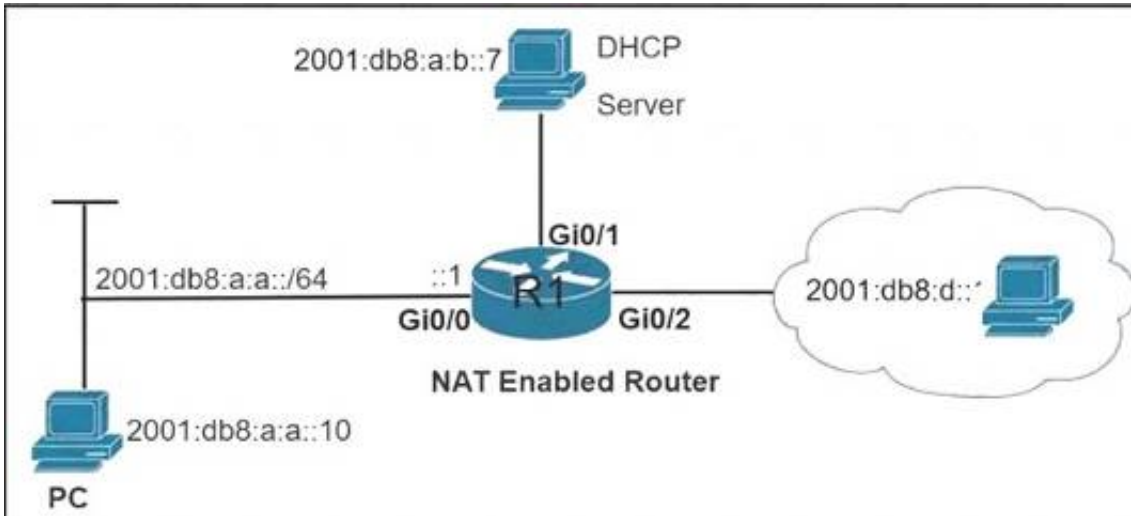
- A. Option A
- B. Option B
- C. Option C
- D. Option D

**Answer: B**

#### NEW QUESTION 239

- (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 241

- (Exam Topic 3)

Refer to the exhibit.

```

interface Tunnel0
 ip address 172.23.5.10 255.255.255.0
 no ip redirects
 ip mtu 1420
 ip nhrp authentication C@trts81
 ip nhrp map multicast 192.168.200.1
 ip nhrp map 172.23.5.1 192.168.200.1
 ip nhrp network-id 10
 ip nhrp holdtime 300
 ip nhrp shortcut
 ip ospf network broadcast
 ip ospf priority 0
 tunnel source 192.168.100.146
 tunnel mode gre multipoint
 tunnel key 100

```

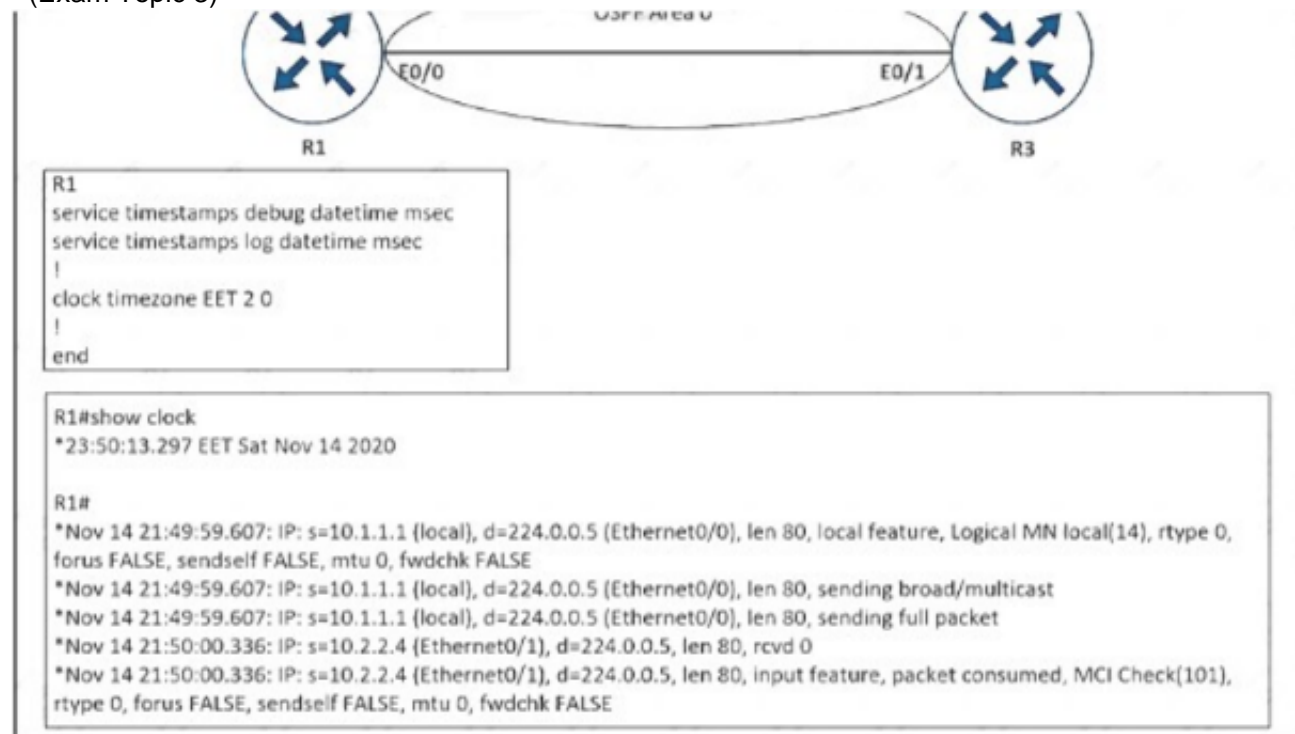
A network engineer is adding a new spoke router into an existing DMVPN Phase 3 tunnel with a hub router to provide secure communication between sites Which additional configuration must the engineer apply to enable the tunnel to come up?

- A. ip nhrp registration no-unique
- B. ip nhrp server-only non-caching
- C. ip nhrp responder tunnel
- D. ip nhrpnhs 172.23.5.1

**Answer: D**

#### NEW QUESTION 245

- (Exam Topic 3)



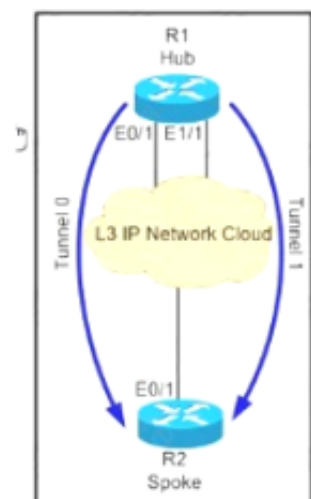
Refer to the exhibit. An engineer cannot determine the time of the problem on R1 due to a mismatch between the router local clock and logs. Which command synchronizes the time between new log entries and the local clock on R1?

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

**Answer: B**

#### NEW QUESTION 250

- (Exam Topic 3)



Refer to the exhibit. The hub and spoke are connected via two DMVPN tunnel interfaces. The NHRP is configured and the tunnels are detected on the hub and the spoke. Which configuration command adds an IPsec profile on both tunnel interfaces to encrypt traffic?

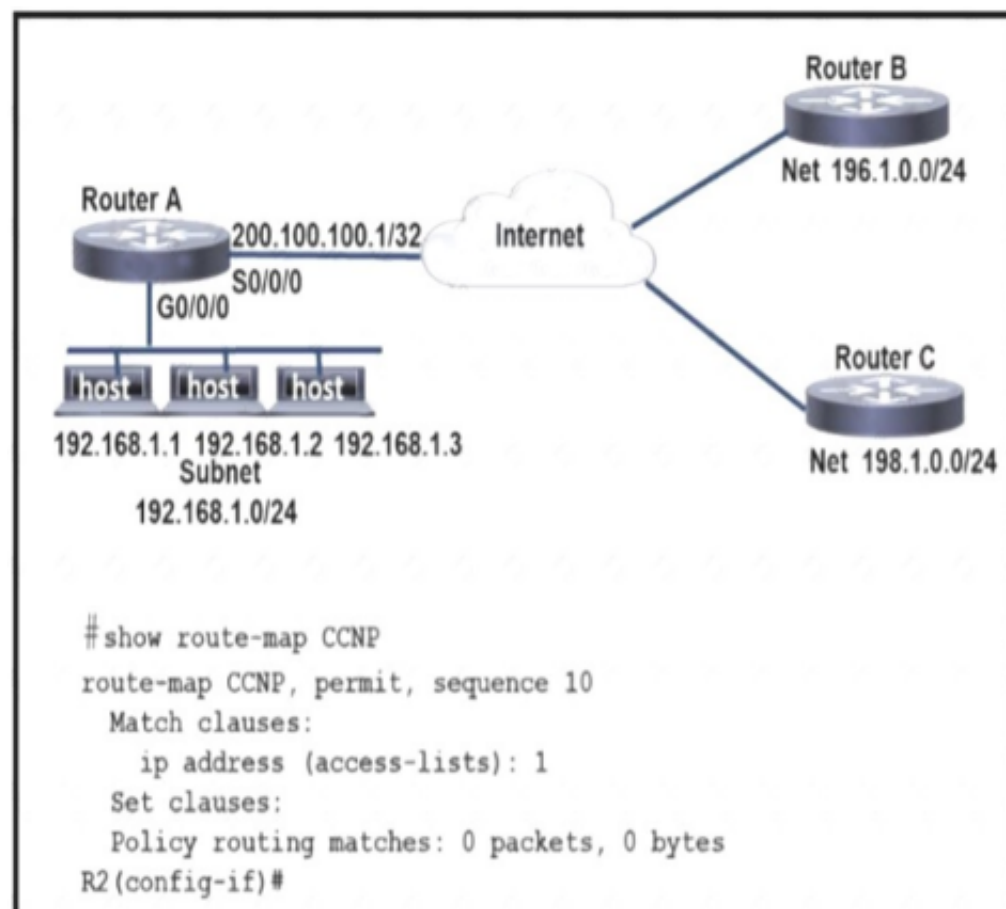
- A. tunnel protection ipsec profile DMVPN multipoint
- B. tunnel protection ipsec profile DMVPN tunnel1
- C. tunnel protection ipsec profile DMVPN shared
- D. tunnel protection ipsec profile DMVPN unique

**Answer: C**

#### NEW QUESTION 255

- (Exam Topic 3)





Refer to the exhibit. An engineer configures router A to mark all inside to outside traffic from network 192.168.1.0, except from host 192.168.1.1, with critical IP precedence. The policy did not work as expected. Which configuration resolves the issue?

A)

```
RouterA(config)#access-list 1 deny host 192.168.1.1
RouterA(config)#route-map CCNP permit 10
RouterA(config)#match ip address 1
RouterA(config)#set ip precedence critical
RouterA(config)#route-map CCNP permit 20
RouterA(config)# interface g0/0/0
RouterA(config-if)#ip address 192.168.1.4 255.255.255.0
RouterA(config-if)#ip policy route-map CCNP
```

B)

```
RouterA(config)#access-list 1 deny host 192.168.1.1
RouterA(config)#access-list 1 permit any any
RouterA(config)#route-map CCNP deny 10
RouterA(config)#match ip address 1
RouterA(config)#set ip precedence critical
RouterA(config)#route-map CCNP permit 20
RouterA(config)# interface g0/0/0
RouterA(config-if)#ip address 192.168.1.4 255.255.255.0
RouterA(config-if)#ip policy route-map CCNP
```

C)

```
RouterA(config)#access-list 1 deny host 192.168.1.1
RouterA(config)#access-list 1 permit any any
RouterA(config)#route-map CCNP permit 10
RouterA(config)#match ip address 1
RouterA(config)#set ip precedence critical
RouterA(config)#route-map CCNP permit 20
RouterA(config)#set ip precedence critical
RouterA(config)# interface g0/0/0
RouterA(config-if)#ip address 192.168.1.4 255.255.255.0
RouterA(config-if)#ip policy route-map CCNP
```

D)

```
RouterA(config)#access-list 1 deny host 192.168.1.1
RouterA(config)#access-list 1 permit any any
RouterA(config)#route-map CCNP permit 10
RouterA(config)#match ip address 1
RouterA(config)#set ip precedence critical
RouterA(config)# interface g0/0/0
RouterA(config-if)#ip address 192.168.1.4 255.255.255.0
RouterA(config-if)#ip policy route-map CCNP
```

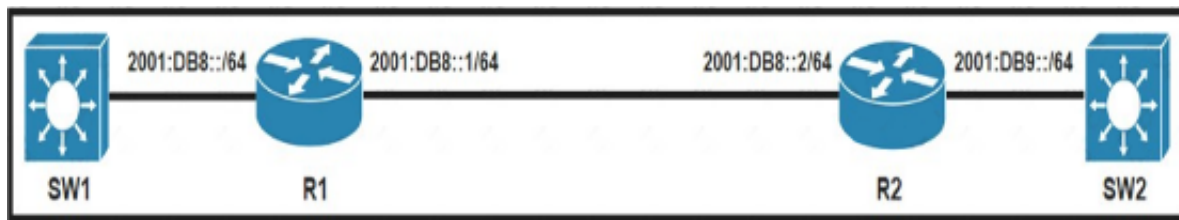
- A. Option A
- B. Option B
- C. Option C
- D. Option D

Answer: A

NEW QUESTION 259



- (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 263

- (Exam Topic 3)  
Refer to the exhibit.

```
interface loopback0
 ip address 4.4.4.4 255.255.255.0
!
interface FastEthernet1/0
 Description *** WAN link ***
 ip address 10.0.0.1 255.255.255.0
!
interface FastEthernet1/1
 Description *** LAN Network ***
 ip address 192.168.1.1 255.255.255.0
!
!
router ospf 1
 router-id 4.4.4.4
 log-adjacency-changes
 network 4.4.4.4 0.0.0.0 area 0
 network 10.0.0.1 0.0.0.0 area 0
 network 192.168.1.1 0.0.0.0 area 10
!
```

Which set of commands restore reachability to loopback0?

A)

```
interface loopback0
 ip address 4.4.4.4 255.255.255.0
 ip ospf network point-to-point
```

B)

```
interface loopback0
 ip address 4.4.4.4 255.255.255.0
 ip ospf network broadcast
```

C)

```
interface loopback0
 ip address 4.4.4.4 255.255.255.0
 ip ospf interface area 10
```

D)

```
interface loopback0
 ip address 4.4.4.4 255.255.255.0
 ip ospf interface type network
```

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

**Answer: A**

#### Explanation:

We tested this config in GNS3 (except the LAN interface) but R1 loopback0 was advertised normally on R2 and R2 could reach this loopback0.

```
R1#sh run | b. interface
interface Loopback0
 ip address 4.4.4.4 255.255.255.0
!
interface FastEthernet0/0
 ip address 10.0.0.1 255.255.255.0
 duplex auto
 speed auto
!
router ospf 1
 log-adjacency-changes
 network 4.4.4.4 0.0.0.0 area 0
 network 10.0.0.1 0.0.0.0 area 0
!
```

```
R2#sh ip route ospf
      4.0.0.0/32 is subnetted, 1 subnets
O       4.4.4.4 [110/2] via 10.0.0.1, 00:41:03, FastEthernet0/0
R2#ping 4.4.4.4

Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 4.4.4.4, timeout is 2 seconds:
!!!!
Success rate is 100 percent (5/5), round-trip min/avg/max = 24/34/56 ms
```

Note: Although the configured loopback address is 4.4.4.4/24 but by default OSPF will advertise this route to loopback0 as 4.4.4.4/32 (most specific route to that loopback). In order to override this, we have to change the network type to point-to-point. After this OSPF will advertise the address to loopback as 4.4.4.0/24.

#### NEW QUESTION 267

- (Exam Topic 3)

A network administrator performed a Compact Flash Memory upgrade on a Cisco Catalyst 6509 Switch. Everything is functioning normally except SNMP, which was configured to monitor the bandwidth of key interfaces but the interface indexes are changed. Which global configuration resolves the issue?

- A. snmp-server ifindex permanent
- B. snmp ifindex permanent
- C. snmp-server ifindex persist
- D. snmp ifindex persist

**Answer: C**

#### Explanation:

The SNMP ifIndex persistence feature provides an interface index (ifIndex) value that is retained and used when the router reboots. The ifIndex value is a unique identifying number associated with a physical or logical interface. In the following example, SNMP ifIndex persistence is enabled for all interfaces:

```
router(config)# snmp-server ifindex persist
```

#### NEW QUESTION 271

- (Exam Topic 3)

Which OSI model is used to insert an MPLS label?

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

**Answer: D**

#### NEW QUESTION 273

- (Exam Topic 3)

Refer to the exhibit.

```
Dallas_Router:

interface GigabitEthernet0/0/0.364
description Guest_Wifi_10.66.46.0/23
encapsulation dot1Q 364
ip address 10.66.46.1 255.255.254.0
ip helper-address 10.192.104.212
ip helper-address 10.191.103.140
ip access-group GUEST-ACCESS in
ip access-group GUEST-ACCESS-OUT out
no ip redirects
no ip unreachable
no ip proxy-arp

ip access-list extended GUEST-ACCESS
remark Internet Access Only
permit udp any any eq bootps
permit udp any any eq bootpc
deny ip any 10.0.0.0 0.255.255.255
deny ip any 172.16.0.0 0.15.255.255
deny ip any 192.168.0.0 0.0.255.255
deny ip any 224.0.0.0 31.255.255.255
deny ip any 169.254.0.0 0.0.255.255
deny ip any 127.0.0.0 0.255.255.255
deny ip any 192.0.2.0 0.0.0.255
deny ip any host 0.0.0.0
permit ip 10.66.42.0 0.0.0.255 any
permit ip 10.66.46.0 0.0.0.255 any
!

ip access-list extended GUEST-ACCESS-OUT
remark Used to block inbound traffic to Guest Networks
permit udp any any eq bootps
permit udp any any eq bootpc
permit udp any any eq domain
permit udp any any
permit icmp any any
permit tcp host 10.192.103.124 eq 15871 any
permit tcp any any established
deny ip any 10.0.0.0 0.255.255.255
deny ip any 172.16.0.0 0.15.255.255
deny ip any 192.168.0.0 0.0.255.255
deny ip any 224.0.0.0 31.255.255.255
deny ip any 169.254.0.0 0.0.255.255
deny ip any 127.0.0.0 0.255.255.255
deny ip any 192.0.2.0 0.0.0.255
deny ip any host 0.0.0.0
```

After a new regional office is set up, not all guests can access the internet via guest WiFi. Clients are getting the correct IP address from guest Wi-Fi VLAN 364. Which action resolves the issue?

- A. Allow 10.66.46.0/23 in the outbound ACL
- B. Allow DNS traffic through the outbound ACL
- C. Allow DNS traffic through the inbound ACL
- D. Allow 10.66.46.0/23 in the inbound ACL

**Answer:** C

#### NEW QUESTION 275

- (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 279

- (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: 0000000902000000C025808:



```
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 284

- (Exam Topic 3)

The network administrator configured CoPP so that all routing protocol traffic toward the router CPU is limited to 1 mbps. All traffic that exceeds this limit must be dropped. The router is running BGP and OSPF Management traffic for Telnet and SSH must be limited to 500kbps.

access-list 100 permit tcp any any eq 179 access-list 100 permit tcp any any range 22 23 access-list 100 permit ospf any any

```
!
class-map CM-ROUTING match access-group 100 class-map CM-MGMT match access-group 100
!
```

```
policy-map PM-COPP class CM-ROUTING
police 1000000 conform-action transmit class CM-MGMT
police 500000 conform-action transmit
!
```

control-plane

service-policy output PM-COPP

No traffic is filtering through CoPP, which is resulting in high CPU utilization, which configuration resolves the issue ?

- A. 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
- B. control-plane no service-policy output PM-COPP service-policy input PM-COPP
- C. 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
- D. 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

**Answer: D**

#### NEW QUESTION 288

- (Exam Topic 3)

How is a preshared key "Test" for all the remote VPN routers configured in a DMVPN using GRE over IPsec set up?

- A. authentication pre-share Test address 0.0.0.0 0.0.0.0
- B. set pre-share Test address 0.0.0.0 0.0.0.0
- C. crypto ipsec key Test address 0.0.0.0 0.0.0.0
- D. crypto isakmp key Test address 0.0.0.0 0.0.0.0

**Answer: D**

#### NEW QUESTION 291

- (Exam Topic 3)

Refer to the exhibit.

```
R1#sh ip route
Codes: L - local, C - connected, S - static, R - RIP, M - mobile, B - BGP
       D - EIGRP, EX - EIGRP external, O - OSPF, IA - OSPF inter area
       N1 - OSPF NSSA external type 1, N2 - OSPF NSSA external type 2
       E1 - OSPF external type 1, E2 - OSPF external type 2
       i - IS-IS, su - IS-IS summary, L1 - IS-IS level-1, L2 - IS-IS level-2
       ia - IS-IS inter area, * - candidate default, U - per-user static route
       o - ODR, P - periodic downloaded static route, H - NHRP, l - LISP
       a - application route
       + - replicated route, % - next hop override, p - overrides from PfR

Gateway of last resort is not set

D    10.0.0.0/8 [90/409600] via 172.16.1.200, 00:00:28, Ethernet0/0
    172.16.0.0/16 is variably subnetted, 2 subnets, 2 masks
C    172.16.1.0/24 is directly connected, Ethernet0/0
L    172.16.1.100/32 is directly connected, Ethernet0/0
    192.168.1.0/24 is variably subnetted, 2 subnets, 2 masks
C    192.168.1.0/24 is directly connected, Loopback0
L    192.168.1.100/32 is directly connected, Loopback0
R1#
```

The R2 loopback interface is advertised with RIP and EIGRP using default values. Which configuration changes make R1 reach the R2 loopback using RIP?

- A. R1(config)# router rip R1(config-router)# distance 90

- B. R1(config)# router rip R1(config-router)# distance 100  
C. R1(config)# router eigrp 1R1(config-router)# distance eigrp 130 120  
D. R1(config)# router eigrp 1R1(config-router)# distance eigrp 120 120

**Answer:** C

**Explanation:**

distance (AD Number u want to change to) (neighbor IP) (Wildcard Mask) (access-list number)

**NEW QUESTION 295**

- (Exam Topic 3)

```
R1#sh run | section eigrp
router eigrp 10
network 10.10.10.0 0.0.0.255
no auto-summary
neighbor 10.10.10.2 FastEthernet0/0
neighbor 10.10.10.3 FastEthernet0/0

R1#show ip eigrp neighbors
IP-EIGRP neighbors for process 10
H   Address                Interface      Hold Uptime    SRTT    RTO    Q
Seq                                     (sec)         (ms)         Cnt
Num
1   10.10.10.2              Fa0/0         10 00:01:01    42     232    0    6
0   10.10.10.3              Fa0/0         10 00:01:03    43     244    0    6
```

Refer to the exhibit The remote branch locations have a static neighbor relationship configured to R1 only R1 has successful neighbor relationships with the remote locations of R2 and R3, but the end users cannot communicate with each other. Which configuration resolves the issue'

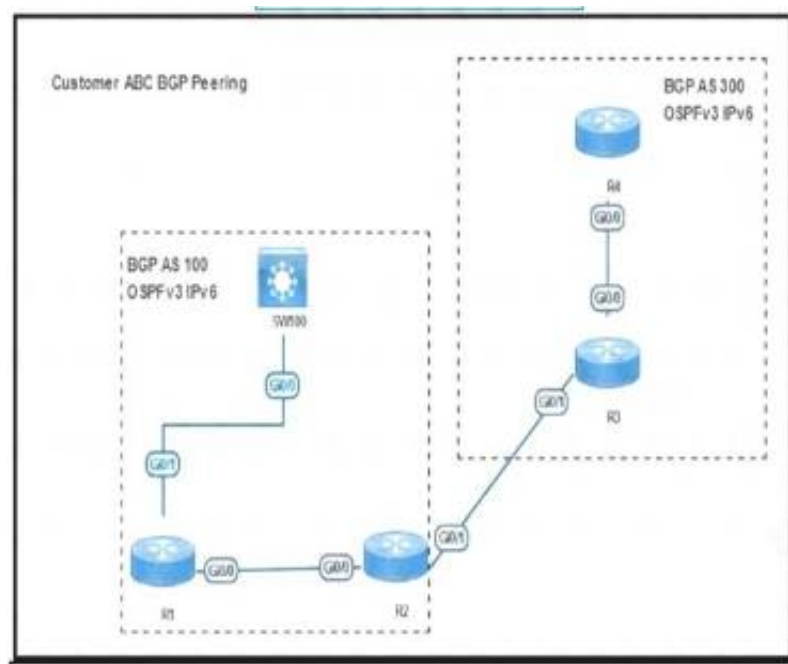
- ☐ R2  
interface FastEthernet0/0.10  
encapsulation dot1Q  
ip address 10.10.10.2 255.255.255.0
- R3  
interface FastEthernet0/0.10  
encapsulation dot1Q  
ip address 10.10.10.3 255.255.255.0
- ☐ R2  
interface FastEthernet0/0.10  
encapsulation dot1Q  
ip address 10.10.10.2 255.255.255.0
- R3  
interface FastEthernet0/0.10  
encapsulation dot1Q  
ip address 10.10.10.3 255.255.255.0
- ☐ R2  
interface FastEthernet0/0.10  
encapsulation dot1Q 10  
ip address 10.10.10.2 255.255.255.0
- R3  
interface FastEthernet0/0.10  
encapsulation dot1Q 10  
ip address 10.10.10.3 255.255.255.0
- ☐ R2 and R3  
interface FastEthernet0/0  
no ip split-horizon eigrp 10
- ☒ R1  
interface FastEthernet0/0  
no ip split-horizon eigrp 10

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

**Answer:** E

**NEW QUESTION 300**

- (Exam Topic 3)



```
SW100#sh ip bgp ipv6 uni summ
BGP router identifier 100.0.0.1, local AS number 100
BGP table version is 1, main routing table version 1

Neighbor      V      AS MsgRcvd MsgSent  TblVer  InQ OutQ Up/Down  State/PfxRcd
2001:ABC:AABB:1100:1122:1111:2222:AAA1
4            100      6      5        1    0    0 00:00:58      0

SW100#sh ip bgp ipv6 unicast
SW100#

R1#sh ip bgp ipv6 uni
BGP table version is 4, local router ID is 1.1.1.1
Network      Next Hop      Metric LocPrf Weight Path
* i  2001::4/128    2001::4        0   100    0 300 i
*>i  2002::2/128    2001::2        0   100    0 i
R1#
R1#sh ipv6 route
O  2001::2/128 [110/1]
   via FE80::5200:C3FF:FE01:E600, GigabitEthernet0/0
B  2002::2/128 [200/0]
   via 2001::2
```

Refer to the exhibit SW100 cannot receive routes from R1 Which configuration resolves the issue?

- ☐ R1
 

```
router bgp 100
address-family ipv6
neighbor 2001::2 route-reflector-client
neighbor 2001:ABC:AABB:1100:1122:1111:2222:AAA2 route-reflector-client
```
- ☐ R2
 

```
router bgp 100
address-family ipv6
neighbor 2001::2
neighbor 2001::1 next-hop-self
```
- ☐ R1
 

```
router bgp 100
address-family ipv6
neighbor 2001::2 route-reflector-client
neighbor 2001:ABC:AABB:1100:1122:1111:2222:AAA2 route-reflector-client
```
- ☐ R2
 

```
router bgp 100
address-family ipv6
neighbor 2001::2
neighbor 2001::1 as-override
```
- ☐ R1
 

```
router bgp 100
address-family ipv6
no synchronization
```
- ☐ R2
 

```
router bgp 100
address-family ipv6
no synchronization
SW100
router bgp 100
address-family ipv6
no synchronization
```
- ☐ R1
 

```
router bgp 100
address-family ipv6
redistribute connected
```
- ☐ R2
 

```
router bgp 100
address-family ipv6
redistribute connected
```

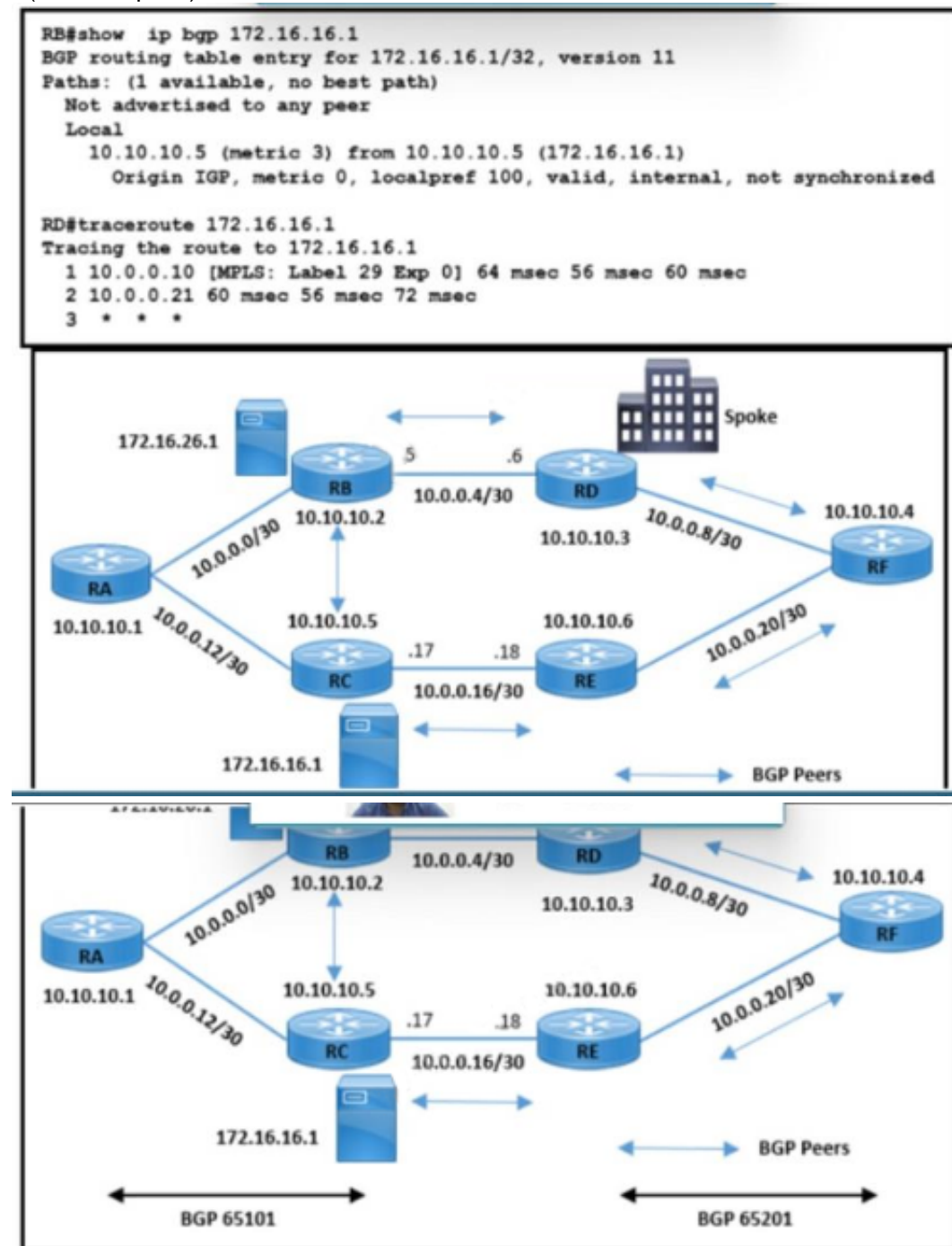
- A. Option A
- B. Option B
- C. Option C
- D. Option C

Answer: A



# NEW QUESTION 305

- (Exam Topic 3)



Refer to the exhibit A customer reported an issue with a fiber link failure between RC and RE Users connected through the spoke location face disconnection and packet drops with the primary email server (172.16.16.1) but have no issues with the backup email server (172.16.26.1). All the router loopback IPs are advertised through the OSPF protocol. Which configuration resolves the issue?

- ☐ RB(config)#router bgp 65101  
RB(config-router)#no synchronization
- ☐ RC(config)#router bgp 65101  
RC(config-router)#neighbor 10.10.10.2 next-hop-self
- ☐ RB(config)#router bgp 65101  
RB(config-router)#neighbor 10.10.10.5 next-hop-self
- ☐ RC(config)#router bgp 65101  
RC(config-router)#no synchronization

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

Answer: B

# NEW QUESTION 307

- (Exam Topic 3)

Which router translates the customer routing information into VPNv4 routes to exchange VPNv4 routes with other devices through MP-BGP?

- A. PE
- B. CE
- C. P
- D. VPNv4 RR

Answer: A

# NEW QUESTION 310

- (Exam Topic 3)



Refer to the exhibit.

```
R1# show ip ospf database self-originate

OSPF Router with ID (10.255.255.1) (Process ID 1)

Router Link States (Area 0)

Link ID      ADV Router   Age         Seq#         Checksum
Link count
10.255.255.1  10.255.255.1  4           0x800003BD  0x001AD9
3

Summary Net Link States (Area 0)

Link ID      ADV Router   Age         Seq#         Checksum
10.0.34.0    10.255.255.1  3604        0x80000380  0x00276C
10.255.255.4  10.255.255.1  3604        0x80000380  0x00762B

Type-5 AS External Link States

Link ID      ADV Router   Age         Seq#         Checksum
Tag
0.0.0.0      10.255.255.1  3604        0x800001D0  0x001CBC
0

*Feb 22 22:50:39.523: %OSPF-4-FLOOD_WAR: Process 1 flushes LSA
ID 0.0.0.0 type-5 adv-rtr 10.255.255.1 in area 0
```

After configuring OSPF in R1, some external destinations in the network became unreachable. Which action resolves the issue?

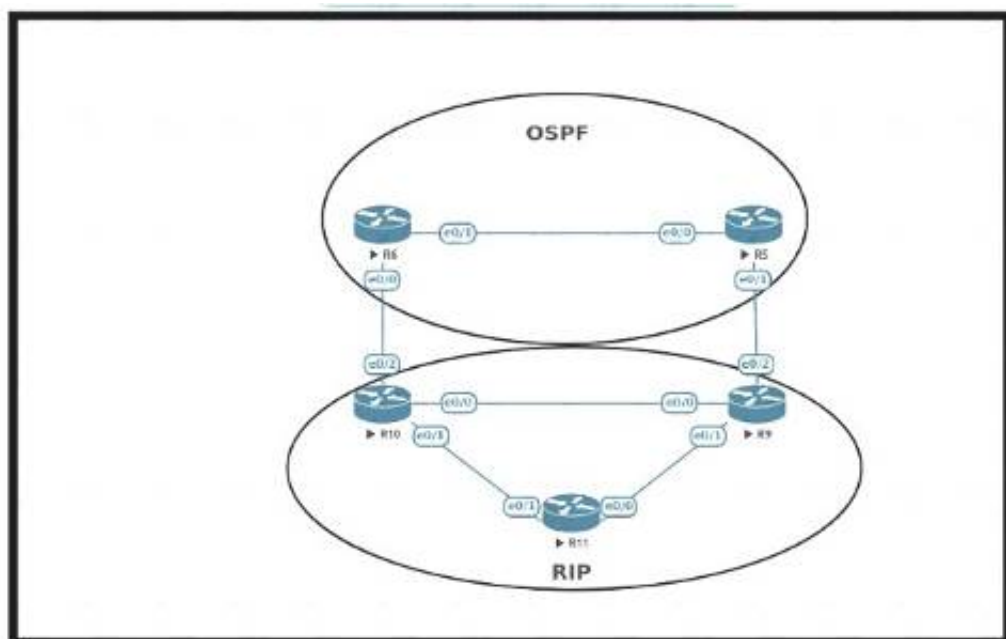
- A. Clear the OSPF process on R1 to flush stale LSAs sent by other routers.
- B. Change the R1 router ID from 10.255.255.1 to a unique value and clear the process.
- C. Increase the SPF delay interval on R1 to synchronize routes.
- D. Disconnect the router with the OSPF router ID 0.0.0.0 from the network.

**Answer: B**

#### NEW QUESTION 314

- (Exam Topic 3)

Refer to the exhibit.



An engineer must configure OSPF with R9 and R10 and configure redistribution between OSPF and RIP causing a routing loop Which configuration on R9 and R10 meets this objective?

A)

```
router ospf 1
 redistribute rip subnets tag 20
!
route-map deny_tag20 deny 10
 match tag 20
route-map deny_tag20 permit 20
!
router ospf 1
 distribute-list route-map deny_tag20 in
```

B)

```
router ospf 1
 redistribute rip subnets tag 20
!
route-map deny_tag20 permit 10
 match tag 20
route-map deny_tag20 permit 20
!
router ospf 1
 distribute-list route-map deny_tag20 in
```

C)

```
router ospf 1
 redistribute rip subnets tag 20
 !
 route-map deny_tag20 deny 10
  match tag 20
 route-map deny_tag20 deny 20
 !
router ospf 1
 distribute-list route-map deny_tag20 in
```

D)

```
router ospf 1
 redistribute rip subnets tag 20
 !
 route-map deny_tag20 deny 10
  match tag 20
 route-map deny_tag20 permit 20
 !
router rip 1
 distribute-list route-map deny_tag20 in
```

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

**Answer:** A

#### NEW QUESTION 316

- (Exam Topic 3)

An engineer configures PBR on R5 and wants to create a policy that matches traffic destined toward 10.10.10.0/24 and forward 10.1.1.1. The traffic must also have its IP precedence set to 5. All other traffic should be forward toward 10.1.1.2 and have its IP precedence set to 0. Which configuration meets the requirements?

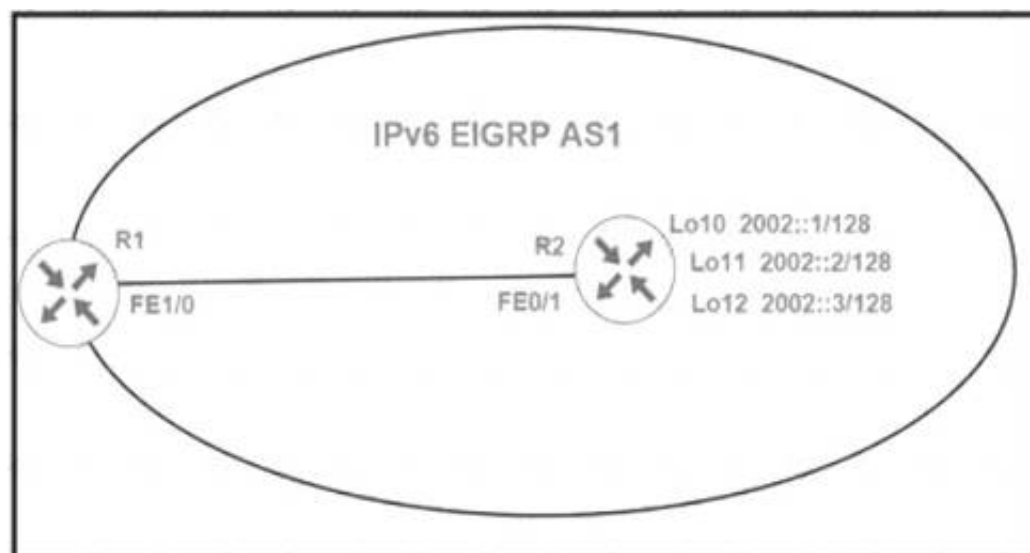
- A. access-list 1 permit 10.10.10.0 0.0.0.255 access-list 2 permit any route-map CCNP permit 10 match ip address 1 set ip next-hop 10.1.1.1 set ip precedence 5 ! route-map CCNP permit 20 match ip address 2 set ip next-hop 10.1.1.2 set ip precedence 0 ! route-map CCNP permit 30
- B. access-list 100 permit ip any 10.10.10.0 0.0.0.255 route-map CCNP permit 10 match ip address 100 set ip next-hop 10.1.1.1 set ip precedence 0 ! route-map CCNP permit 20 set ip next-hop 10.1.1.2 set ip precedence 5 ! route-map CCNP permit 30
- C. access-list 1 permit 10.10.10.0 0.0.0.255 route-map CCNP permit 10 match ip address 1 set ip next-hop 10.1.1.1 set ip precedence 5 ! route-map CCNP permit 20 set ip next-hop 10.1.1.2 set ip precedence 0
- D. access-list 100 permit ip any 10.10.10.0 0.0.0.255 route-map CCNP permit 10 match ip address 100 set ip next-hop 10.1.1.1 set ip precedence 5 ! route-map CCNP permit 20 set ip next-hop 10.1.1.2 set ip precedence 0

**Answer:** D

#### NEW QUESTION 317

- (Exam Topic 3)

```
R1#sh ipv6 route eigrp
IPv6 Routing Table - default - 1 entries
Codes: C - Connected, L - Local, S - Static, U - Per-user Static route
       B - BGP, HA - Home Agent, MR - Mobile Router, R - RIP
       I1 - ISIS L1, I2 - ISIS L2, IA - ISIS interarea, IS - ISIS summary
       D - EIGRP, EX - EIGRP external, ND - Neighbor Discovery, I - LISP
       O - OSPF Intra, OI - OSPF Inter, OE1 - OSPF ext 1, OE2 - OSPF ext 2
       ON1 - OSPF NSSA ext 1, ON2 - OSPF NSSA ext 2
R1#
R1#show ipv6 eigrp neighbors
EIGRP-IPv6 Neighbors for AS(1)
H  Address          Interface    Hold Uptime  SRTT  RTO  Q  Seq
                               (sec)       (ms)    Cnt  Num
0  Link-local address: Fa1/0      11 00:04:22 1593 5000 0 15
   FE80::C004:22FF:FE78:1
R1#
```



```
R2#show run
interface Loopback10
no ip address
ipv6 address 2002::1/128
ipv6 eigrp 1
!
interface Loopback11
no ip address
ipv6 address 2002::2/128
ipv6 eigrp 1
!
interface Loopback12
no ip address
ipv6 address 2002::3/128
ipv6 eigrp 1
!
interface FastEthernet0/1
no ip address
duplex auto
speed auto
ipv6 address autoconfig
ipv6 eigrp 1
!
ipv6 router eigrp 1
stub summary
no shutdown
```

R1 cannot receive the R2 Interfaces with individual prefixes. What must be reconfigured to advertise R2 Interfaces to R1?

- A. EIGRP process on R2 by removing the stub command Keyword summary
- B. interface FastEthernet0/1 on R2 with an EIGRP summary for all three loopback prefixes
- C. EIGRP process on R2 with the command stub summary receive-only
- D. EIGRP process on R2 with the command stub summary connected

**Answer: D**

#### NEW QUESTION 321

- (Exam Topic 3)

```
admin@linux:~$ telnet 198.51.100.64
Trying 198.51.100.64...
Connected to 198.51.100.64.
Escape character is '^]'.

User Access Verification

Password: admin
CPE> exit
Connection closed by foreign host.
admin@linux:~$ ssh 198.51.100.64
admin@198.51.100.64's password: admin
Permission denied, please try again.
admin@198.51.100.64's password: admin
Permission denied, please try again.
admin@198.51.100.64's password: admin
Connection closed by 198.51.100.64 port 22
admin@linux:~$
```

Refer to the exhibit. An administrator can log in to the device using Telnet but the attempts to log in to the same device using SSH with the same credentials fail. Which action resolves this issue?

- A. Configure SSH service on the router
- B. Configure transport input all on the VTY lines to allow SSH
- C. Configure to use the Telnet user database for SSH as well
- D. Configure the VTY lines with login local

Answer: A

#### NEW QUESTION 324

- (Exam Topic 3)

```
Router# show logging

Syslog logging: enabled (0 messages dropped, 0 messages rate-limited, 0 flushes, 0
overruns, xml disabled, filtering disabled)

No Active Message Discriminator.
No Inactive Message Discriminator.

Console logging: level debugging, 8 messages logged, xml disabled,
filtering disabled

Monitor logging: level debugging, 0 messages logged, xml disabled,
filtering disabled

Buffer logging: level debugging, 8 messages logged, xml disabled,
filtering disabled

Exception Logging: size (8192 bytes)

Count and timestamp logging messages: disabled

Persistent logging: disabled
```

Refer to the exhibit. A network engineer lost remote access to the router due to a network problem. The engineer used the console to access the router and noticed continuous logs on the console terminal. Which configuration limits the number of log messages on the console to critical and higher severity level messages?

- A. term no monitor
- B. logging console 2
- C. no logging console
- D. logging console 5

Answer: D

#### NEW QUESTION 328

- (Exam Topic 3)

```
GigabitEthernet2 is up, line protocol is up
Internet Address 172.16.1.42/30, Interface ID 8, Area 1
Attached via Network Statement
Process ID 1, Router ID 172.16.100.7, Network Type BROADCAST, Cost: 1
Topology-MTID Cost Disabled Shutdown Topology Name
0 1 no no Base
Transmit Delay is 1 sec, State DR, Priority 1
Designated Router (ID) 172.16.100.7, Interface address 172.16.1.42
Backup Designated router (ID) 172.16.100.5, Interface address 172.16.1.41
Timer intervals configured, Hello 10, Dead 40, wait 40, Retransmit 5
oob-resync timeout 40
Hello due in 00:00:01

Neighbor Count is 1, Adjacent neighbor count is 1
Adjacent with neighbor 172.16.100.5 (Backup Designated Router)
Suppress hello for 0 neighbor(s)
Cryptographic authentication enabled
Sending SA: key 1, Algorithm HMAC-SHA-256 - key chain ospf
Rollover in progress, 1 neighbor(s) using the old key(s):
key id 1 algorithm MD5
CSR103#
CSR103#
CSR103#sh ip ospf nei

Neighbor ID Pri State Dead Time Address Interface
172.16.100.3 1 FULL/DR 00:00:30 172.16.1.25 GigabitEthernet3
172.16.100.5 1 FULL/BDR 00:00:16 172.16.1.41 GigabitEthernet2
CSR103#
CSR103#
*Jan 11 16:49:35.311: %SYS-6-LOGOUT: User admin has exited tty session 1(10.228.200.250)
*Jan 11 16:49:45.396: %OSPF-5-ADJCHG: Process 1, Nbr 172.16.100.5 on GigabitEthernet2 from
FULL to DOWN, Neighbor Down: Dead timer expired
```

Refer to the exhibit. Which configuration resolves the issue?

A)



```
router ospf 1
 area 1 authentication message-digest
 int GigabitEthernet 2
 ip ospf message-digest-key 1 md5 cisco
```

B)

```
int GigabitEthernet 2
 ip ospf message-digest-key 1 md5 cisco
 ip ospf authentication message-digest
```

C)

```
int GigabitEthernet 2
 ip ospf key 1 cisco
 ip ospf authentication
```

D)

```
key chain ospf
 key 1
 key-string 7 02050D480809
 cryptographic-algorithm hmac-sha-1
 interface GigabitEthernet2
 ip ospf authentication key-chain ospf
```

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

**Answer: D**

#### NEW QUESTION 329

- (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 333

- (Exam Topic 3)

Refer to the exhibit.

```
Tunnel source 199.1.1.1, destination 200.1.1.3
Tunnel protocol/transport GRE/IP
Key disabled, sequencing disabled
Checksumming of packets disabled
Tunnel TTL 255, Fast tunneling enabled
Tunnel transport MTU 1476 bytes
Tunnel transmit bandwidth 8000 (kbps)
Tunnel receive bandwidth 8000 (kbps)
```

An engineer must establish a point-to-point GRE VPN between R1 and the remote site. Which configuration accomplishes the task for the remote site?

- A. Interface Tunnel1 tunnel source 199.1.1.1 tunnel destination 200.1.1.3 ip address 192.168.1.3 255.255.255.0
- B. Interface Tunnel1 tunnel source 200.1.1.3 tunnel destination 199.1.1.1 ip address 192.168.1.1 255.255.255.0

- C. Interface Tunnel1 tunnel source 200.1.1.3 tunnel destination 199.1.1.1 ip address 192.168.1.3.255.255.255.0  
D. Interface Tunnel tunnel source 199.1.1.1 tunnel destination 200.1.1.3 ip address 192.168.1.1.255.255.255.0

**Answer: C**

#### NEW QUESTION 334

- (Exam Topic 3)

Refer to the exhibit.

```
R1#show ip route ospf

10.0.0.0/24 is subnetted, 7 subnets

O E2    10.4.9.0 [110/200] via 10.4.17.6, 00:06:43,
FastEthernet0/0

          [110/200] via 10.4.15.5, 00:06:43,
FastEthernet0/1

O IA     10.4.27.0 [110/2] via 10.4.15.5, 00:06:44,
FastEthernet0/1

O E2     10.4.49.0 [110/200] via 10.4.17.6, 00:06:43,
FastEthernet0/0
```

An engineer configures two ASBRs 10 4 17.6 and 10 4 15.5 in an OSPF network to redistribute routes from EIGRP. However, both ASBRs show the EIGRP routes as equal costs even though the next-hop router 10 4 17.6 is closer to R1. How should the network traffic to the EIGRP prefixes be sent via 10 4.17.6?

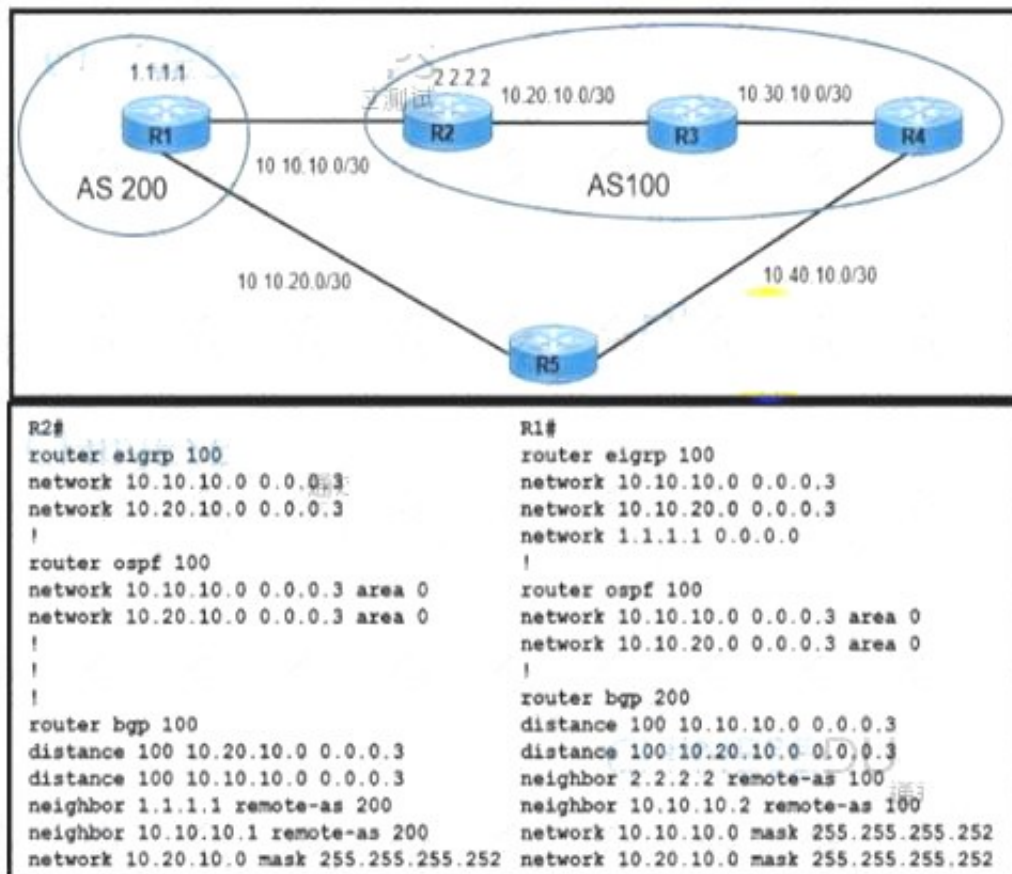
- A. The administrative distance should be raised to 120 from the ASBR 10.4.15.5.  
B. The redistributed prefixes should be advertised as Type 1.  
C. The ASBR 10 4 17.6 should assign a tag to match and assign a lower metric on R1.  
D. The administrative distance should be raised to 120 from the ASBR 104.17.6.  
E. The administrative distance should be raised to 120 from the ASBR 104 15.5.  
F. The redistributed prefixes should be advertised as Type 1.  
G. The ASBR 10 4 17.6 should assign a tag to match and assign a lower metric on R1.  
H. The administrative distance should be raised to 120 from the ASBR 104 17.6

**Answer: B**

#### NEW QUESTION 337

- (Exam Topic 3)

Refer to the Exhibit.



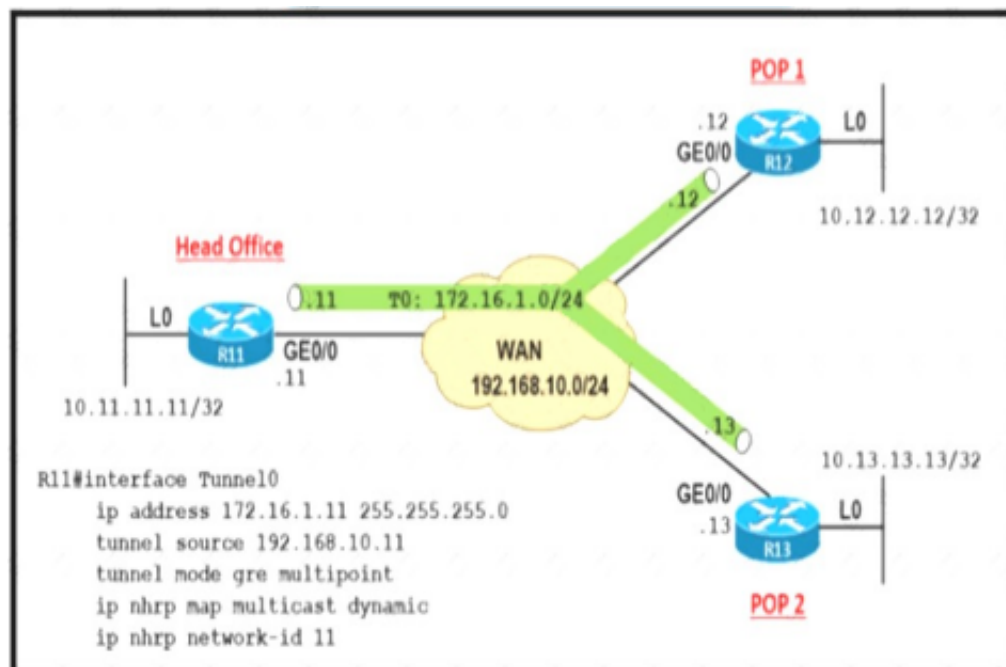
R1 and R2 use IGP protocol to route traffic between AS 100 and AS 200 despite being configured to use BGP. Which action resolves the issue and ensures the use of BGP?

- A. Configure distance to 100 under the EIGRP process of R1 and R2.  
B. Remove distance commands under BGP AS 100 and AS 200.  
C. Remove distance commands under BGP AS 100.  
D. Configure distance to 100 under the OSPF process of R1 and R2

**Answer: B**

#### NEW QUESTION 341

- (Exam Topic 3)



Refer to the exhibit A company builds WAN infrastructure between the head office and POPs using DMVPN hub-and-spoke topology to provide end-to-end communication All POPs must maintain point-to-point connectivity with the head office Which configuration meets the requirement at routers R12 and R13?

- ☐ R12#  
**interface Tunnel0**  
 ip nhrp map multicast 192.168.10.11  
 ip nhrp map 172.16.1.11 192.168.10.11  
 ip nhrp network-id 12  
 ip nhrp nhs 172.16.1.11
- R13#  
**interface Tunnel0**  
 ip nhrp map multicast 192.168.10.11  
 ip nhrp map 172.16.1.11 192.168.10.11  
 ip nhrp network-id 13  
 ip nhrp nhs 172.16.1.11
- ☐ R12#  
**interface Tunnel0**  
 ip nhrp map multicast 172.16.1.11  
 ip nhrp map 172.16.1.11 192.168.10.11  
 ip nhrp network-id 12  
 ip nhrp nhs 192.168.10.11
- R13#  
**interface Tunnel0**  
 ip nhrp map multicast 172.16.1.11  
 ip nhrp map 172.16.1.11 192.168.10.11  
 ip nhrp network-id 13  
 ip nhrp nhs 192.168.10.11
- ☐ Configure routers R12 and R13 as:
- interface Tunnel0**  
 ip nhrp map multicast 172.16.1.11  
 ip nhrp map 172.16.1.11 192.168.10.11  
 ip nhrp network-id 11  
 ip nhrp nhs 192.168.10.11
- ☐ Configure routers R12 and R13 as:
- interface Tunnel0**  
 ip nhrp map multicast 192.168.10.11  
 ip nhrp map 172.16.1.11 192.168.10.11  
 ip nhrp network-id 11  
 ip nhrp nhs 172.16.1.11

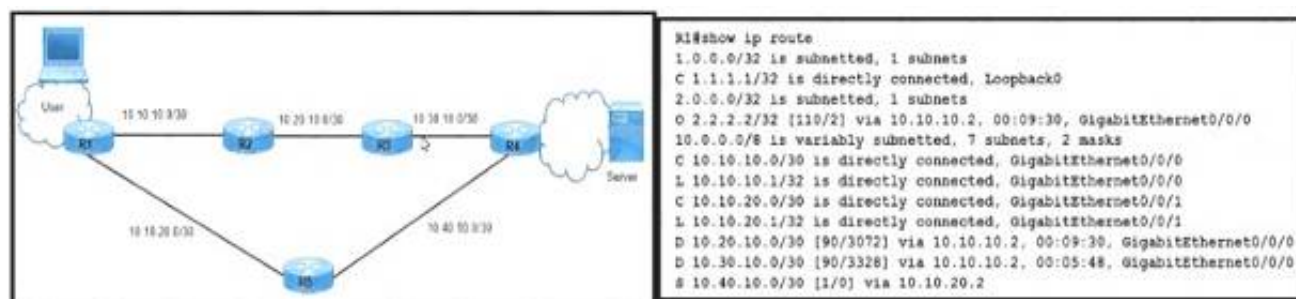
- A. Option A  
 B. Option B  
 C. Option C  
 D. Option D

**Answer: D**

#### NEW QUESTION 344

- (Exam Topic 3)  
 Refer to the exhibit.





Routers R1, R2, R3, and R4 use EIGRP. However, traffic always prefers R1 to R5 backup links in nonfailure scenarios. Which configuration resolves the issue?

A)

```

R1(config)#no ip route 10.40.10.0 255.255.255.252 10.10.20.2
R1(config)#ip route 0.0.0.0 0.0.0.0 10.10.10.2
  
```

B)

```

R1(config)#int gigabitEthernet 0/0/0
R1(config-if)#bandwidth 10000000
  
```

C)

```

R1(config)#no ip route 10.40.10.0 255.255.255.252 10.10.20.2
R1(config)#ip route 10.40.10.0 255.255.255.252 10.10.20.2 115
  
```

D)

```

R1(config)#int gigabitEthernet 0/0/0
R1(config-if)#bandwidth 10000
  
```

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

**Answer: A**

#### NEW QUESTION 345

- (Exam Topic 3)

Refer to the exhibit.

```

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.
  
```

Which command must be configured to make VRF CCNP work?

- A. interface Loopback0 vrf forwarding CCNP
- B. interface Loopback0 ip address 10.1.1.1 255.255.255.0
- C. interface Loopback0 ip address 10.1.1.1 255.255.255.0 vrf forwarding CCNP
- D. interface Loopback0 ip address 10.1.1.1 255.255.255.0 ip vrf forwarding CCNP

**Answer: B**

#### Explanation:

From the exhibit, we learn that the command "ip address 10.1.1.1 255.255.255.0" has been issued before the command "ip vrf forwarding CCNP". But the second command removed the IP address configured in the first command so we have to retype the IP address command.

#### NEW QUESTION 346

- (Exam Topic 3)

Refer to the exhibit.

```

R1(config)#ipv6 prefix-list PRE-PEND-PREFIX permit 2001:db8:0:a::/64
R1(config)#route-map PRE-PEND permit 10
R1(config-route-map)#match ipv6 address prefix-list PRE-PEND-PREFIX
R1(config-route-map)#set as-path prepend 65412
R1(config)#router bgp 65412
R1(config-router)#address-family ipv6
R1(config-router-af)#neighbor 2001:db8:0:2c::2 route-map PRE-PEND out
  
```

R1 has a route map configured, which results in a loss of partial IPv6 prefixes for the BGP neighbor, resulting in service degradation. How can the full service be restored?

- A. The neighbor requires a soft reconfiguration, and this will clear the policy without resetting the BGP TCP connection.
- B. The prefix list requires all prefixes that R1 is advertising to be added to it, and this will allow additional prefixes to be advertised.
- C. The route map requires a deny 20 statement without set conditions, and this will allow additional prefixes to be advertised.
- D. The route map requires a permit 20 statement without set conditions, and this will allow additional prefixes to be advertised.



Answer: D

#### NEW QUESTION 349

- (Exam Topic 3)

What is the purpose of the DHCPv6 Guard?

- A. It messages between a DHCPv6 server and a DHCPv6 client ( or relay agent).
- B. It shows that clients of a DHCPv5 server are affected.
- C. It block DHCPv6 messages from relay agents to a DHCPv6 server.
- D. It allows DHCPv6 replay and advertisements from (rouge) DHCPv6 servers.

Answer: A

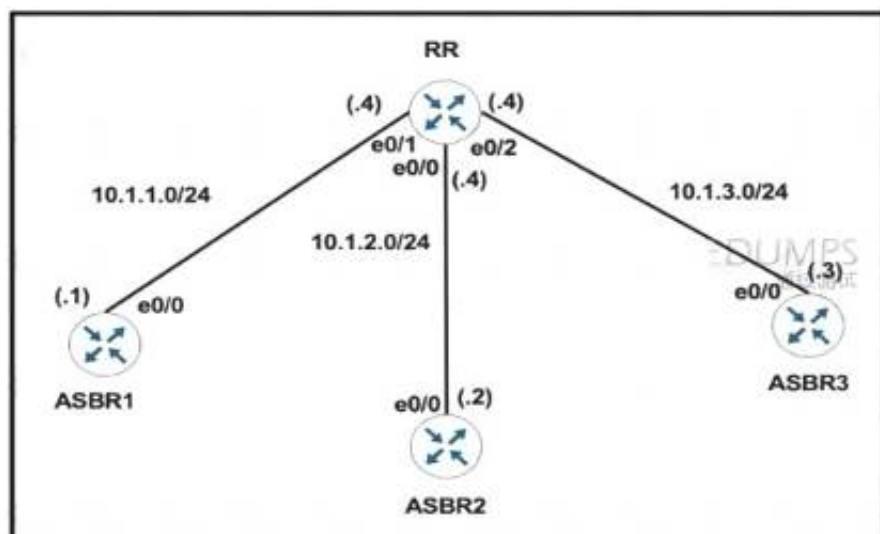
#### Explanation:

[https://www.cisco.com/c/en/us/td/docs/ios-xml/ios/ipv6\\_fhsec/configuration/xr-16/ip6fxe-16-book/ip6-dhcpv6-guard.html](https://www.cisco.com/c/en/us/td/docs/ios-xml/ios/ipv6_fhsec/configuration/xr-16/ip6fxe-16-book/ip6-dhcpv6-guard.html)

#### NEW QUESTION 351

- (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 353

- (Exam Topic 3)

```
R2#show policy-map control-plane
Control Plane
Service-policy input: CoPP
Class-map: SSH (match-all)
  29 packets, 2215 bytes
  5 minute offered rate 0000 bps
  Match: access-group 100

Class-map: ANY (match-all)
  46 packets, 3878 bytes
  5 minute offered rate 0000 bps, drop rate 0000 bps
  Match: access-group 199
  drop

Class-map: class-default (match-any)
  41 packets, 5687 bytes
  5 minute offered rate 0000 bps, drop rate 0000 bps
  Match: any

R2#show access-list 100
Extended IP access list 100
  10 deny tcp any any eq 22 (14 matches)
  20 permit tcp host 192.168.12.1 any eq 22 (29 matches)
R2#show access-list 199
Extended IP access list 199
  10 permit ip any any (51 matches)
```

Refer to the exhibit. Which action limits the access to R2 from 192.168.12.1?

- A. Swap sequence 10 with sequence 20 in access-list 100.
- B. Modify sequence 20 to permit tcp host 192.168.12.1 eq 22 any to access-list 100
- C. Swap sequence 20 with sequence 10 in access-list 100
- D. Modify sequence 10 to deny tcp any eq 22 any to access-list 100.

**Answer: C**

#### NEW QUESTION 358

- (Exam Topic 3)

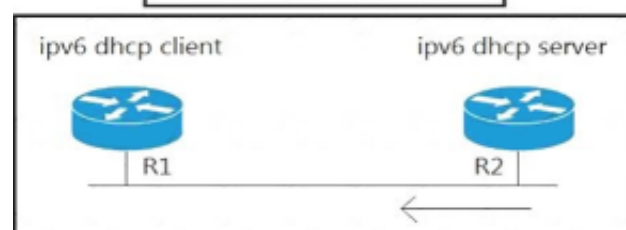
Refer to the exhibit.

```
ipv6 dhcp server:

ipv6 unicast-routing
!
int e0/1
ipv6 enable
ipv6 add 2001:11::1/64
ipv6 nd other-config-flag
no shut
ipv6 dhcp server IPv6Pool
!
ipv6 dhcp pool IPv6Pool
dns-server 2002:555::1
domain-name my.net

ipv6 dhcp client:

interface Ethernet0/1
no ip address
ipv6 address dhcp
ipv6 enable
no shut
```



A network administrator is troubleshooting IPv6 address assignment for a DHCP client that is not getting an IPv6 address from the server. Which configuration retrieves the client IPv6 address from the DHCP server?

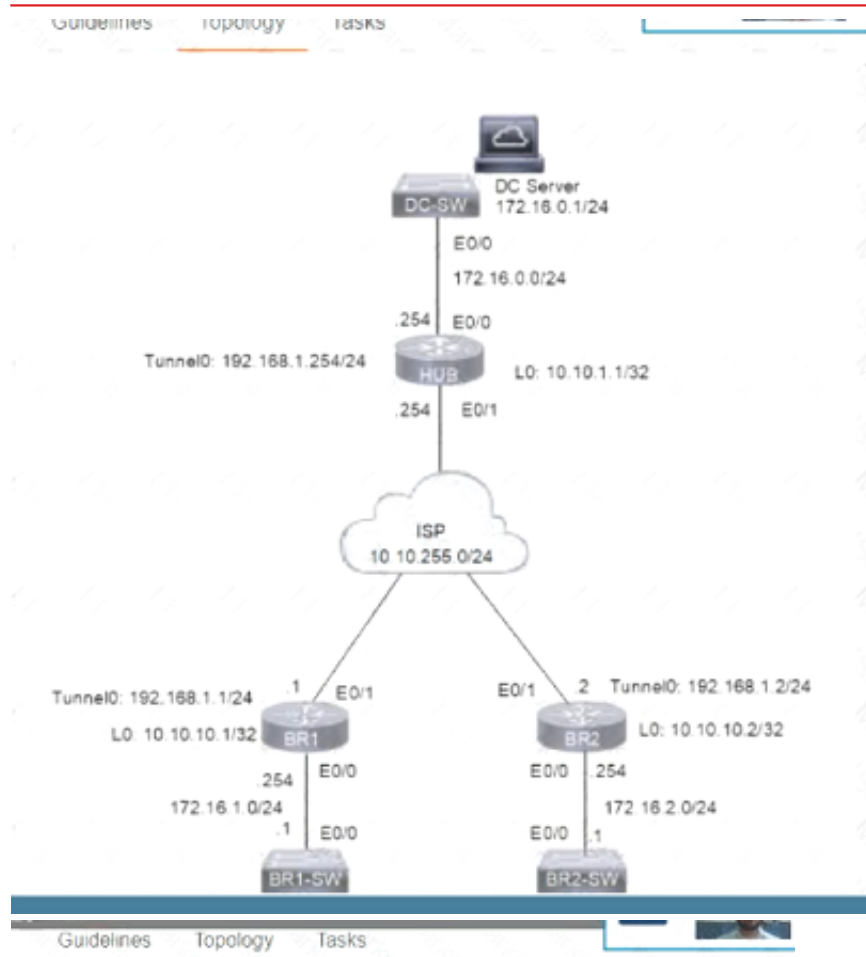
- A. ipv6 address autoconfig command on the interface
- B. ipv6 dhcp server automatic command on DHCP server
- C. ipv6 dhcp relay-agent command on the interface
- D. service dhcp command on DHCP server

**Answer: A**

#### NEW QUESTION 359

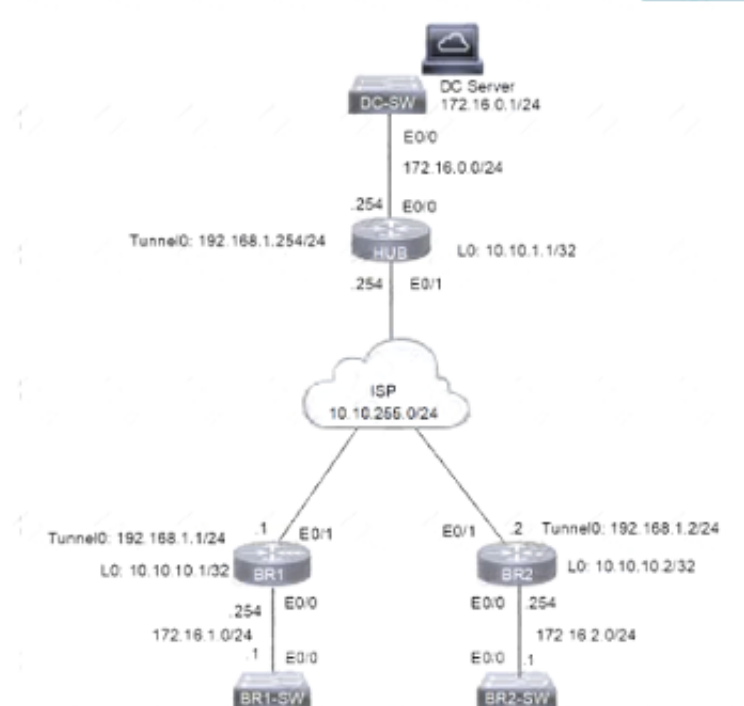
- (Exam Topic 3)

A DMVPN network is preconfigured with tunnel 0 IP address 192.168.1.254 on the HUB, IP connectivity, crypto policies, profiles, and EIGRP AS 100. The NHRP password is ccnp123, and the network ID and tunnel key is EIGRP ASN Do not introduce a static route. Configure DMVPN connectivity between routers BR1 and BR2 to the HUB router using physical interface as the tunnel source to achieve these goals:



A DMVPN network is preconfigured with tunnel 0 IP address 192.168.1.254 on the HUB, IP connectivity, crypto policies, profiles, and EIGRP AS 100. The NHRP password is **ccnp123**, and the network ID and tunnel key is **EIGRP ASN**. Do not introduce a static route. Configure DMVPN connectivity between routers BR1 and BR2 to the HUB router using physical interface as the tunnel source to achieve these goals:

1. Configure NHRP authentication, static IP-to-NBMA address maps, hold time 5 minutes, network ID, and server on branch router BR1.
2. Configure NHRP authentication, static IP-to-NBMA address maps, hold time 5 minutes, network ID, and server on branch router BR2.
3. Ensure that packet fragmentation is done before encryption to account for GRE and IPsec header and allow a maximum TCP segment size of 1360 on an IP MTU of 1400 on the tunnel interfaces of both branch routers.
4. Apply an IPsec profile to the tunnel. Verify that direct spoke-to-spoke tunnel is functional between branch routers BR1



Topology Diagram



A DMVPN network is preconfigured with tunnel 0 IP address 192.168.1.254 on the HUB, IP connectivity, crypto policies, profiles, and EIGRP AS 100. The NHRP password is **ccnp123**, and the network ID and tunnel key is **EIGRP ASN**. Do not introduce a static route. Configure DMVPN connectivity between routers BR1 and BR2 to the HUB router using physical interface as the tunnel source to achieve these goals:

1. Configure NHRP authentication, static IP-to-NBMA address maps, hold time 5 minutes, network ID, and server on branch router BR1.
2. Configure NHRP authentication, static IP-to-NBMA address maps, hold time 5 minutes, network ID, and server on branch router BR2.
3. Ensure that packet fragmentation is done before encryption to account for GRE and IPsec header and allow a maximum TCP segment size of 1360 on an IP MTU of 1400 on the tunnel interfaces of both branch routers.
4. Apply an IPsec profile to the tunnel. Verify that direct spoke-to-spoke tunnel is functional between branch routers BR1 and BR2 by using traceroute to Ethernet 0/0 IP address to get a full score.

 Submit feedback about this item.

- A. Mastered
- B. Not Mastered

**Answer:** A

**Explanation:**

ON BR1

```
Current configuration : 405 bytes
!
interface Tunnel0
ip address 192.168.1.1 255.255.255.0
no ip redirects
ip mtu 1400
ip nhrp authentication ccnp123
ip nhrp map 192.168.1.254 10.10.255.254
ip nhrp map multicast 10.10.255.254
ip nhrp network-id 100
ip nhrp holdtime 5
ip nhrp nhs 192.168.1.254
ip nhrp shortcut
ip tcp adjust-mss 1360
delay 1000
tunnel source 10.10.255.1
tunnel destination 10.10.255.254
tunnel key 100
end

BR1(config)#
BR1(config)#
```

ON BR2

```

DC-SW  HUB  BR1  BR1-SW  BR2  BR2-SW
UpDn Time --> Up or Down Time for a Tunnel

Interface: Tunnel0, IPv4 NHRP Details
Type:Spoke, NHRP Peers:1,

# Ent Peer NBMA Addr Peer Tunnel Add State UpDn Tm Attrb
-----
1 10.10.255.254 192.168.1.254 NHRP 00:17:20 S

BR2(config)#do show run int tu 0
Building configuration...

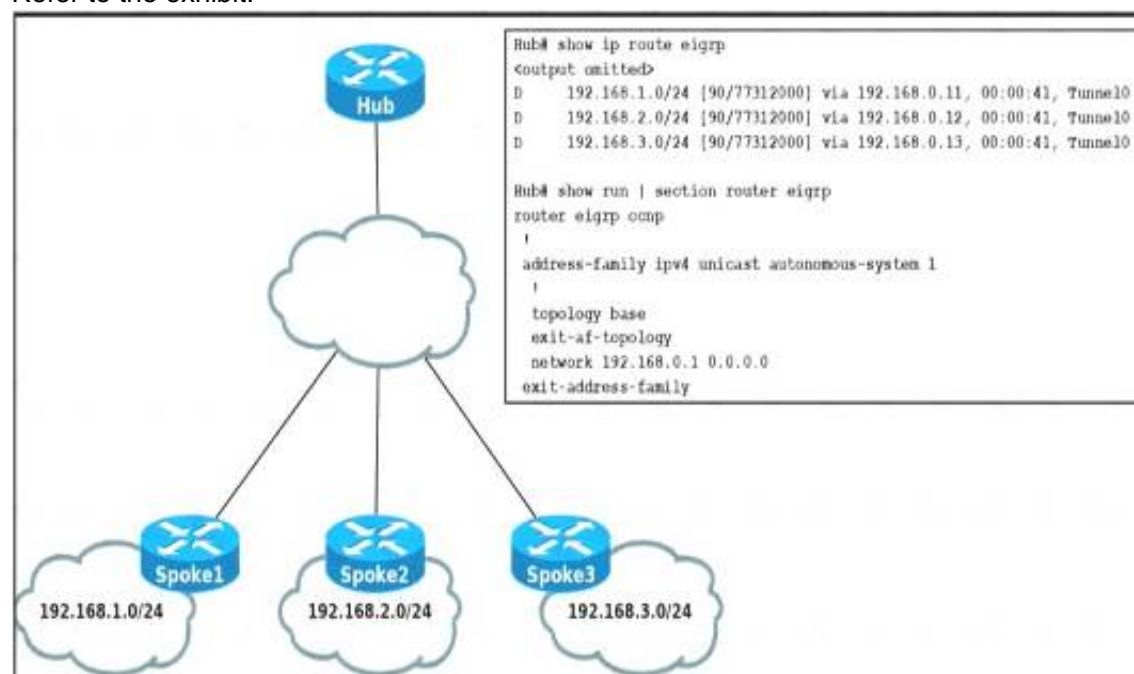
Current configuration : 404 bytes
!
interface Tunnel0
 ip address 192.168.1.2 255.255.255.0
 no ip redirects
 ip mtu 1400
 ip nhrp authentication ccnp123
 ip nhrp map 192.168.1.254 10.10.255.254
 ip nhrp map multicast 10.10.255.254
 ip nhrp network-id 100
 ip nhrp holdtime 5
 ip nhrp nhs 192.168.1.254
 ip nhrp shortcut
 ip tcp adjust-mss 1360
 delay 1000
 tunnel source 10.10.10.2
 tunnel destination 10.10.255.254
 tunnel key 100
end

```

#### NEW QUESTION 361

- (Exam Topic 3)

Refer to the exhibit.



Spoke routers do not learn about each other's routes in the DMVPN Phase2 network. Which action resolves the issue?

- A. Remove default route from spoke routers to establish a spoke-to-spoke tunnel.
- B. Configure a static route in each spoke to establish a spoke-to-spoke tunnel.
- C. Rectify incorrect wildcard mask configured on the hub router network command.
- D. Disable EIGRP split horizon on the Tunnel0 interface of the hub router.

Answer: D

#### NEW QUESTION 365

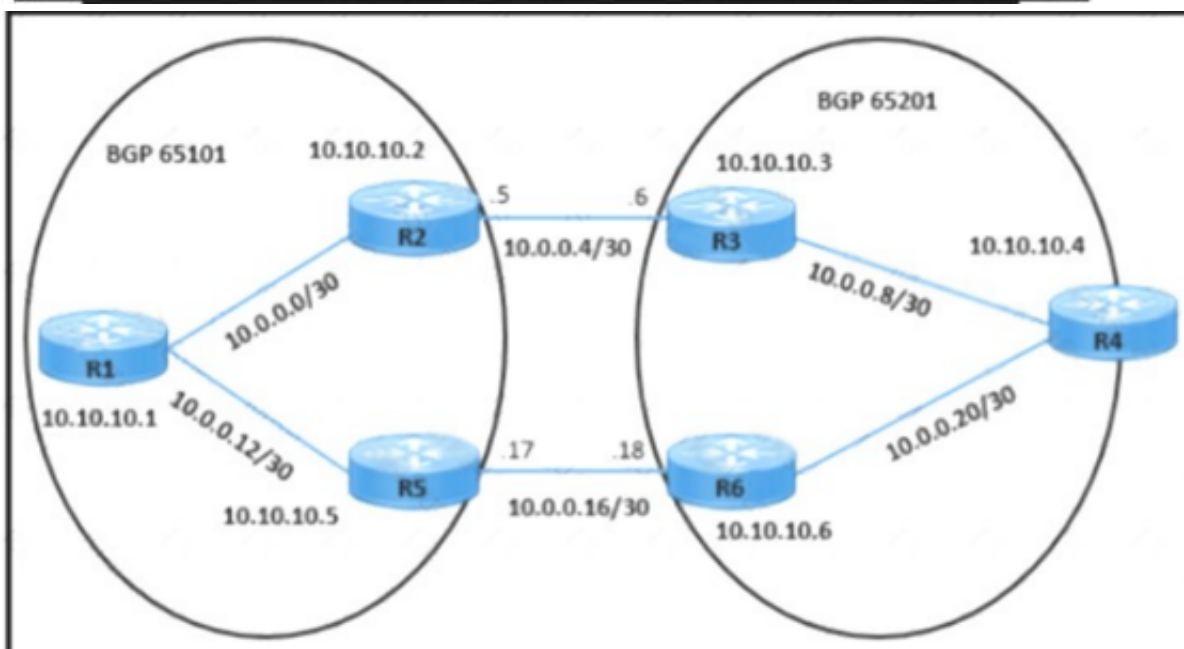
- (Exam Topic 3)

Refer to the exhibit.

```
R3#
*Sep  5 07:29:34.031: %TCP-6-BADAUTH: No MD5 digest from 10.10.10.2(179) to
10.10.10.3(60942) (RST)
R2# show ip bgp neighbors 10.10.10.3
BGP neighbor is 10.10.10.3, remote AS 65201, external link
  BGP version 4, remote router ID 0.0.0.0
  BGP state = Idle
  Last read 00:02:19, last write 00:02:19, hold time is 180, keepalive interval is
60 seconds
  Message statistics:
    InQ depth is 0
    OutQ depth is 0

    Sent      Rcvd
Opens:         2         2
Notifications: 0         0
Updates:        5         6
Keepalives:    10        9
Route Refresh:  0         0
Total:         17        17

Default minimum time between advertisement runs is 30 seconds
Address tracking is enabled, the RIB does have a route to 10.10.10.3
Connections established 2; dropped 2
Last reset 00:11:58, due to Peer closed the session
External BGP neighbor not directly connected.
Transport(tcp) path-mtu-discovery is enabled
No active TCP connection
```



The network operation team observes a traffic forwarding issue between R2 and R3:

- Ping and traceroute of loopback IP address from R2 to R3 is successful.
- iBGP peering in AS 65101 and AS 65201 is up. Which configuration resolves the issue?

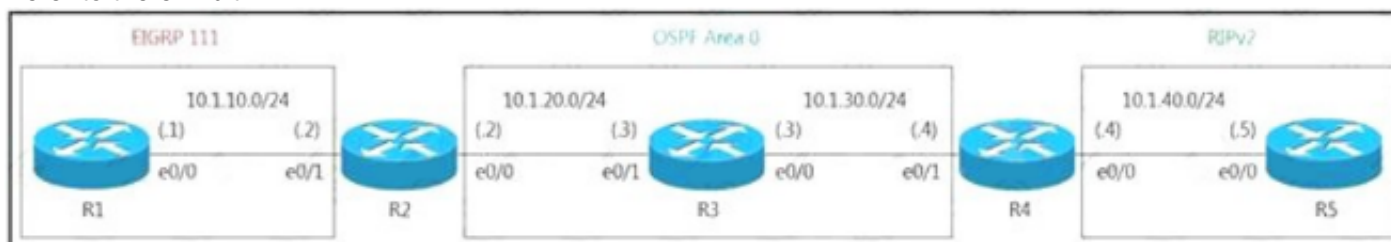
- A. Configure MD5 password authentication on R2.
- B. Advertise R2 and R3 loopback IPs in AS 65101 and AS 65201.
- C. Remove MD5 password authentication on R3.
- D. Set up eBGP multihop on R2 and R3 routers.

**Answer: D**

### NEW QUESTION 368

- (Exam Topic 3)

Refer to the exhibit.



```
R2
route-map E20 permit 10
  set tag 111
!
router eigrp 111
 redistribute ospf 1 metric 10 10 10 10 10
!
router ospf 1
 redistribute eigrp 111 route-map E20 subnets

R4
router rip
router ospf 1
 redistribute rip subnets
```

R5 should not receive any routes originated in the EIGRP domain. Which set of configuration changes removes the EIGRP routes from the R5 routing table to fix the issue?

- A. R4route-map O2R deny 10 match tag 111route-map O2R permit 20!router ripredistribute ospf 1 route-map O2R metric 1
- B. R2route-map E20 deny 20 R4route-map O2R deny 10 match tag 111!router ripredistribute ospf 1 route-map O2R metric 1



- C. R4route-map O2R permit 10 match tag 111route-map O2R deny 20!router ripredistribute ospf 1 route-map O2R metric 1  
D. R4route-map O2R deny 10 match tag 111!router ripredistribute ospf 1 route-map O2R metric 1

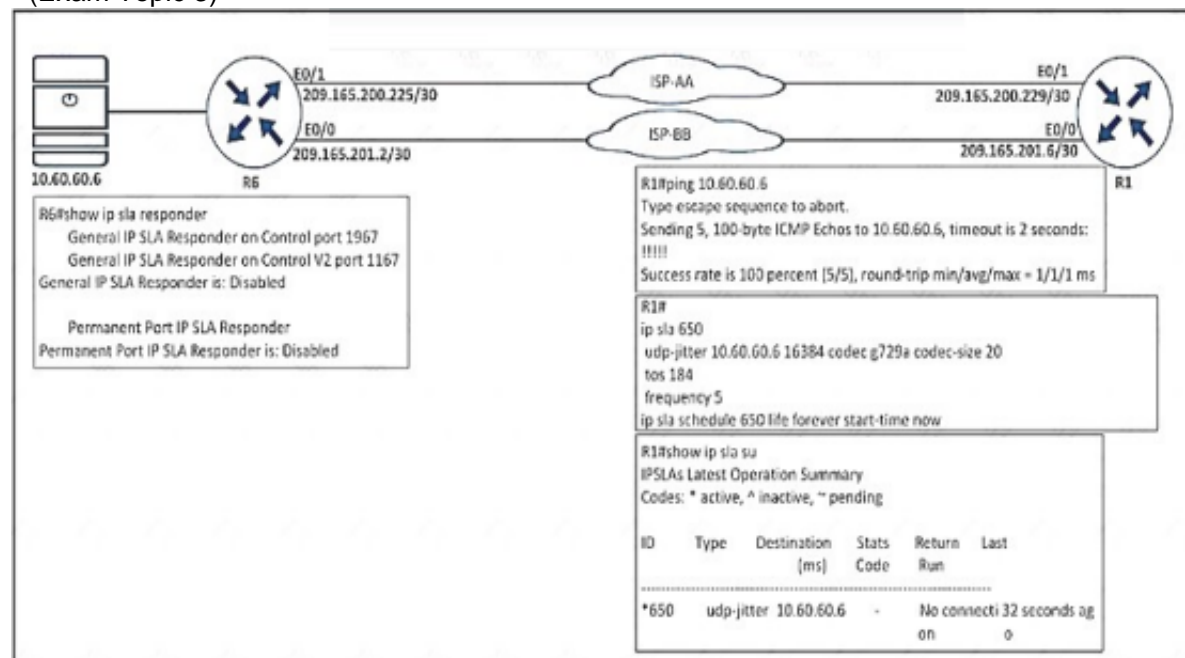
**Answer: A**

**Explanation:**

In this question, routes from EIGRP domain are redistributed into OSPF (with tag 111) then RIPv2 but without any filtering so R5 learns all routes from both EIGRP and OSPF domain. If we only want R5 to learn routes from OSPF domain then we must filter out routes with tag 111 and permit other routes. The line "route-map O2R permit 20" is important to allow other routes because of the implicit deny all at the end of each route-map.

**NEW QUESTION 372**

- (Exam Topic 3)



Refer to the exhibit. Which configuration resolves the IP SLA issue from R1 to the server?

- A. R6(config)#ip sla responder  
B. R6(config)#ip sla responder udp-echo ipaddress 10.60.60.6 po 5000  
C. R6(config)#ip sla 650 R6(config-ip-sla)ff udp-jitter 10.60.60.6  
D. R6(config)#ip sla schedule 10 life forever start-time now

**Answer: A**

**NEW QUESTION 377**

- (Exam Topic 3)

How does LDP operate in an MPLS network?

- A. When topology changes occur such as a router failure, LDP generates peer discovery messages that terminate the LDP session to propagate an LSP change.  
B. When an adjacent LSR receives LDP discovery message  
C. TCP two-way handshake ensures that the LDP session has unidirectional connectivity.  
D. Peer routers establish the LDP session, and the LDP neighbors maintain and terminate the session by exchanging messages  
E. LDP notification messages allow LERs to exchange label information to determine the next hops within a particular LSP.

**Answer: D**

**NEW QUESTION 382**

- (Exam Topic 3)

Refer to the exhibit.



An engineer implemented CoPP but did not see OSPF traffic going through it. Which configuration resolves the issue?

- A. ip access-list extended OSPF permit ospf any any  
B. policy-map COPP class OSFP police 8000 conform-action transmit exceed-action transmit violate-action drop  
C. control-plane service-policy input COPP  
D. class-map match-all OSFP match access-group name OSPF

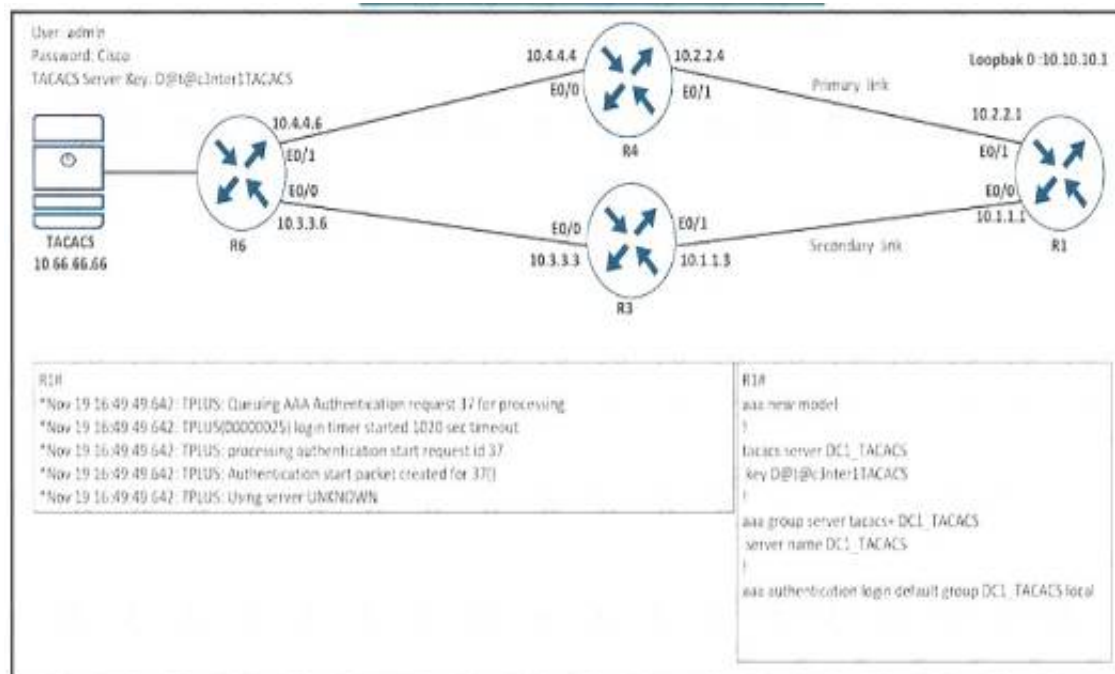
**Answer: B**



### NEW QUESTION 387

- (Exam Topic 3)

Refer to the exhibit.



Refer to the exhibit

R1 cannot authenticate via TACACS

Which configuration resolves the issue?

- ☒ `aaa group server tacacs+ DC_TACACS`  
`server name DC_TACACS`
- ☐ `tacacs server DC1_TACACS`  
`address ipv4 10.66.66.66`  
`key D@t@c3nter1TACACS`
- ☐ `aaa group server tacacs+ DC1_TACACS`  
`server name DC_TACACS`
- ☐ `tacacs server DC1_TACACS`  
`address ipv4 10.60.66.66`  
`key D@t@c3nter1TACACS`

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

**Answer: B**

### NEW QUESTION 389

- (Exam Topic 3)

Which function does LDP provide in an MPLS topology?

- A. It enables a MPLS topology to connect multiple VPNs to P routers.
- B. It provides hop-by-hop forwarding in an MPLS topology for LSRs.
- C. It exchanges routes for MPLS VPNs across different VRFs.
- D. It provides a means for LSRs to exchange IP routes.

**Answer: B**

#### Explanation:

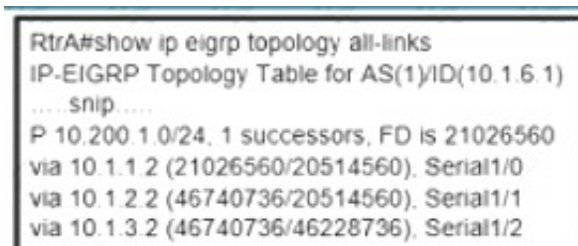
LDP provides a standard methodology for hop-by-hop, or dynamic label, distribution in an MPLS network by assigning labels to routes that have been chosen by the underlying Interior Gateway Protocol (IGP) routing protocols. The resulting labeled paths, called label switch paths (LSPs), forward label traffic across an MPLS backbone to particular destinations.

Reference: [https://www.cisco.com/c/en/us/td/docs/ios-xml/ios/mp\\_ldp/configuration/12-4t/mp-ldp-12-4t-book.pdf](https://www.cisco.com/c/en/us/td/docs/ios-xml/ios/mp_ldp/configuration/12-4t/mp-ldp-12-4t-book.pdf)

### NEW QUESTION 390

- (Exam Topic 3)

Refer to the exhibit.



Which action makes 10.1.3.2 the feasible successor to reach 10.200.1.0/24 for location S42T447E33F95?

- A. Increase path bandwidth lower than 1011.2 and lower than 1012.2 between RtrA and the destination
- B. Increase path bandwidth higher than 10.1.2.2 and lower than 101.1.2 between RtrA and the destination.
- C. Increase path bandwidth higher than 1011.2 and lower than 1012.2 between RtrA and the destination

D. Increase path bandwidth higher than 10.1 2 2 and higher than 10.1.1.2 between RtrA and the destination

**Answer:** A

#### NEW QUESTION 391

- (Exam Topic 3)

Refer to the exhibit.

```
R2(config)# int tun0

*Feb 23 00:42:06.179: %LINEPROTO-5-UPDOWN: Line protocol on
Interface Tunnel0, changed state to down

R2(config-if)# ip address 192.168.12.2 255.255.255.0
R2(config-if)# tunnel source lo0
R2(config-if)# tunnel destination 10.255.255.1

*Feb 23 00:42:15.845: %LINEPROTO-5-UPDOWN: Line protocol on
Interface Tunnel0, changed state to up

R2(config-if)# router eigrp E
R2(config-router)# address-family ipv4 autonomous-system 1
R2(config-router-af)# net 192.168.12.2 0.0.0.0

*Feb 23 00:43:05.730: %DUAL-5-NBRCHANGE: EIGRP-IPv4 1: Neighbor
192.168.12.1 (Tunnel0) is up: new adjacency
*Feb 23 00:43:05.993: %ADJ-5-PARENT: Midchain parent maintenance
for IP midchain out of Tunnel0 - looped chain attempting to
stack
*Feb 23 00:43:15.193: %TUN-5-RECURDOWN: Tunnel0 temporarily
disabled due to recursive routing
*Feb 23 00:43:15.193: %LINEPROTO-5-UPDOWN: Line protocol on
Interface Tunnel0, changed state to down
```

An administrator is configuring a GRE tunnel to establish an EIGRP neighbor to a remote router. The other tunnel endpoint is already configured. After applying the configuration as shown, the tunnel started flapping. Which action resolves the issue?

- A. Stop sending a route matching the tunnel destination across the tunnel.
- B. Modify the network command to use the Tunne10 Interface netmask.
- C. Advertise the Loopback0 interface from R2 across the tunnel.
- D. Readdress the IP network on the Tunne10 on both routers using the /31 netmask.

**Answer:** A

#### NEW QUESTION 394

- (Exam Topic 3)

How is VPN routing information distributed in an MPLS network?

- A. The top level of the customer data packet directs it to the correct CE device
- B. It is established using VPN IPsec peers.
- C. It is controlled using of VPN target communities.
- D. It is controlled through the use of RD.

**Answer:** C

#### Explanation:

The distribution of virtual private network (VPN) routing information is controlled through the use of VPN route target communities, implemented by Border Gateway Protocol (BGP) extended communities.

Reference:

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

#### NEW QUESTION 397

- (Exam Topic 3)

Drag and drop the ICMPv6 neighbor discovery messages from the left onto the correct packet types on the right.

Neighbor Solicitation	ICMPv6 Type 134
Neighbor Advertisement	ICMPv6 Type 137
Router Advertisement	ICMPv6 Type 135
Redirect Message	ICMPv6 Type 133
Router Solicitation	ICMPv6 Type 136

- A. Mastered
- B. Not Mastered

**Answer:** A

#### Explanation:

A network engineer must configure a DMVPN network so that a spoke establishes a direct path to another spoke if the two must send traffic to each other. A spoke must send traffic directly to the hub if required. Which configuration meets this requirement?

- ```
On the spokes router:
interface tunnel10
ip nhrp nhs multicast dynamic
ip nhrp nhs redirect
tunnel mode gre multicast
```

```
ip vrf 1
ip vrf 2
!
int GigabitEthernet0/0
no shut
!
int GigabitEthernet0/0.1
encapsulation dot1Q 1
ip vrf forwarding 1
ip address 10.1.1.1 255.255.255.0
!
int GigabitEthernet0/0.2
encapsulation dot1Q 2
ip vrf forwarding 2
ip address 10.2.2.1 255.255.255.0
```

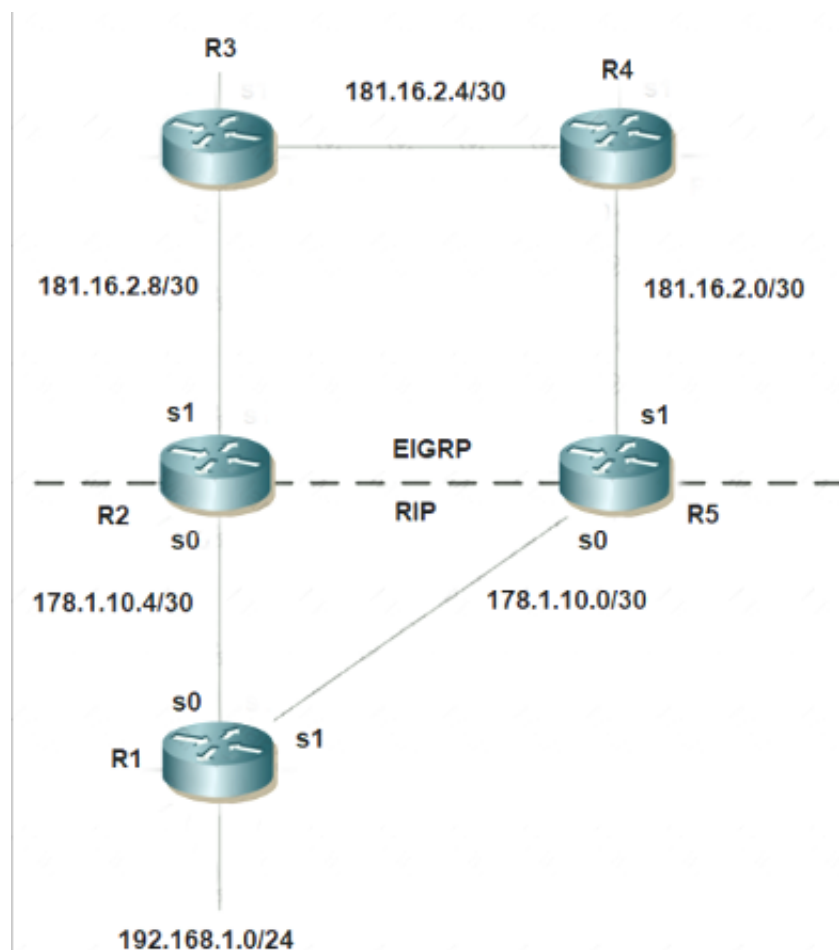
- A. Option A  
B. Option B  
C. Option C  
D. Option D

**Answer: B**

**NEW QUESTION 403**

Refer to the exhibit.





Mutual redistribution is enabled between RIP and EIGRP on R2 and R5. Which configuration resolves the routing loop for the 192.168.1.0/24 network?

- A. R2:router eigrp 10network 181.16.0.0redistribute rip metric 1 1 1 1 1 distribute-list 1 in s1!router ripnetwork 178.1.0.0redistribute eigrp 10 metric 2!access-list 1 deny 192.168.1.0 access-list 1 permit anyR5:router eigrp 10network 181.16.0.0redistribute rip metric 1 1 1 1 1 distribute-list 1 in s0!router ripnetwork 178.1.0.0redistribute eigrp 10 metric 2!access-list 1 deny 192.168.1.0 access-list 1 permit any
- B. R2:router eigrp 10network 181.16.0.0redistribute rip metric 1 1 1 1 1 distribute-list 1 in s0!router ripnetwork 178.1.0.0redistribute eigrp 10 metric 2!access-list 1 deny 192.168.1.0 access-list 1 permit anyR5:router eigrp 10network 181.16.0.0redistribute rip metric 1 1 1 1 1 distribute-list 1 in s0!router ripnetwork 178.1.0.0redistribute eigrp 10 metric 2!access-list 1 deny 192.168.1.0 access-list 1 permit any
- C. R2:router eigrp 10network 181.16.0.0redistribute rip metric 1 1 1 1 1 distribute-list 1 in s0!router ripnetwork 178.1.0.0redistribute eigrp 10 metric 2!access-list 1 deny 192.168.1.0 access-list 1 permit anyR5:router eigrp 10network 181.16.0.0redistribute rip metric 1 1 1 1 1 distribute-list 1 in s1!router ripnetwork 178.1.0.0redistribute eigrp 10 metric 2!access-list 1 deny 192.168.1.0 access-list 1 permit any
- D. R2:router eigrp 7network 181.16.0.0redistribute rip metric 1 1 1 1 1 distribute-list 1 in s1!router ripnetwork 178.1.0.0redistribute eigrp 7 metric 2!access-list 1 deny 192.168.1.0 access-list 1 permit anyR5:router eigrp 7network 181.16.0.0redistribute rip metric 1 1 1 1 1 distribute-list 1 in s1!router ripnetwork 178.1.0.0redistribute eigrp 7 metric 2!access-list 1 deny 192.168.1.0 access-list 1 permit any

**Answer: D**

**Explanation:**

<https://www.cisco.com/c/en/us/support/docs/ip/enhanced-interior-gateway-routing-protocol-eigrp/8606-redist.ht>

#### NEW QUESTION 408

- (Exam Topic 2)

What are two functions of LDP? (Choose two.)

- A. It is defined in RFC 3038 and 3039.
- B. It requires MPLS Traffic Engineering.
- C. It advertises labels per Forwarding Equivalence Class.
- D. It must use Resource Reservation Protocol.
- E. It uses Forwarding Equivalence Class

**Answer: CE**

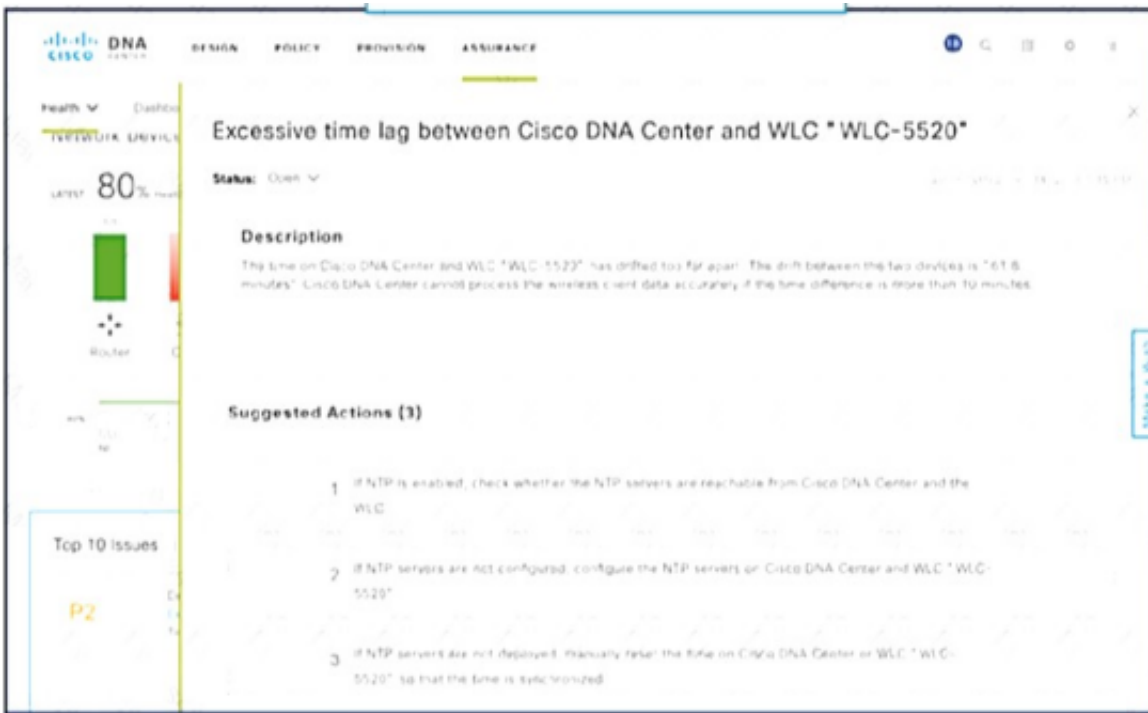
**Explanation:**

[https://www.cisco.com/c/en/us/td/docs/switches/datacenter/sw/5\\_x/nx-os/mpls/configuration/guide/mpls\\_cg/mp](https://www.cisco.com/c/en/us/td/docs/switches/datacenter/sw/5_x/nx-os/mpls/configuration/guide/mpls_cg/mp)

#### NEW QUESTION 410

- (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 412**

- (Exam Topic 2)

A DMVPN single hub topology is using IPsec + mGRE with OSPF. What should be configured on the hub to ensure it will be the designated router?

- A. tunnel interface of the hub with ip nhrp ospf dr
- B. OSPF priority to 0
- C. route map to set the metrics of learned routes to 110
- D. OSPF priority greater than 1

**Answer: D**

**Explanation:**

By default, the priority is 1 on all routers so we can set the OSPF priority of the hub to a value which is greater than 1 to make sure it would become the DR.

**NEW QUESTION 417**

- (Exam Topic 2)

Refer to the exhibit.

```
ipv6 access-list inbound
permit tcp any any
deny ipv6 any any log
!
interface gi0/0
ipv6 traffic-filter inbound out
```

A network administrator configured an IPv6 access list to allow TCP return frame only, but it is not working as expected. Which changes resolve this issue?

☒ **ipv6 access-list inbound**  
**permit tcp any any established**  
**deny ipv6 any any log**  
**!**  
**interface gi0/0**  
**ipv6 traffic-filter inbound out**

☐ **ipv6 access-list inbound**  
**permit tcp any any syn**  
**deny ipv6 any any log**  
**!**  
**interface gi0/0**  
**ipv6 traffic-filter inbound out**

☐ **ipv6 access-list inbound**  
**permit tcp any any established**  
**deny ipv6 any any log**  
**!**  
**interface gi0/0**  
**ipv6 traffic-filter inbound in**

☒ **ipv6 access-list inbound**  
**permit tcp any any syn**  
**deny ipv6 any any log**  
**!**  
**interface gi0/0**  
**ipv6 traffic-filter inbound in**

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

**Answer: C**

**Explanation:**

[https://www.cisco.com/c/en/us/td/docs/switches/lan/catalyst3750/software/release/122\\_55\\_se/configuration/guid](https://www.cisco.com/c/en/us/td/docs/switches/lan/catalyst3750/software/release/122_55_se/configuration/guid)

**NEW QUESTION 419**

- (Exam Topic 2)

An engineer needs dynamic routing between two routers and is unable to establish OSPF adjacency. The output of the show ip ospf neighbor command shows that the neighbor state is EXSTART/EXCHANGE. Which action should be taken to resolve this issue?

- A. match the passwords
- B. match the hello timers
- C. match the MTUs
- D. match the network types

**Answer: C**

**Explanation:**

**Neighbors Stuck in Exstart/Exchange State**

The problem occurs most frequently when attempting to run OSPF between a Cisco router and another vendor's router. The problem occurs when the **maximum transmission unit (MTU)** settings for neighboring router interfaces **don't match**. If the router with the higher MTU sends a packet larger than the MTU set on the neighboring router, the neighboring router ignores the packet. When

**NEW QUESTION 422**

- (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 424

- (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 426

- (Exam Topic 2)

Refer to the exhibit.

```
*Jun 24 08:54:51.530: IF-EvD(GigabitEthernet0/0): IP Routing reports state transition from DOWN to DOWN
*Jun 24 08:54:52.525: %LINEPROTO-5-UPDOWN: Line protocol on Interface GigabitEthernet0/0, changed state to down
*Jun 24 08:54:52.528: IF-EvD(GigabitEthernet0/0): IP Routing reports state transition from DOWN to DOWN
*Jun 24 08:54:53.215: IF-EvD(GigabitEthernet0/0): IP Routing reports state transition from DOWN to DOWN
*Jun 24 08:54:54.998: %LINK-3-UPDOWN: Interface GigabitEthernet0/0, changed state to up
*Jun 24 08:54:55.006: IF-EvD(GigabitEthernet0/0): IP Routing reports state transition from DOWN to UP
*Jun 24 08:54:55.998: %LINEPROTO-5-UPDOWN: Line protocol on Interface GigabitEthernet0/0, changed state to up
```

R1 is connected with R2 via GigabitEthernet0/0, and R2 cannot ping R1. What action will fix the issue?

- A. Fix route dampening configured on the router.
- B. Replace the SFP module because it is not supported.
- C. Fix IP Event Dampening configured on the interface.
- D. Correct the IP SLA probe that failed.

**Answer: C**

#### Explanation:

The IP Event Dampening feature introduces a configurable exponential decay mechanism to suppress the effects of excessive interface flapping events on routing protocols and routing tables in the network. This feature allows the network operator to configure a router to automatically identify and selectively dampen a local interface that is flapping.

#### NEW QUESTION 428

- (Exam Topic 2)

```
R1
interface Loopback0
 ip address 172.16.1.1 255.255.255.255
interface FastEthernet0/0
 ip address 192.168.12.1 255.255.255.0
router eigrp 100
 no auto-summary
 network 192.168.12.0
 network 172.16.0.0
 neighbor 192.168.12.2 FastEthernet0/0

R2
interface Loopback0
 ip address 172.16.2.2 255.255.255.255
interface FastEthernet0/0
 ip address 192.168.12.2 255.255.255.0
router eigrp 100
 network 192.168.12.0
 network 172.16.0.0
 neighbor 192.168.12.1 FastEthernet0/0
 passive-interface FastEthernet0/0
```

Refer to the exhibit. R1 and R2 cannot establish an EIGRP adjacency. Which action establishes EIGRP adjacency?

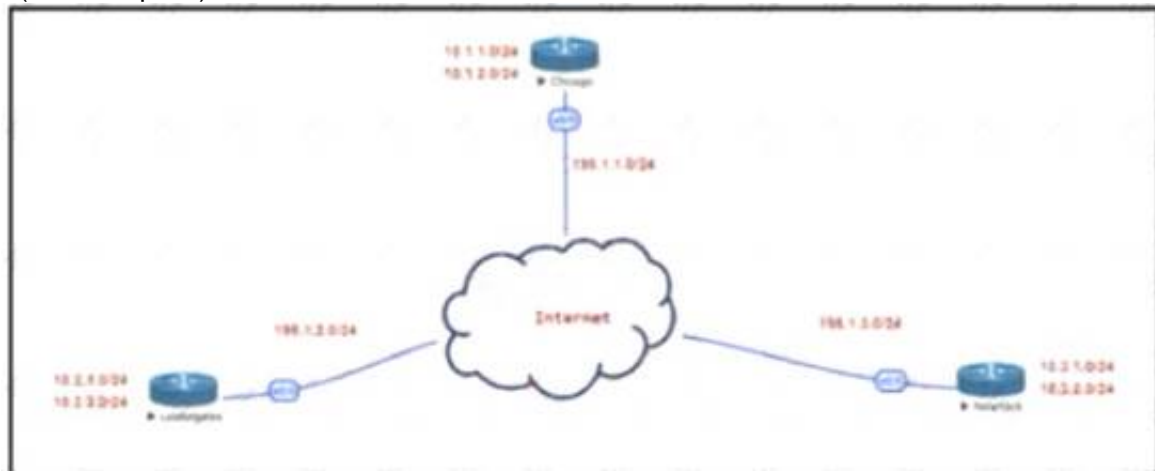
- A. Remove the current autonomous system number on one of the routers and change to a different value.
- B. Remove the passive-interface command from the R2 configuration so that it matches the R1 configuration.
- C. Add the no auto-summary command to the R2 configuration so that it matches the R1 configuration.
- D. Add the passive-interface command to the R1 configuration so that it matches the R2 configuration.



Answer: B

#### NEW QUESTION 431

- (Exam Topic 2)



```
Chicago

interface Tunnel 1
ip address 192.168.1.1 255.255.255.0
tunnel source E0/0
tunnel mode gre multipoint
ip nhrp network-id 1
ip nhrp map multicast dynamic
no ip next-hop-self eigrp 111
tunnel protection ipsec profile IPsec-PROFILE
!
router eigrp 111
network 192.168.1.0
network 10.0.0.0
```

Refer to the exhibit. The Los Angeles and New York routers are receiving routes from Chicago but not from each other Which configuration fixes the issue?

- A. Interface Tunnel1no ip split-horizon eigrp 111
- B. Interface Tunnel1ip next-hop-self eigrp 111
- C. Interface Tunnel1 tunnel mode ipsec ipv4
- D. Interface Tunnel1tunnel protection ipsec profile IPsec-PROFILE

Answer: A

#### Explanation:

In this topology, Chicago router (Hub) will receive advertisements from Los Angeles (Spoke1) router on its tunnel interface. The problem here is that it also has a connection with New York (Spoke2) on that same tunnel interface. If we don't disable EIGRP split-horizon, then the Hub will not relay routes from Spoke1 to Spoke2 and the other way around. That is because it received those routes on interface Tunnel1 and therefore it cannot advertise back out that same interface (splithorizon rule). Therefore we must disable split-horizon on the Hub router to make sure the Spokes know about each other.

#### NEW QUESTION 435

- (Exam Topic 2)

How does an MPLS Layer 3 VPN function?

- A. set of sites use multiprotocol BGP at the customer site for aggregation
- B. multiple customer sites interconnect through service provider network to create secure tunnels between customer edge devices
- C. set of sites interconnect privately over the Internet for security
- D. multiple customer sites interconnect through a service provider network using customer edge to provider edge connectivity

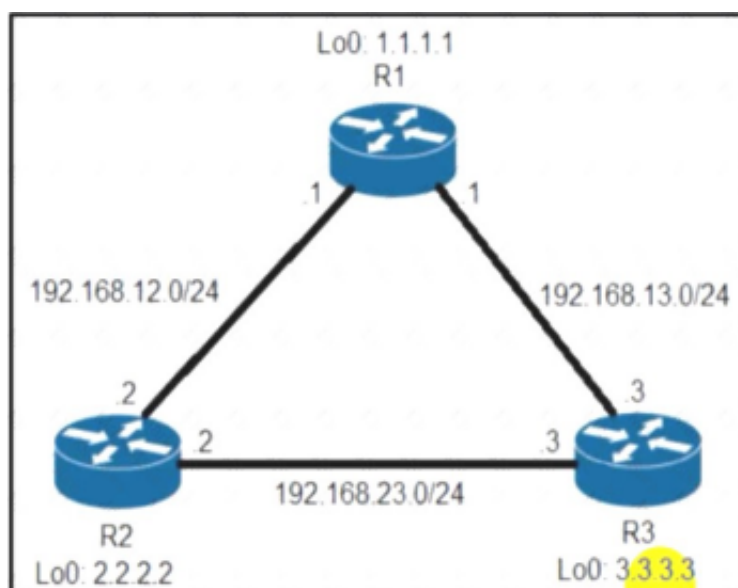
Answer: D

#### Explanation:

A Multiprotocol Label Switching(MPLS) Layer 3 Virtual Private Network (VPN) consists of a set of sites that are interconnected by means of an MPLS provider core network. At each customer site, one or more customer edge (CE) routers attach to one or more provider edge (PE) routers. Reference:  
[https://www.cisco.com/c/en/us/td/docs/routers/asr9000/software/asr9k-r6-5/lxvpn/configuration/guide/b-l3vpn-cg-asr9000-65x/b-l3vpn-cg-asr9000-65x\\_chapter\\_010.pdf](https://www.cisco.com/c/en/us/td/docs/routers/asr9000/software/asr9k-r6-5/lxvpn/configuration/guide/b-l3vpn-cg-asr9000-65x/b-l3vpn-cg-asr9000-65x_chapter_010.pdf)

#### NEW QUESTION 439

- (Exam Topic 2)



```
R2#show ip protocols | include eigrp
Maximum path 4
Maximum hopcount 100
Maximum metric variance 1

R2#show ip eigrp topology 192.168.13.0/24
EIGRP-IPv4 Topology Entry for AS(1)/ID(2.2.2.2) for 192.168.13.0/24
State is Passive, Query origin flag is 1, 1 Successor(s), FD is 1075200
Descriptor Blocks
192.168.23.3 (FastEthernet0/1), from 192.168.23.3, Send flag is 0x0
Composite metric is (1075200/281600), route is Internal
Vector metric:
Minimum bandwidth is 2500 Kbit
Total delay is 2000 microseconds
Reliability is 255/255
Load is 255/255
Minimum MTU is 1500
Hop count is 1
Originating router is 3.3.3.3
192.168.12.1 (FastEthernet0/0), from 192.168.12.1, Send flag is 0x0
Composite metric is (2611200/281600), route is Internal
Vector metric:
Minimum bandwidth is 1000 Kbit
Total delay is 2000 microseconds
Reliability is 255/255
Load is 1/255
Minimum MTU is 1500
Hop count is 1
Originating router is 1.1.1.1

R2#show ip route 192.168.13.0
Routing entry for 192.168.13.0/24
Known via "eigrp 1", distance 90, metric 1075200, type internal
Redistributing via eigrp 1
Last update from 192.168.23.3 on FastEthernet0/1, 00:00:57 ago
Routing Descriptor Blocks
* 192.168.23.3, from 192.168.23.3, 00:00:57 ago, via FastEthernet0/1
Route metric is 1075200, traffic share count is 1
Total delay is 2000 microseconds, minimum bandwidth is 2500 Kbit
Reliability 255/255, minimum MTU 1500 bytes
Loading 255/255, Hops 1
```

Refer to the exhibit. R2 has two paths to reach 192.168.13.0/24, but traffic is sent only through R3. Which action allows traffic to use both paths?

- A. Configure the bandwidth 2000 command under interface FastEthernet0/0 on R2.
- B. Configure the variance 4 command under the EIGRP process on R2.
- C. Configure the delay 1 command under interface FastEthernet0/0 on R2.
- D. Configure the variance 2 command under the EIGRP process on R2.

**Answer: B**

#### Explanation:

From the output of the "show ip eigrp topology ..." command, we notice network 192.168.13.0/24 was learned via two routes: + From 192.168.23.3 (R3) with FD = 1075200 and AD = 281600 + From 192.168.12.1 (R1) with FD = 2611200 and AD = 281600

From the output of the "show ip route ..." command, we learned that the best (and chosen) path is via 192.168.23.3 (R3).

To use both paths (called unequal cost load balancing) with EIGRP, the second path via R1 must satisfy the feasibility condition. The feasibility condition states that, the Advertised Distance (AD) of a route must be lower than the feasible distance of the current successor route.

In this case, the second path satisfies the feasible condition as its AD (281600) is smaller than the FD (1075200) of the best path. Therefore we can configure loadbalancing with "variance" command.

In other words, EIGRP will install all paths with metric < variance \* best\_metric into the local routing table, provided that it meets the feasibility condition to prevent routing loop. Therefore we can calculate the variance

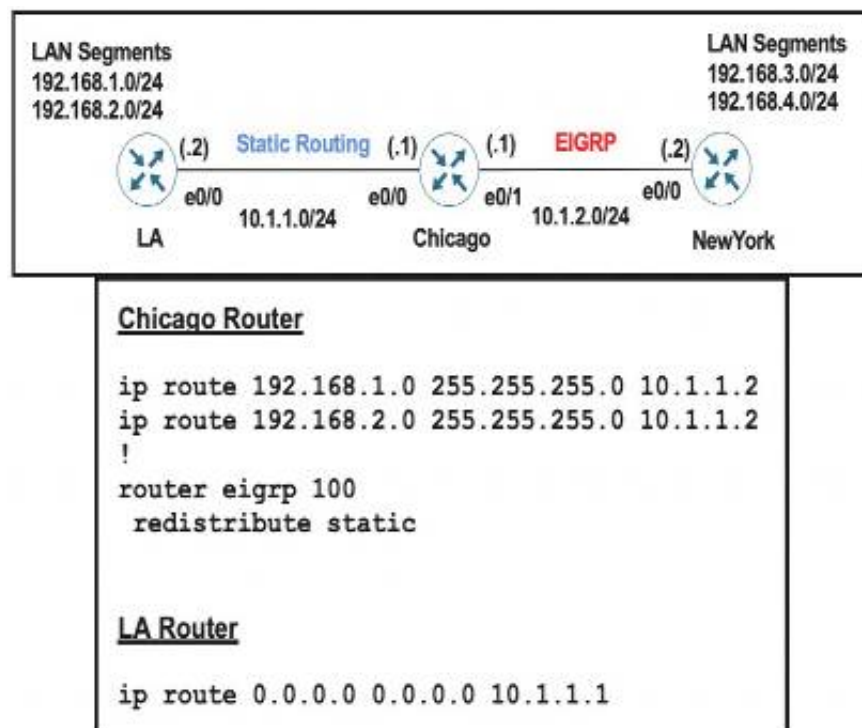
> metric / best\_metric = 2611200 / 1075200 = 2.4.

So with a variance greater than 2 (and must be an integer), we can load balance traffic to network 192.168.13.0/24.

#### NEW QUESTION 440

- (Exam Topic 2)

Refer to the exhibits.



A user on the 192.168.1.0/24 network can successfully ping 192.168.3.1, but the administrator cannot ping 192.168.3.1 from the LA router. Which set of configurations fixes the issue?

A)

**Chicago Router**

```
router eigrp 100
 redistribute static metric 10 10 10 10 10
```

B)

**Chicago Router**

```
router eigrp 100
 redistribute connected
```

C)

**Chicago Router**

```
ip route 192.168.3.0 255.255.255.0 10.1.2.2
ip route 192.168.4.0 255.255.255.0 10.1.2.2
```

D)

**LA Router**

```
ip route 192.168.3.0 255.255.255.0 10.1.1.1
ip route 192.168.4.0 255.255.255.0 10.1.1.1
```

A. Option A

B. Option B

C. Option C

D. Option D

**Answer: B**

#### NEW QUESTION 444

- (Exam Topic 2)

An engineer configured SNMP notifications sent to the management server using authentication and encrypting data with DES. An error in the response PDU is received as "UNKNOWNUSERNAME. WRONGDIGEST". Which action resolves the issue?

- A. Configure the correct authentication password using SNMPv3 authPriv .
- B. Configure the correct authentication password using SNMPv3 authNoPriv.
- C. Configure correct authentication and privacy passwords using SNMPv3 authNoPriv.
- D. Configure correct authentication and privacy passwords using SNMPv3 authPriv.

**Answer: D**

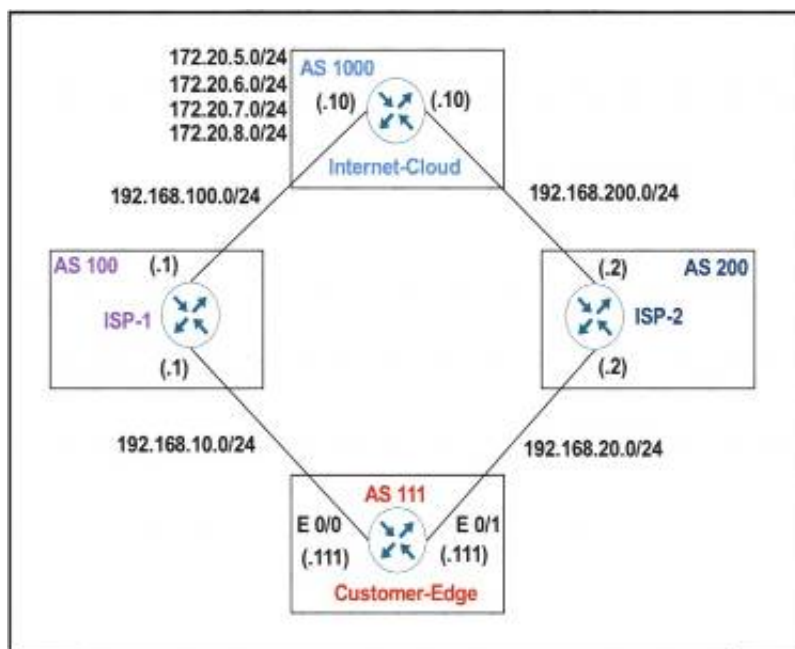
**Explanation:**

<https://www.cisco.com/c/en/us/td/docs/ios-xml/ios/snmp/configuration/xr-3se/3850/snmp-xr-3se-3850-book/nm>

#### NEW QUESTION 447

- (Exam Topic 2)

Refer to Exhibit:



### Customer-Edge

```
ip prefix-list PLIST1 permit 172.20.5.0/24
!
route-map SETLP permit 10
 match ip address prefix-list PLIST1
 set local-preference 90
!
router bgp 111
 neighbor 192.168.10.1 remote-as 100
 neighbor 192.168.10.1 route-map SETLP in
 neighbor 192.168.20.2 remote-as 200
```

AS 111 wanted to use AS 200 as the preferred path for 172.20.5.0/24 and AS 100 as the backup. After the configuration, AS 100 is not used for any other routes. Which configuration resolves the issue?

- A. route-mmap SETLP permit 10 match ip address prefix-list PLIST1 set local-preference 99route-map SETLP permit 20
- B. route-map SETLP permit 10match ip address prefix-list PLIST1 set local-preference 110route-map SETLP permit 20
- C. router bgp 111no neighbor 192.168.10.1 route-map SETLP in neighbor 192.168.10.1 route-map SETLP out
- D. router bap 111no neighbor 192.168.10.1 route-map SETLP in neighbor 192.168.20.2 route-map SE TLP in

**Answer: A**

### Explanation:

There is an implicit deny all at the end of any route-map so all other traffic that does not match 172.20.5.0/24 would be dropped. Therefore we have to add a permitsequence at the end of the route-map to allow other traffic.

The default value of Local Preference is 100 and higher value is preferred so we have to set the local preference of AS100 lower than that of AS200.

### NEW QUESTION 449

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