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Exam Code: 300-410
Exam Name: Implementing Cisco Enterprise Advanced Routing and Services (ENARSI)



Exam A

QUESTION 1

Refer to the exhibit.

```
config t
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 exporter EXPORTER-1
destination 172.16.10.2
transport udp 90
exit
!
flow monitor FLOW-MONITOR-1
record v4_r1
exit
!
ip cef
!
interface Ethernet0/0.1
ip address 172.16.6.2 255.255.255.0
ip flow monitor FLOW-MONITOR-1 input
!
```



Why is the remote NetFlow server failing to receive the NetFlow data?

- A. The flow exporter is configured but is not used.
- B. The flow monitor is applied in the wrong direction.
- C. The flow monitor is applied to the wrong interface.
- D. The destination of the flow exporter is not reachable.

Correct Answer: A

Section:

QUESTION 2

Refer to the exhibit.

```
!
neighbor 10.222.1.1 route-map SET-WEIGHT in
neighbor 10.222.1.1 remote-as 1
!
ip as-path access-list 200 permit ^690$
ip as-path access-list 200 permit ^1800
!
route-map SET-WEIGHT permit 10
match as-path 200
set local-preference 250
set weight 200
```

A router receiving BGP routing updates from multiple neighbors for routers in AS 690. What is the reason that the router still sends traffic that is destined to AS 690 to a neighbor other than 10.222.1.1?

- A. The local preference value in another neighbor statement is higher than 250.
- B. The local preference value should be set to the same value as the weight in the route map.
- C. The route map is applied in the wrong direction.
- D. The weight value in another neighbor statement is higher than 200.

Correct Answer: C

Section:

QUESTION 3

```
router# show ip route
....
D 192.168.32.0/19 [90/25789217] via 10.1.1.1
R 192.168.32.0/24 [120/4] via 10.1.1.2
O 192.168.32.0/26 [110/229840] via 10.1.1.3
```



Refer to the exhibit. an engineer is trying to get 192.168.32.100 forwarded through 10.1.1.1, but it was forwarded through 10.1.1.2. What action forwards the packets through 10.1.1.1?

- A. Configure EIGRP to receive 192.168.32.0 route with lower admin distance.
- B. A. Configure EIGRP to receive 192.168.32.0 route with longer prefix than /19.
- C. A. Configure EIGRP to receive 192.168.32.0 route with lower metric.
- D. A. Configure EIGRP to receive 192.168.32.0 route with equal or longer prefix than /24.

Correct Answer: D

Section:

QUESTION 4

DRAG DROP

Drag and drop the addresses from the left onto the correct IPv6 filter purposes on the right.

Select and Place:

<pre>permit ip 2001:d8b:800:200c::/117 2001:0DBB:800:2010::/64 eq 443</pre>	<pre>Permit NTP from this source 2001:0D8B:0800:200c::1f</pre>
<pre>permit ip 2001:D88:800:200C::e/126 2001:0DBB:800:2010::/64 eq 514</pre>	<pre>Permit syslog from this source 2001:0D88:0800:200c::1c</pre>
<pre>permit ip 2001:d8b:800:200c::800/117 2001:0DBB:800:2010::/64 eq 80</pre>	<pre>Permit HTTP from this source 2001:0D8B:0800:200c::0ff</pre>
<pre>permit ip 2001:D8B:800:200C::c/126 2001:0DBB:800:2010::/64 eq 123</pre>	<pre>Permit HTTPS from this source 2001:0D8B:0800:200c::07ff</pre>

Correct Answer:

	<pre>permit ip 2001:D8B:800:200C::c/126 2001:0DBB:800:2010::/64 eq 123</pre>
	<pre>permit ip 2001:D88:800:200C::e/126 2001:0DBB:800:2010::/64 eq 514</pre>
	<pre>permit ip 2001:d8b:800:200c::800/117 2001:0DBB:800:2010::/64 eq 80</pre>
	<pre>permit ip 2001:d8b:800:200c::/117 2001:0DBB:800:2010::/64 eq 443</pre>

Section:

Explanation:

QUESTION 5

DRAG DROP

Drag and drop the DHCP messages from the left onto the correct uses on the right.



Select and Place:

<pre>DHCPACK</pre>	<pre>server-to-client communication, refusing the request for configuration parameters</pre>
<pre>DHCPINFORM</pre>	<pre>client-to-server communication, indicating that the network address is already in use</pre>
<pre>DHCPNAK</pre>	<pre>server-to-client communication with configuration parameters, including committed network address</pre>
<pre>DHCPDECLINE</pre>	<pre>client-to-server communication, asking for only local configuration parameters that the client has already externally configured as an address</pre>

Correct Answer:



Section:

Explanation:

Reference:

<https://www.cisco.com/c/en/us/support/docs/ip/dynamic-address-allocation-resolution/27470-100.html>

QUESTION 6

DRAG DROP

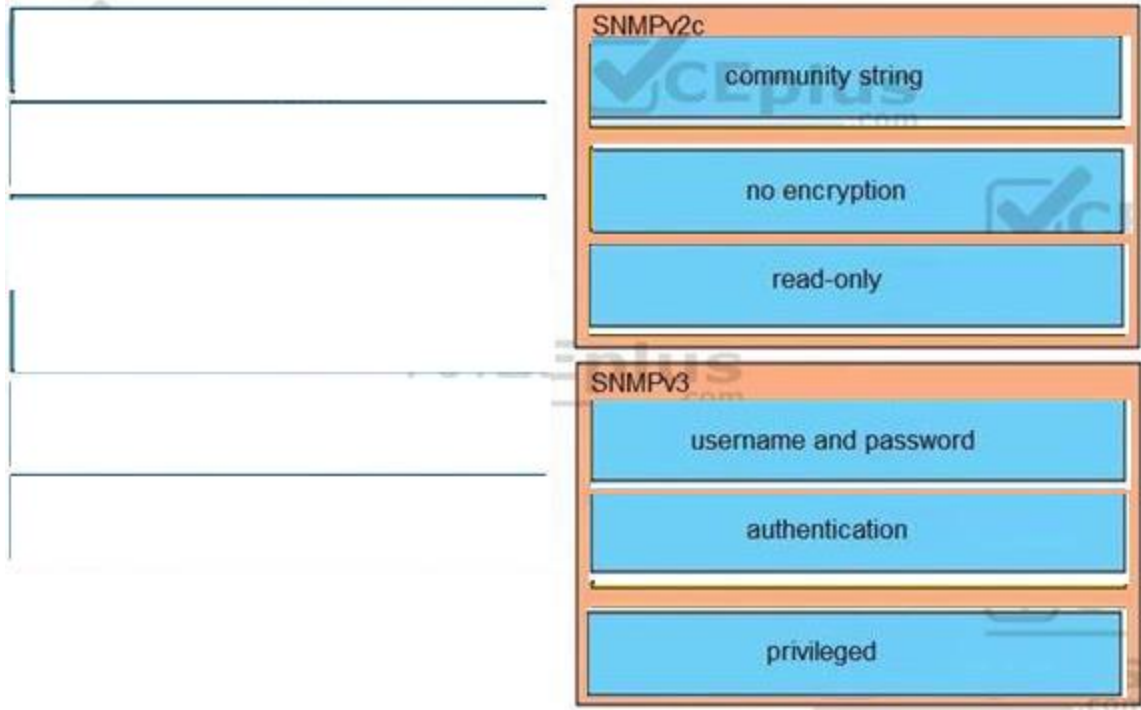
Drag and drop the SNMP attributes in Cisco IOS devices from the left onto the correct SNMPv2c or SNMPv3 categories on the right.

Select and Place:

The interface shows six blue boxes on the left containing the following attributes: community string, username and password, authentication, no encryption, privileged, and read-only. On the right, there are two orange-bordered boxes. The top box is labeled 'SNMPv2c' and contains three empty yellow rectangular slots. The bottom box is labeled 'SNMPv3' and contains three empty yellow rectangular slots. A watermark 'CEplus.com' is visible in the bottom right of the SNMPv3 box.



Correct Answer:



Section:

Explanation:

QUESTION 7

DRAG DROP

Drag and drop the MPLS VPN device types from the left onto the definitions on the right.



Select and Place:

Customer (C) device	device in the core of the provider network that switches MPLS packets
CE device	device that attaches and detaches the VPN labels to the packets in the provider network
PE device	device in the enterprise network that connects to other customer devices
Provider (P) device	device at the edge of the enterprise network that connects to the SP network

Correct Answer:

	Provider (P) device
	PE device
	Customer (C) device
	CE device

Section:

Explanation:

QUESTION 8

DRAG DROP

Drag and drop the actions from the left into the correct order on the right to configure a policy to avoid following packet forwarding based on the normal routing path.

Select and Place:

Configure route map instances.	step 1
Configure set commands.	step 2
Configure fast switching for PBR.	step 3
Configure ACLs.	step 4
Configure match commands.	step 5
Configure PBR on the interface.	step 6



Correct Answer:

	Configure ACLs.
	Configure route map instances.
	Configure match commands.
	Configure set commands.
	Configure PBR on the interface.
	Configure fast switching for PBR.

Section:

Explanation:

Reference: <https://community.cisco.com/t5/networking-documents/how-to-configure-pbr/ta-p/3122774>

QUESTION 9

DRAG DROP

```

aaa new-model
aaa authentication login default none
aaa authentication login telnet local
!
username cisco password 0 ocsic
!
line vty 0
 password LetMeIn
 login authentication telnet
 transport input telnet
line vty 1
 password LetMeIn
 transport input telnet

```

Refer to the exhibit. Drag and drop the credentials from the left onto the remote login information on the right to resolve a failed login attempt to vtys. Not all credentials are used.

Select and Place:

no password	vty0
ocsic	
no username	vty1
LetMeIn <input checked="" type="checkbox"/>	
cisco	
LetMeIn	



Correct Answer:

	vty0
	vty1
LetMeIn <input checked="" type="checkbox"/>	
LetMeIn	

Section:

Explanation:

QUESTION 10

DRAG DROP

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

Select and Place:

assigns labels to unlabeled packets	Label Switch Router
performs penultimate hop popping	
handles traffic between multiple VPNs	Label Edge Router
reads the labels and forwards the packet based on the labels	

Correct Answer:

	Label Switch Router
	reads the labels and forwards the packet based on the labels
	performs penultimate hop popping
	Label Edge Router
	handles traffic between multiple VPNs
	assigns labels to unlabeled packets

Section:

Explanation:

QUESTION 11

DRAG DROP

Drag and drop the LDP features from the left onto the descriptions on the right.

Select and Place:

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

Correct Answer:

	entropy label
	implicit null label
	explicit null label
	inbound label binding filter

Section:

Explanation:

QUESTION 12

DRAG DROP

Drag and drop the IPv6 first hop security device roles from the left onto the corresponding descriptions on the right.

Select and Place:

host	Receives router advertisements from valid routers, and no router solicitation are received.
router	Receives router solicitation and sends router advertisements.
monitor	Receives valid and rogue router advertisements and all router solicitation.
switch	Received router advertisements are trusted and are flooded to synchronize states.

Correct Answer:

	router
	host
	switch
	monitor

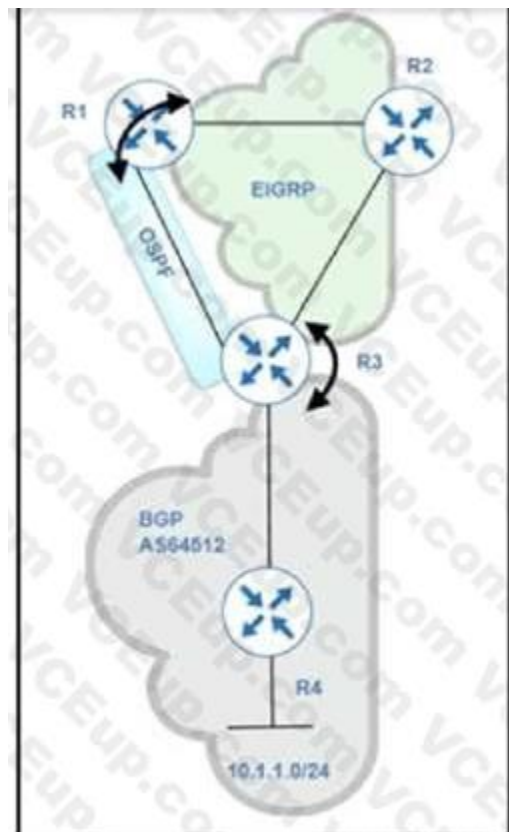
Section:

Explanation:

Reference: https://www.cisco.com/c/en/us/td/docs/switches/datacenter/nexus9000/sw/7x/security/configuration/guide/b_Cisco_Nexus_9000_Series_NX-OS_Security_Configuration_Guide_7x/b_Cisco_Nexus_9000_Series_NX-OS_Security_Configuration_Guide_7x_chapter_011011.pdf

QUESTION 13

Refer to exhibit.



 **vdumps**

Routing protocols are mutually redistributed on R3 and R1. Users report intermittent connectivity to services hosted on the 10.1.1.0/24 prefix. Significant routing update changes are noticed on R3 when the show ip route profile command is run. How must the services be stabilized?

- A. The issue with using BGP must be resolved by using another protocol and redistributing it into EIGRP on R3
- B. The routing loop must be fixed by reducing the admin distance of iBGP from 200 to 100 on R3
- C. The routing loop must be fixed by reducing the admin distance of OSPF from 110 to 80 on R3
- D. The issue with using iBGP must be fixed by running eBGP between R3 and R4

Correct Answer: B

Section:

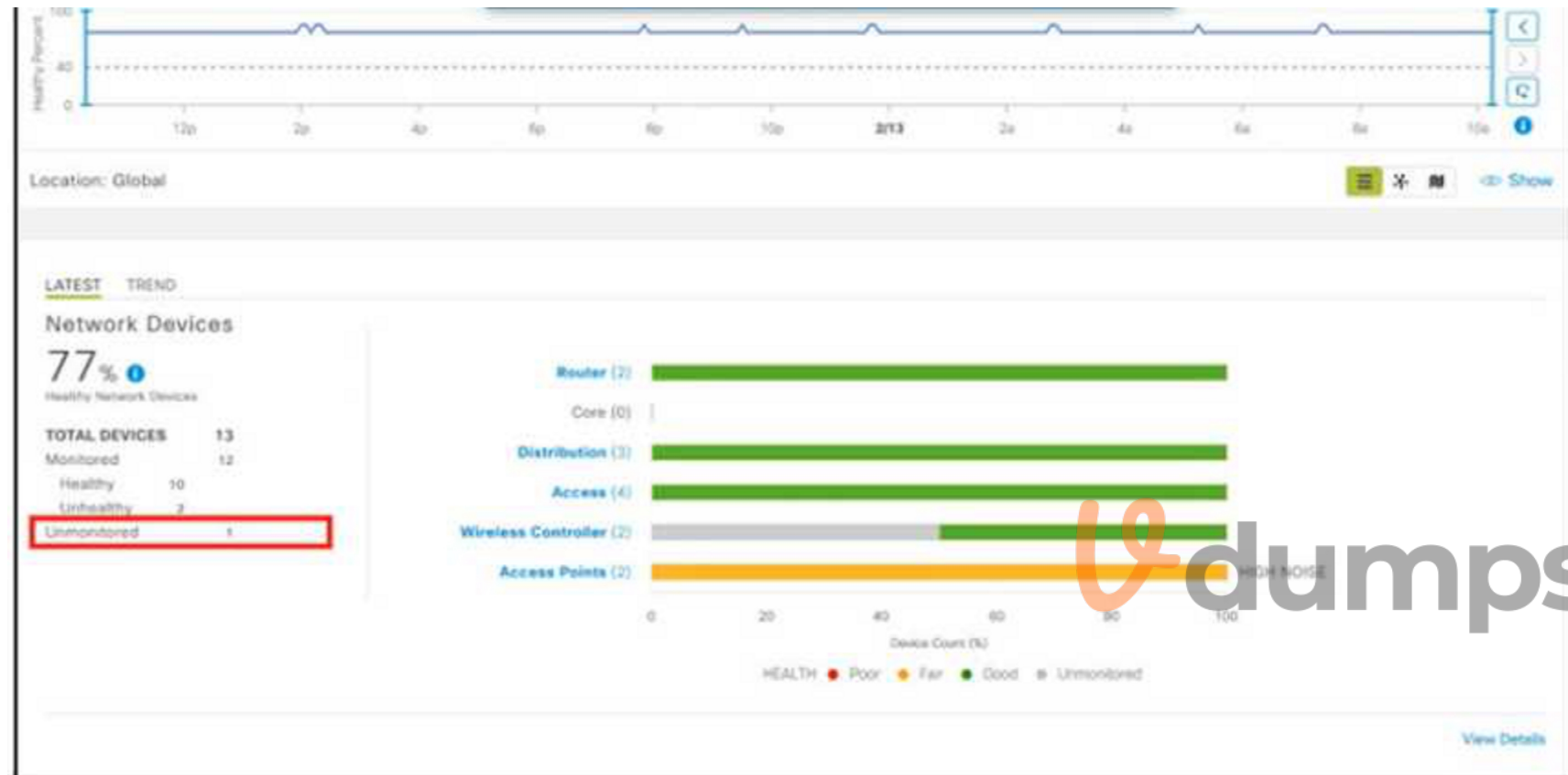
Explanation:

After redistribution, R3 learns about network 10.1.1.0/24 via two paths: + Internal BGP (IBGP): advertised from R4 with AD of 200 (and metric of 0) + OSPF: advertised from R1 with AD of 110 (O E2) (and metric of 20) Therefore R3 will choose the path with the lower AD via OSPF But this is a looped path which is received from R3 -> R2 -> R1 -> R3. So when the advertised route from R4 is expired, the looped path is also expired soon and R3 will reinstall the main path from R4.

This is the cause of intermittent connectivity. In order to solve this issue, we can lower the AD of iBGP to a value which is lower than 110 so that it is preferred over OSPF-advertised route.

QUESTION 14

Refer to Exhibit.



A network administrator added one router in the Cisco DNA Center and checked its discovery and health from the Network Health Dashboard. The network administrator observed that the router is still showing up as unmonitored. What must be configured on the router to mount it in the Cisco DNA Center?

- A. Configure router with NetFlow data
- B. Configure router with the telemetry data
- C. Configure router with routing to reach Cisco DNA Center
- D. Configure router with SNMPv2c or SNMPv3 traps

Correct Answer: B

Section:

Explanation:

Unmonitored: Unmonitored devices are devices for which Assurance did not receive any telemetry data during the specified time range.

QUESTION 15

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

Correct Answer: D

Section:

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/networkautomation-and-management/dna-center-assurance/1-2-10/b_cisco_dna_assurance_1_2_10_ug/b_cisco_dna_assurance_1_2_10_ug_chapter_01101.html

QUESTION 16

Refer to Exhibit.

```

Jan 9 15:29:29.713: DHCP_SNOOPING: process new DHCP packet, message type: DHCPINFORM, input interface: Po2, MAC da: ffff.ffff.ffff, DHCP yiaddr: 0.0.0.0, DHCP siaddr: 0.0.0.0, DHCP giaddr: 0.0.0.0
Jan 9 15:29:29.713: DHCP_SNOOPING_SW: bridge packet get invalid mat entry: FFFF.FFFF.FFFF, packet is flooded to ingress VLAN: (1)
Jan 9 15:29:29.722: DHCP_SNOOPING_SW: bridge packet send packet to cpu port: Vlan1.
Jan 9 15:29:31.509: DHCP_SNOOP(hlrm_set_if_input): Setting if_input to Po2 for pak. Was V11
Jan 9 15:29:31.509: DHCP_SNOOP(hlrm_set_if_input): Setting if_input to V11 for pak. Was Po2
Jan 9 15:29:31.509: DHCP_SNOOP(hlrm_set_if_input): Setting if_input to Po2 for pak. Was V11
Jan 9 15:29:31.517: DHCP_SNOOPING: received new DHCP packet from input interface (Port-channel2)

```

A network administrator enables DHCP snooping on the Cisco Catalyst 3750-X switch and configures the uplink port (Port-channel2) as a trusted port. Clients are not receiving an IP address, but when DHCP snooping is disabled, clients start receiving IP addresses. Which global command resolves the issue?

- A. No ip dhcp snooping information option
- B. ip dhcp snooping
- C. ip dhcp relay information trust portchannel2
- D. ip dhcp snooping trust

Correct Answer: A

Section:

QUESTION 17

Which configuration feature should be used to block rogue router advertisements instead of using the IPv6 Router Advertisement Guard feature?

- A. VACL blocking broadcast frames from nonauthorized hosts
- B. PVLANS with promiscuous ports associated to route advertisements and isolated ports for nodes
- C. PVLANS with community ports associated to route advertisements and isolated ports for nodes
- D. IPv4 ACL blocking route advertisements from nonauthorized hosts

Correct Answer: B

Section:

Explanation:

The IPv6 Router Advertisement Guard feature provides support for allowing the network administrator to block or reject unwanted or rogue router advertisement guard messages that arrive at the network device platform.

Router

Advertisements are used by devices to announce themselves on the link. The IPv6 Router Advertisement Guard feature analyzes these router advertisements and filters out router advertisements that are sent by unauthorized devices.

Certain switch platforms can already implement some level of rogue RA filtering by the administrator configuring Access Control Lists (ACLs) that block RA ICMP messages that might be inbound on "user" ports.

Reference: <https://datatracker.ietf.org/doc/html/rfc6104>

QUESTION 18

Refer to the exhibit.

```
Router#show running-config | include ip route
ip route 192.168.2.2 255.255.255.255 209.165.200.225 130
Router#show ip route
<output omitted>
Gateway of last resort is not set
  C   192.168.1.0/32 is subnetted, 1 subnets
      C   192.168.1.1 is directly connected, Loopback0
  O   192.168.2.0/32 is subnetted, 1 subnets
      O   192.168.2.2[110/11] via 192.168.12.2, 00:52:09, Ethernet0/0
  C   192.168.12.0/24 is variably subnetted, 2 subnets, 2 masks
      C   192.168.12.0/24 is directly connected, Ethernet0/0
      L   192.168.12.1/32 is directly connected, Ethernet0/0
  L   209.165.200.0/24 is variably subnetted, 2 subnets, 2 masks
      C   209.165.200.0/24 is directly connected, Ethernet0/1
      C   209.165.200.226/32 is directly connected, Ethernet0/1
```

An engineer configures a static route on a router, but when the engineer checks the route to the destination, a different next hop is chosen. What is the reason for this?

- A. Dynamic routing protocols always have priority over static routes.
- B. The metric of the OSPF route is lower than the metric of the static route.
- C. The configured AD for the static route is higher than the AD of OSPF.
- D. The syntax of the static route is not valid, so the route is not considered.

Correct Answer: C

Section:

Explanation:

The AD of static route is manually configured to 130 which is higher than the AD of OSPF router which is 110.

QUESTION 19

Refer to the exhibit.

```

Router#show ip route
<output omitted>
Gateway of last resort is not set

  192.168.1.0/32 is subnetted, 1 subnets
O       192.168.1.1 [110/11] via 192.168.12.1, 16:56:40, Ethernet0/0
  192.168.2.0/24 is variably subnetted, 2 subnets, 2 masks
C       192.168.2.0/24 is directly connected, Loopback0
L       192.168.2.2/32 is directly connected, Loopback0
  192.168.3.0/24 is variably subnetted, 2 subnets, 2 masks
C       192.168.3.0/24 is directly connected, Ethernet0/1
L       192.168.3.1/32 is directly connected, Ethernet0/1
  192.168.12.0/24 is variably subnetted, 2 subnets, 2 masks
C       192.168.12.0/24 is directly connected, Ethernet0/0
L       192.168.12.2/32 is directly connected, Ethernet0/0
Router#show running-config | section ospf
router ospf 1
summary-address 10.0.0.0 255.0.0.0
redistribute static subnets
network 192.168.3.0 0.0.0.255 area 0
network 192.168.12.0 0.0.0.255 area 0
Router#

```



An engineer is trying to generate a summary route in OSPF for network 10.0.0.0/8, but the summary route does not show up in the routing table. Why is the summary route missing?

- A. The summary-address command is used only for summarizing prefixes between areas.
- B. The summary route is visible only in the OSPF database, not in the routing table.
- C. There is no route for a subnet inside 10.0.0.0/8, so the summary route is not generated.
- D. The summary route is not visible on this router, but it is visible on other OSPF routers in the same area.

Correct Answer: C

Section:

Explanation:

The ?summary-address? is only used to create aggregate addresses for OSPF at an autonomous system boundary. It means this command should only be used on the ASBR when you are trying to summarize externally redistributed routes from another protocol domain or you have a NSSA area.

But a requirement to create a summarized route is:

?The ASBR compares the summary route's range of addresses with all routes redistributed into OSPF on that ASBR to find any subordinate subnets (subnets that sit inside the summary route range). If at least one subordinate subnet exists, the ASBR advertises the summary route.?

QUESTION 20

Refer to the exhibit.

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

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

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

Correct Answer: B

Section:

QUESTION 21

What is a prerequisite for configuring BFD?

- A. Jumbo frame support must be configured on the router that is using BFD.
- B. All routers in the path between two BFD endpoints must have BFD enabled.
- C. Cisco Express Forwarding must be enabled on all participating BFD endpoints.
- D. To use BFD with BGP, the timers 3 9 command must first be configured in the BGP routing process.

Correct Answer: C

Section:

Explanation:

Reference:

https://www.cisco.com/c/en/us/td/docs/ios/12_0s/feature/guide/fs_bfd.html#wp1043332

QUESTION 22

Refer to the exhibit.




```

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

Network Next Hop Metric LocPrf Weight Path
*> 172.16.25.0/24 209.165.200.225 0 32768 7
R1#

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

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

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

```



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

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

Correct Answer: A

Section:

QUESTION 23

Refer to the exhibit.

```

Router#sh ip route ospf
<output omitted>
Gateway is last resort is not set

  10.0.0.0/24 is subnetted, 1 subnets
    o E2   10.0.0.0 [110/20] via 192.168.12.2, 00:00:10, Ethernet0/0
    o     192.168.3.0/24 [110/20] via 192.168.12.2, 00:00:50, Ethernet0/0
Router#

Router#show ip bgp
<output omitted>
   Network        Next Hop        Metric      LocPrf        Weight        Path
>*  192.168.1.1/32    0.0.0.0          0             32768         ?
>*  192.168.3.0      192.168.12.2    20            32768         ?
>*  192.168.12.0     0.0.0.0          0             32768         ?
Router#show running-config | section router bgp
router bgp 65000
  bgp log-neighbor-changes
  redistribute ospf 1
Router#

```

An engineer is trying to redistribute OSPF to BGP, but not all of the routes are redistributed. What is the reason for this issue?

- A. By default, only internal routes and external type 1 routes are redistributed into BGP
- B. Only classful networks are redistributed from OSPF to BGP
- C. BGP convergence is slow, so the route will eventually be present in the BGP table
- D. By default, only internal OSPF routes are redistributed into BGP

Correct Answer: D

Section:

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 redistribute both internal and external (type-1 & type-2) OSPF routes via this command:

?Router(config-router)#redistribute ospf 1 match internal external 1 external 2?

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

QUESTION 24

Refer to the exhibit.

```

R200#show ip bgp summary
BGP router identifier 10.1.1.1, local AS number 65000
BGP table version is 26, main routing table version 26
1 network entries using 132 bytes of memory
1 path entries using 52 bytes of memory
2/1 BGP path/bestpath attribute entries using 296 bytes of memory
0 BGP route-map cache entries using 0 bytes of memory
0 BGP filter-list cache entries using 0 bytes of memory
Bitfield cache entries: current 1 (at peak 2) using 28 bytes of memory
BGP using 508 total bytes of memory
BGP activity 24/23 prefixes, 24/23 paths, scan interval 60 secs
Neighbor    V    AS MsgRcvd MsgSent   TblVer  InQ  OutQ  Up/Down  State/PfxRcd
192.0.2.2    4  65100 20335   20329    0  0   0 00:02:04  Idle (PfxCt)
R200#

```

In which circumstance does the BGP neighbor remain in the idle condition?

- A. if prefixes are not received from the BGP peer
- B. if prefixes reach the maximum limit
- C. if a prefix list is applied on the inbound direction
- D. if prefixes exceed the maximum limit

Correct Answer: D

Section:

Explanation:

<https://www.cisco.com/c/en/us/support/docs/ip/border-gateway-protocol-bgp/25160-bgpmaximum-prefix.html#b>

QUESTION 25

Which attribute eliminates LFAs that belong to protected paths in situations where links in a network are connected through a common fiber?

- A. shared-risk-link-group-disjoint
- B. linecard-disjoint
- C. lowest-repair-path-metric
- D. interface-disjoint

Correct Answer: A

Section:

Explanation:

Reference: https://www.cisco.com/c/en/us/td/docs/ios-xml/ios/iproute_eigrp/configuration/xeQuestions&AnswersPDF/P-183s/asr1000/ire-xe-3s-asr1000/ire-ipfrr.html

QUESTION 26

Refer to the exhibit.

```
* Jun 28 14:41:57: %BGP-5-ADJCHANGE: neighbor 192.168.2.2 Down User reset
* Jun 28 14:41:57: %BGP_SESSION-5-ADJCHANGE: neighbor 192.168.2.2 IPv4 Unicast
topology base removed from session User reset
* Jun 28 14:41:57: %BGP-5-ADJCHANGE: neighbor 192.168.2.2 Up
R1#show clock
*15:42:00.506 CET Fri Jun 28 2019
```

An engineer is troubleshooting BGP on a device but discovers that the clock on the device does not correspond to the time stamp of the log entries. Which action ensures consistency between the two times?

- A. Configure the service timestamps log uptime command in global configuration mode.
- B. Configure the logging clock synchronize command in global configuration mode.
- C. Configure the service timestamps log datetime localtime command in global configuration mode.
- D. Make sure that the clock on the device is synchronized with an NTP server.

Correct Answer: C

Section:

Explanation:

https://www.cisco.com/c/en/us/td/docs/routers/xr12000/software/xr12k_r3-9/system_management/command/reference/yr39xr12k_chapter4.html#wp1784026936 By default, syslog and debug messages are stamped by UTC, regardless of the time zone that device configured. You should append localtime key word to "service timestamp {log | debug} datetimemsec" global command to change that behavior.

<https://community.cisco.com/t5/networking-documents/router-log-timestamp-entries-are-different-from-the-system-clock/ta-p/3132258>

https://www.cisco.com/ELearning/bulk/public/tac/cim/cib/using_cisco_ios_software/cmdrefs/service_timestamps.htm

QUESTION 27

Refer to the exhibit.

```

R1#show policy-map control-plane
Control Plane
Service-policy input: CoPP-BGP
Class-map: BGP (match all)
 2716 packets, 172071 bytes
 5 minute offered rate 0000 bps, drop rate 0000 bps
Match: access-group name BGP
drop
Class-map: class-default (match-any)
 5212 packets, 655966 bytes
 5 minute offered rate 0000 bps, drop rate 0000 bps
Match: any

```

What is the result of applying this configuration?

- A. The router can form BGP neighborships with any other device.
- B. The router cannot form BGP neighborships with any other device.
- C. The router cannot form BGP neighborships with any device that is matched by the access list named "BGP".
- D. The router can form BGP neighborships with any device that is matched by the access list named "BGP".

Correct Answer: C

Section:

Explanation:

after bgp session are UP.I configured the CoPP to drop 10.3.3.3 bgp traffic (R3).

R3 bgp traffic that matched the ACL 100 is dropped and the state is in IDLE ----- access-list 100 permit tcp host 10.3.3.3 any eq bgp access-list 100 permit tcp host 10.3.3.3 eq bgp any ! class-map match-all class-bgp match access-group 100 ! policy-map policy-bgp class class-bgp drop ! control-plane service-policy input policy-bgp ! The 10.3.3.3 neighbor goes to IDLE

QUESTION 28

Which command displays the IP routing table information that is associated with VRF-Lite?

- A. show ip vrf
- B. show ip route vrf
- C. show run vrf
- D. show ip protocols vrf

Correct Answer: B

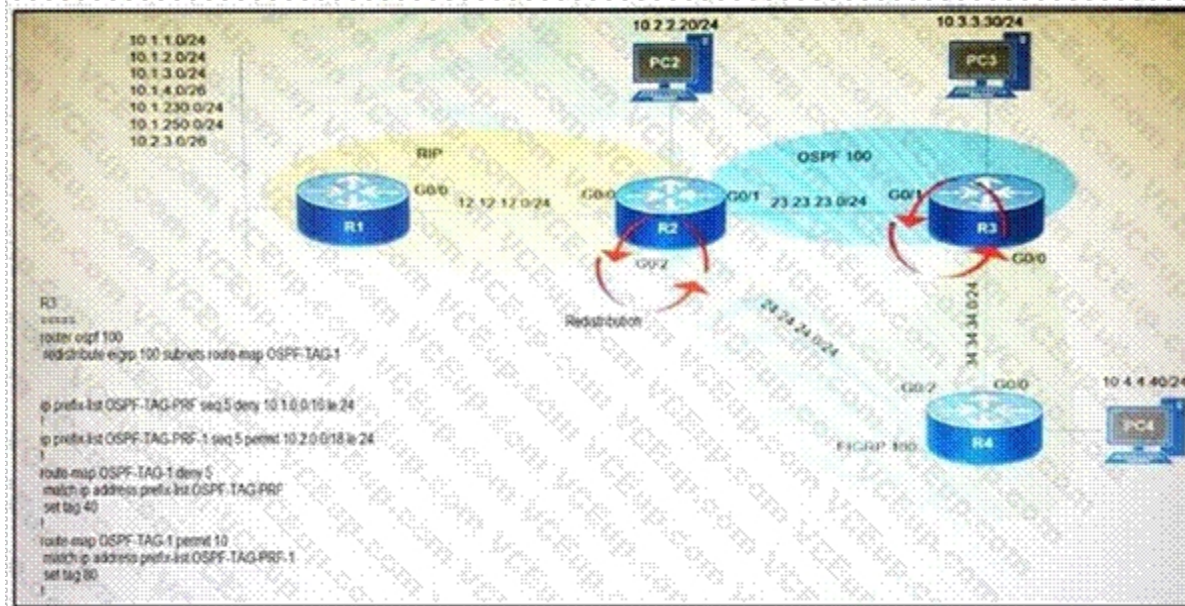
Section:

Explanation:

Reference: <https://www.cisco.com/c/en/us/td/docs/switches/lan/catalyst4500/12-2/50sg/configuration/guide/Wrapper-46SG/vrf.html#wp1045708>

QUESTION 29

Refer to the exhibit.



Which subnet is redistributed from EIGRP to OSPF routing protocols?

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

Correct Answer: A

Section:

QUESTION 30

Which configuration adds an IPv4 interface to an OSPFv3 process in OSPFv3 address family configuration?

- A. Router ospf3 1 address-family ipv4
- B. Router(config-router)#ospfv3 1 ipv4 area 0
- C. Router(config-if)#ospfv3 1 ipv4 area 0
- D. Router ospfv3 1 address-family ipv4 unicast

Correct Answer: C

Section:

Explanation:

Reference: https://www.cisco.com/c/en/us/td/docs/ios-xml/ios/iproute_ospf/configuration/x3-3s/iro-xe-3s-book/ip6-route-ospfv3-add-fam-xe.html

QUESTION 31

Refer to the exhibit.

```

R1(config)#route-map ADD permit 20
R1(config-route-map)#set tag 1

R1(config)#router ospf1
R1(config-router)#redistribute rip subnets route-map ADD
  
```

Which statement about R1 is true?



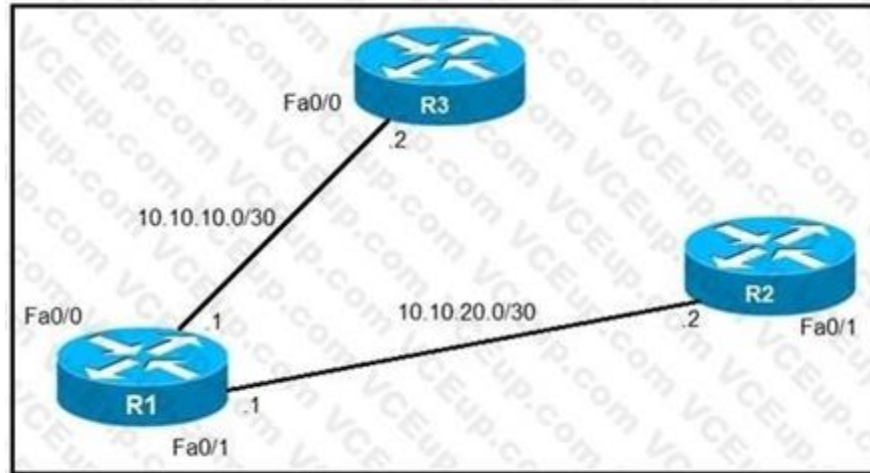
- A. OSPF redistributes RIP routes only if they have a tag of one.
- B. RIP learned routes are distributed to OSPF with a tag value of one.
- C. R1 adds one to the metric for RIP learned routes before redistributing to OSPF.
- D. RIP routes are redistributed to OSPF without any changes.

Correct Answer: B

Section:

QUESTION 32

Refer to the exhibit.



An IP SLA was configured on router R1 that allows the default route to be modified in the event that Fa0/0 loses reachability with the router R3 Fa0/0 interface. The route has changed to flow through router R2. Which debug command is used to troubleshoot this issue?

- A. debug ip flow
- B. debug ip sla error
- C. debug ip routing
- D. debug ip packet

Correct Answer: C

Section:

Explanation:

debug ip routing This command enables debugging messages related to the routing table.

QUESTION 33

Which configuration enabled the VRF that is labeled "Inet" on FastEthernet0/0?

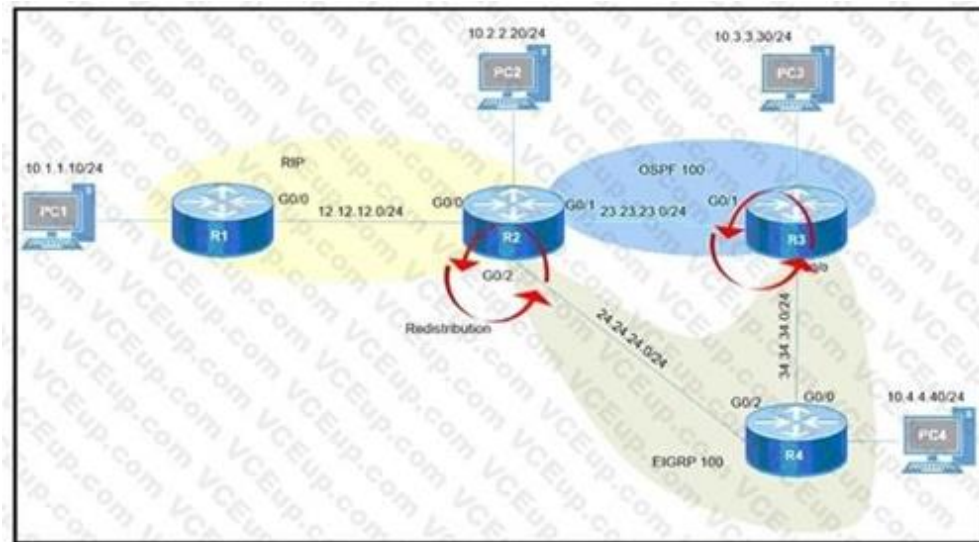
- A. R1(config)# ip vrf Inet
R1(config-vrf)#interface FastEthernet0/0
R1(config-if)#ip vrf forwarding Inet
- B. R1(config)#router ospf 1 vrf Inet
R1(config-router)#ip vrf forwarding FastEthernet0/0
- C. R1(config)#ip vrf Inet FastEthernet0/0
- D. R1(config)# ip vrf Inet
R1(config-vrf)#ip vrf FastEthernet0/0

Correct Answer: A

Section:

QUESTION 34

Refer to the exhibit.



After redistribution is enabled between the routing protocols; PC2, PC3, and PC4 cannot reach PC1. Which action can the engineer take to solve the issue so that all the PCs are reachable?

- A. Set the administrative distance 100 under the RIP process on R2.
- B. Filter the prefix 10.1.1.0/24 when redistributed from OSPF to EIGRP.
- C. Filter the prefix 10.1.1.0/24 when redistributed from RIP to EIGRP.
- D. Redistribute the directly connected interfaces on R2.



Correct Answer: A

Section:

QUESTION 35

Which command allows traffic to load-balance in an MPLS Layer 3 VPN configuration?

- A. multi-paths eibgp 2
- B. maximum-paths 2
- C. Maximum-paths ibgp 2
- D. multi-paths 2

Correct Answer: C

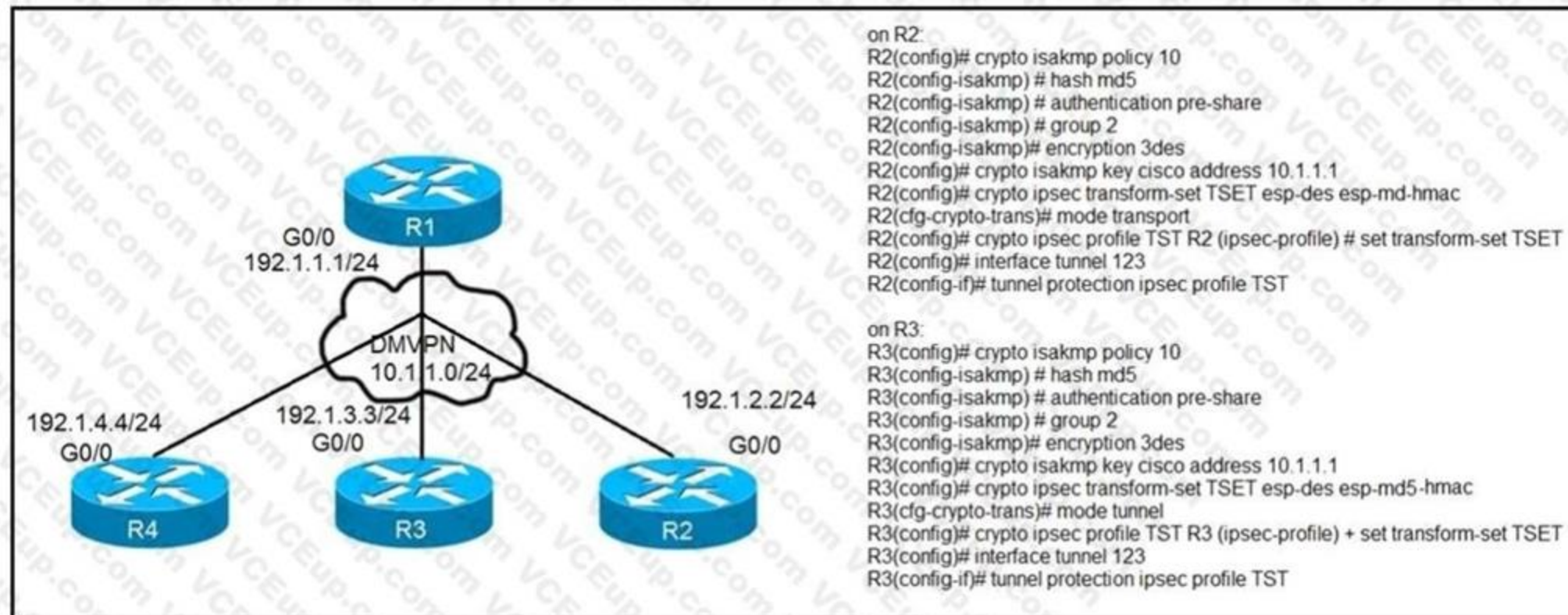
Section:

Explanation:

Reference: https://www.cisco.com/c/en/us/td/docs/switches/datacenter/sw/5_x/nxos/mpls/configuration/guide/mpls_cg/mp_vpn_multipath.html

QUESTION 36

Refer to the exhibit.



After applying IPsec, the engineer observed that the DMVPN tunnel went down, and both spoke-to-spoke and hub were not establishing. Which two actions resolve the issue? (Choose two.)

- A. Configure the crypto isakmp key cisco address 192.1.1.1 on R2 and R3
- B. Configure the crypto isakmp key cisco address 0.0.0.0 on R2 and R3.
- C. Change the mode from mode tunnel to mode transport on R3
- D. Change the mode from mode transport to mode tunnel on R2.
- E. Remove the crypto isakmp key cisco address 10.1.1.1 on R2 and R3



Correct Answer: A, D

Section:

Explanation:

*When using DMVPN with IPsec, it is unnecessary to use tunnel mode. Because DMVPN uses GRE which means that a new IP header is already added by GRE. The GRE encapsulation happens on the tunnel interface before the encryption process takes place.

QUESTION 37

Which statement about route distinguishers in an MPLS network is true?

- A. Route distinguishers allow multiple instances of a routing table to coexist within the edge router.
- B. Route distinguishers are used for label bindings.
- C. Route distinguishers make a unique VPNv4 address across the MPLS network.
- D. Route distinguishers define which prefixes are imported and exported on the edge router.

Correct Answer: C

Section:

QUESTION 38

Which statement about MPLS LDP router ID is true?

- A. If not configured, the operational physical interface is chosen as the router ID even if a loopback is configured.
- B. The loopback with the highest IP address is selected as the router ID.
- C. The MPLS LDP router ID must match the IGP router ID.
- D. The force keyword changes the router ID to the specified address without causing any impact.

Correct Answer: B

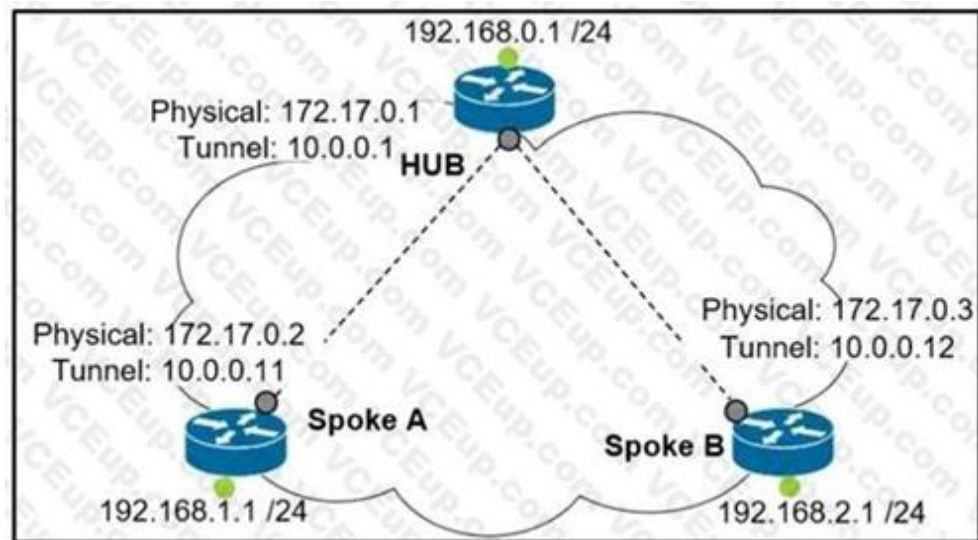
Section:

Explanation:

Reference: https://www.cisco.com/c/en/us/td/docs/ios-xml/ios/mp_ldp/configuration/12-4m/mpldp-12-4mbook.pdf

QUESTION 39

Refer to the exhibit.



vdumps

Which interface configuration must be configured on the spoke A router to enable a dynamic DMVPN tunnel with the spoke B router?

A. interface Tunnel0
description mGRE – DMVPN Tunnel
ip address 10.0.0.11 255.255.255.0
ip nhrp map multicast dynamic
ip nhrp network-id 1
tunnel source 10.0.0.1
tunnel destination FastEthernet 0/0
tunnel mode gre multipoint

B. interface Tunnel0
ip address 10.0.0.11 255.255.255.0
ip nhrp network-id 1
tunnel source FastEthernet 0/0
tunnel mode gre multipoint
ip nhrp nhs 10.0.0.1
ip nhrp map 10.0.0.1 172.17.0.1

C. interface Tunnel0
ip address 10.1.0.11 255.255.255.0
ip nhrp network-id 1
tunnel source 1.1.1.10
ip nhrp map 10.0.0.11 172.17.0.2
tunnel mode gre

D. interface Tunnel0
ip address 10.0.0.11 255.255.255.0
ip nhrp map multicast static
ip nhrp network-id 1
tunnel source 10.0.0.1
tunnel mode gre multipoint



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

Correct Answer: B

Section:

QUESTION 40

Which list defines the contents of an MPLS label?

- A. 20-bit label; 3-bit traffic class; 1-bit bottom stack; 8-bit TTL
- B. 32-bit label; 3-bit traffic class; 1-bit bottom stack; 8-bit TTL
- C. 20-bit label; 3-bit flow label; 1-bit bottom stack; 8-bit hop limit

D. 32-bit label; 3-bit flow label; 1-bit bottom stack; 8-bit hop limit

Correct Answer: A

Section:

Explanation:

The first 20 bits constitute a label, which can have 2^{20} values. Next comes 3 bit value called Traffic Class. It was formerly called as experimental (EXP) field. Now it has been renamed to Traffic Class (TC). This field is used for QoS related functions. Ingress router can classify the packet according to some criterion and assign a 3 bit value to this field. If an incoming packet is marked with some IP Precedence or DSCP value and the ingress router may use such a field to assign an FEC to the packet.

Next bit is Stack bit which is called bottom-of-stack bit. This field is used when more than one label is assigned to a packet, as in the case of MPLS VPNs or MPLS TE. Next byte is MPLS TTL field which serves the same purpose as that of IP TTL byte in the IP header

Reference: <https://tools.ietf.org/html/rfc5462>

QUESTION 41

Refer to the exhibit.

```
Router# show tag-switching tdp bindings
(...)
tib entry: 10.10.10.1/32, rev 31
  local binding: tag: 18
  remote binding: tsr: 10.10.10.1:0, tag: imp-null
  remote binding: tsr: 10.10.10.2:0, tag: 18
  remote binding: tsr: 10.10.10.6:0, tag: 21
tib entry: 10.10.10.2/32, rev 22
  local binding: tag: 17
  remote binding: tsr: 10.10.10.2:0, tag: imp-null
  remote binding: tsr: 10.10.10.1:0, tag: 19
  remote binding: tsr: 10.10.10.6:0, tag: 22
```



What does the imp-null tag represent in the MPLS VPN cloud?

- A. Pop the label
- B. Impose the label
- C. Include the EXP bit
- D. Exclude the EXP bit

Correct Answer: A

Section:

Explanation:

The ?imp-null? (implicit null) tag instructs the upstream router to pop the tag entry off the tag stack before forwarding the packet.

Note: pop means ?remove the top MPLS label?

QUESTION 42

Which transport layer protocol is used to form LDP sessions?

- A. UDP
- B. SCTP
- C. TCP
- D. RDP

Correct Answer: C

Section:

Explanation:

LDP multicasts hello messages to a well-known UDP port (646) in order to discover neighbors. Once the discovery is accomplished, a TCP connection (port 646) is established and the LDP session begins. LDP keepalives ensure the health of the session. Thanks to the LDP session, LDP messages create the label mappings required for a FEC. Withdraw messages are used when FECs need to be torn down.

QUESTION 43

Refer to the exhibits.

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

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

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

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



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

- A. The ip nhrp redirect command is missing on the spoke routers.
- B. The ip nhrp shortcut command is missing on the spoke routers.

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

Correct Answer: B, C

Section:

QUESTION 44

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

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

Correct Answer: A

Section:

QUESTION 45

Refer to the exhibit.



Which configuration denies Telnet traffic to router 2 from 198A:0:200C::1/64?



- A.


```

ipv6 access-list Deny_Telnet sequence 10 deny tcp host 198A:0:200C::1/64 host
201A:0:205C::1/64 eq telnet
!
int Gi0/0
  ipv6 traffic-filter Deny_Telnet in
!
      
```
- B.


```

ipv6 access-list Deny_Telnet sequence 10 deny tcp host 198A:0:200C::1/64 host
201A:0:205C::1/64 eq telnet
!
int Gi0/0
  ipv6 access-map Deny_Telnet in
!
      
```
- C.


```

ipv6 access-list Deny_Telnet sequence 10 deny tcp host 198A:0:200C::1/64 host
201A:0:205C::1/64
!
int Gi0/0
  ipv6 access-map Deny_Telnet in
!
      
```
- D.

```
ipv6 access-list Deny_Telnet sequence 10 deny tcp host 198A:0:200C::1/64 host
201A:0:205C::1/64
!
int Gi0/0
 ipv6 traffic-filter Deny_Telnet in
!
```

Correct Answer: A

Section:

QUESTION 46

Refer to the exhibit.

```
access-list 100 deny tcp any any eq 465
access-list 100 deny tcp any eq 465 any
access-list 100 permit tcp any any eq 80
access-list 100 permit tcp any eq 80 any
access-list 100 permit udp any any eq 443
access-list 100 permit udp any eq 443 any
```

During troubleshooting it was discovered that the device is not reachable using a secure web browser. What is needed to fix the problem?

- A. permit tcp port 443
- B. permit udp port 465
- C. permit tcp port 465
- D. permit tcp port 22

Correct Answer: A

Section:

QUESTION 47

Refer to the exhibit.

```
R1#show running-config | include aaa
aaa new-model
aaa authentication login default group tacacs+ local
aaa authentication login Console local
R1#show running-config | section line
line con 0
 logging synchronous
R1#
```

An engineer is trying to configure local authentication on the console line, but the device is trying to authenticate using TACACS+. Which action produces the desired configuration?

- A. Add the aaa authentication login default none command to the global configuration.
- B. Replace the capital "C" with a lowercase "c" in the aaa authentication login Console local command.
- C. Add the aaa authentication login default group tacacs+ local-case command to the global configuration.
- D. Add the login authentication Console command to the line configuration

Correct Answer: D

Section:



Explanation:

Reference:

<https://community.cisco.com/t5/switching/how-to-define-login-local-for-console-0/td-p/2949493>**QUESTION 48**

Refer to the exhibit.

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

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

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

Correct Answer: D**Section:****QUESTION 49**

Which statement about IPv6 ND inspection is true?

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

Correct Answer: B**Section:****Explanation:**

IPv6 ND inspection learns and secures bindings for stateless autoconfiguration addresses in Layer 2 neighbor tables. IPv6 ND inspection analyzes neighbor discovery messages in order to build a trusted binding table database, and IPv6 neighbor discovery messages that do not have valid bindings are dropped. A neighbor discovery message is considered trustworthy if its IPv6-to-MAC mapping is verifiable.

This feature mitigates some of the inherent vulnerabilities for the neighbor discovery mechanism, such as attacks on duplicate address detection (DAD), address resolution, device discovery, and the neighbor cache.

Reference: https://www.cisco.com/c/en/us/td/docs/ios-xml/ios/ipv6_fhsec/configuration/15-s/ipv6f-15-s-book/ipv6-snooping.pdf

QUESTION 50

While troubleshooting connectivity issues to a router, these details are noticed:

Standard pings to all router interfaces, including loopbacks, are successful.

Data traffic is unaffected.

SNMP connectivity is intermittent.

SSH is either slow or disconnects frequently.

Which command must be configured first to troubleshoot this issue?

- A. show policy-map control-plane
- B. show policy-map
- C. show interface | inc drop
- D. show ip route

Correct Answer: A

Section:

QUESTION 51

Refer to the exhibit.

```
TAC+: TCP/IP open to 171.68.118.101/49 failed --
Destination unreachable; gateway or host down
AAA/AUTHEN (2546660185): status = ERROR
AAA/AUTHEN/START (2546660185): Method=LOCAL
AAA/AUTHEN (2546660185): status = FAIL
As1 CHAP: Unable to validate Response. Username chapuser: Authentication failure
```

Why is user authentication being rejected?

- A. The TACACS+ server expects "user", but the NT client sends "domain/user".
- B. The TACACS+ server refuses the user because the user is set up for CHAP.
- C. The TACACS+ server is down, and the user is in the local database.
- D. The TACACS+ server is down, and the user is not in the local database.

Correct Answer: D

Section:

Explanation:

Reference: <https://www.cisco.com/c/en/us/support/docs/security-vpn/terminal-access-controlleraccesscontrol-system-tacacs-/13864-tacacs-pppdebug.html>

QUESTION 52

Refer to the exhibit.




```
Cat3850-Stack-2# show policy-map
Policy Map LIMIT_BGP
Class BGP
drop

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

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

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

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

- A. policy-map SHAPE_BGP
- B. policy-map LIMIT_BGP
- C. policy-map POLICE_BGP
- D. policy-map COPP

Correct Answer: D

Section:

QUESTION 53

Which statement about IPv6 RA Guard is true?

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

Correct Answer: A

Section:

Explanation:

https://www.cisco.com/c/en/us/td/docs/ios-xml/ios/ipv6_fhsec/configuration/xs-3s/ip6f-xe-3sbook/ip6-ra-guard.html#GUID-589AF00C-7499-439F-AD23-51005D61CAB7The IPv6 RA Guard feature does not offer protection in environments where IPv6 traffic is tunneled.

Reference: https://www.cisco.com/c/en/us/td/docs/ios-xml/ios/ipv6_fhsec/configuration/xe-16/ip6f-xe-16-book/ip6-ra-guard.pdf

QUESTION 54

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

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

Correct Answer: A, B

Section:

QUESTION 55

Refer to the exhibit.

```
R1#show running-config | section dhcp
ip dhcp excluded-address 192.168.1.1 192.168.1.49
ip dhcp pool DHCP
  network 192.168.1.0 255.255.255.0
  default-router 192.168.1.1
  dns-server 8.8.8.8
  lease 0 12
```

Users report that IP addresses cannot be acquired from the DHCP server. The DHCP server is configured as shown. About 300 total nonconcurrent users are using this DHCP server, but none of them are active for more than two hours per day. Which action fixes the issue within the current resources?

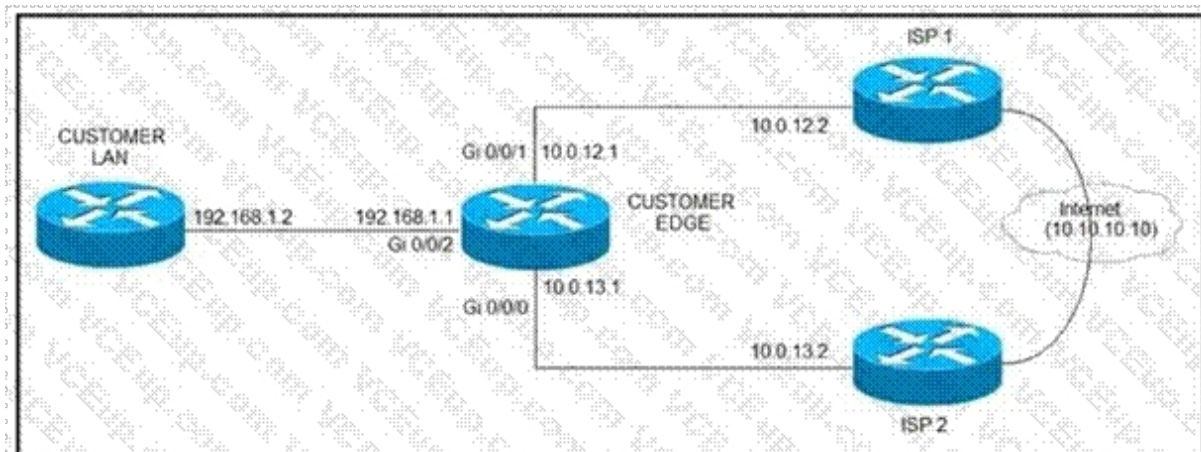
- A. Modify the subnet mask to the network 192.168.1.0 255.255.254.0 command in the DHCP pool
- B. Configure the DHCP lease time to a smaller value
- C. Configure the DHCP lease time to a bigger value
- D. Add the network 192.168.2.0 255.255.255.0 command to the DHCP pool

Correct Answer: B

Section:

QUESTION 56

Refer to the exhibit.



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

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

Correct Answer: D

Section:

Explanation:

Reference: https://www.cisco.com/c/en/us/td/docs/ios-xml/ios/ipsla/configuration/15-mt/sla-15-mt-book/sla_icmp_echo.html

QUESTION 57

Refer to the exhibit.

```

service timestamps debug datetime msec
service timestamps log datetime
clock timezone MST -7 0
clock summer-time MST recurring
ntp authentication-key 1 md5 00101A0B0152181206224747071E 7
ntp server 10.10.10.10

R1#show clock
*06:13:44.045 MST Sun Dec 30 2018

R1#conf t
Enter configuration commands, one per line. End with CNTL/Z.
R1(config) #logging host 10.10.10.20
R1(config) #end
R1#
*Dec 30 13:15:28: %SYS-5-CONFIG_I: Configured from console by console
R1#
*Dec 30 13:15:28: %SYS-6-LOGGINGHOST_STARTSTOP: Logging to host 10.10.10.20 port 514
started - CLI initiated

```

An administrator noticed that after a change was made on R1, the timestamps on the system logs did not match the clock. What is the reason for this error?

- A. An authentication error with the NTP server results in an incorrect timestamp.
- B. The keyword localtime is not defined on the timestamp service command.

- C. The NTP server is in a different time zone.
- D. The system clock is set incorrectly to summer-time hours.

Correct Answer: B

Section:

QUESTION 58

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

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

Correct Answer: C

Section:

Explanation:

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

QUESTION 59

When provisioning a device in Cisco DNA Center, the engineer sees the error message "Cannot select the device. Not compatible with template". What is the reason for the error?

- A. The template has an incorrect configuration.
- B. The software version of the template is different from the software version of the device.
- C. The changes to the template were not committed.
- D. The tag that was used to filter the templates does not match the device tag.



Correct Answer: D

Section:

Explanation:

If you use tags to filter the templates, you must apply the same tags to the device to which you want to apply the templates. Otherwise, you get the following error during provisioning: "Cannot select the device. Not compatible with template."

Reference: https://www.cisco.com/c/en/us/td/docs/cloud-systems-management/networkautomation-and-management/dna-center/1-2-10/user_guide/b_cisco_dna_center_ug_1_2_10/b_dnac_ug_1_2_10_chapter_0111.html

QUESTION 60

While working with software images, an engineer observes that Cisco DNA Center cannot upload its software image directly from the device. Why is the image not uploading?

- A. The device must be resynced to Cisco DNA Center.
- B. The software image for the device is in install mode.
- C. The device has lost connectivity to Cisco DNA Center.
- D. The software image for the device is in bundle mode

Correct Answer: B

Section:

Explanation:

Upload Software Images for Devices in Install Mode

The Image Repository page might show a software image as being in Install Mode. When a device is in Install Mode, Cisco DNA Center is unable to upload its software image directly from the device. When a device is in install mode, you must first manually upload the software image to the Cisco DNA Center repository before marking the image as golden, as shown in the following steps.
Reference: https://www.cisco.com/c/en/us/td/docs/cloud-systems-management/networkautomation-andmanagement/dna-center/1-2-10/user_guide/b_cisco_dna_center_ug_1_2_10/b_dnac_ug_1_2_10_chapter_0100.html

QUESTION 61

An engineer configured the wrong default gateway for the Cisco DNA Center enterprise interface during the install. Which command must the engineer run to correct the configuration?

- A. `sudo maglev-config update`
- B. `sudo maglev install config update`
- C. `sudo maglev reinstall`
- D. `sudo update config install`

Correct Answer: A

Section:

QUESTION 62

Refer to the exhibit.

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

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

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

Correct Answer: C

Section:

Explanation:

The `-logging console||` is a default and hidden command.

QUESTION 63

Refer to the exhibit.

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

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

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

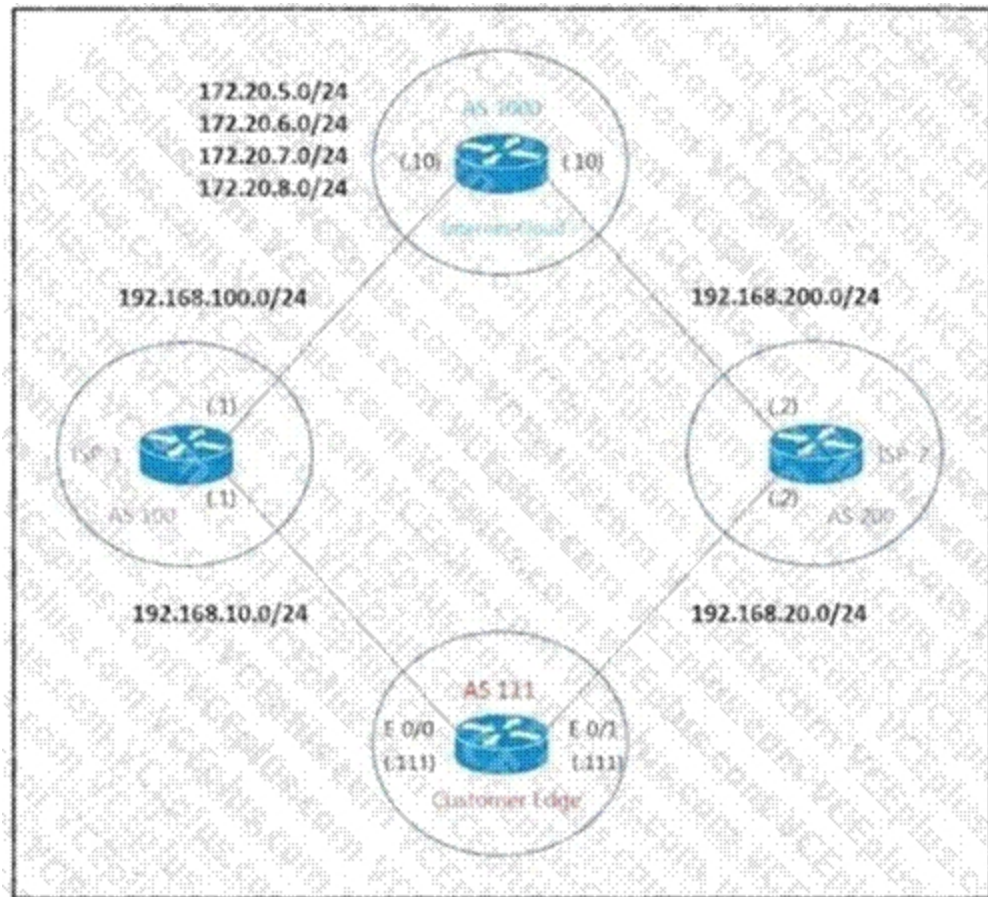
Correct Answer: B, E

Section:

QUESTION 64

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

Correct Answer: A

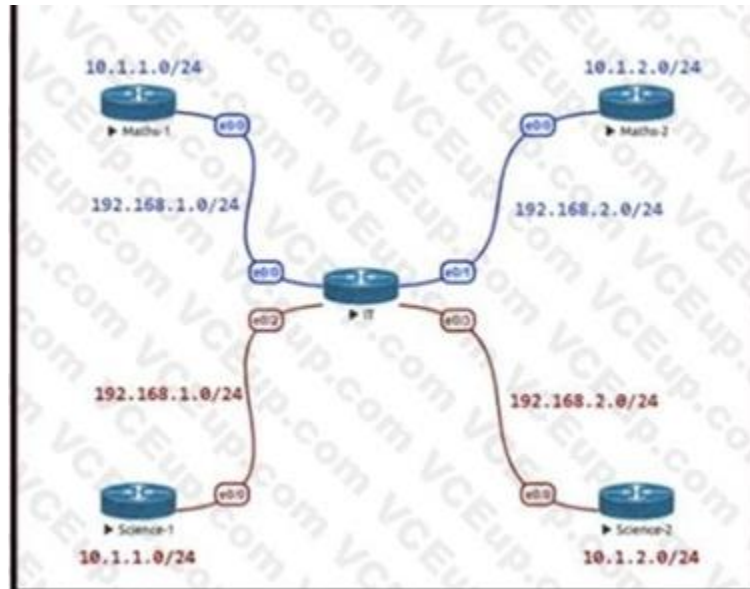
Section:

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.

QUESTION 65

Refer to the exhibit.



The Math and Science departments connect through the corporate IT router but users in the Math department must not be able to reach the Science department and vice versa Which configuration accomplishes this task?

- A. vrf definition Science


```
!
interface E 0/2
ip address 192.168.1.1 255.255.255.0
no shut
!
interface E 0/3
ip address 192.168.2.1 255.255.255.0
no shut
```
- B. vrf definition Science


```
address-family ipv4
!
nterface E 0/2
ip address 192.168.1.1 255.255.255.0
vrf forwarding Science
no shut
!i
nterface E 0/3
ip address 192.168.2.1 255.255.255.0
vrf forwarding Science
no shut
```
- C. vrf definition Science


```
address-family ipv4
!i
nterface E 0/2
ip address 192.168.1.1 255.255.255.0
no shut
!i
```




```
interface E 0/3
ip address 192.168.2.1 255.255.255.0
no shut
```

```
D. vrf definition Science
address-family ipv4
!i
interface E 0/2
vrf forwarding Science
ip address 192.168.1.1 255.255.255.0
no shut
!i
interface E 0/3
vrf forwarding Science
ip address 192.168.2.1
```

Correct Answer: D

Section:

QUESTION 66

An engineer configured Reverse Path Forwarding on an interface and noticed that the routes are dropped when a route lookup fails on that interface for a prefix that is available in the routing table Which interface configuration resolves the issue?

- A. ip verify unicast source reachable-via rx
- B. ip verify unicast source reachable-via any
- C. ip verify unicast source reachable-via allow-default
- D. ip verify unicast source reachable-via 12-src



Correct Answer: B

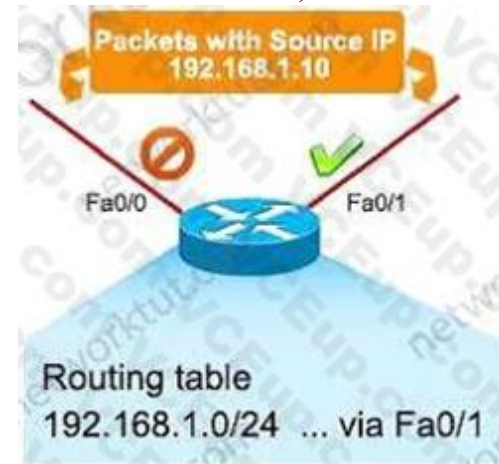
Section:

Explanation:

According to this question, uRPF is running in strict mode because packets are dropped even when that route exists in the routing table. Maybe packets are dropped because the receiving interface is different from the interface the local router uses to send packets to that destination.

The ip verify unicast source reachable-via rx command enables Unicast RPF in strict mode.

To enable loose mode, administrators can use the any option (ip verify unicast source reachable-via any). In loose mode, it doesn't matter if we use this interface to reach the source or not.



The allow-default option allows the use of the default route in the source verification process.

QUESTION 67

Refer to the exhibit.

```

NY
router ospf 1
 network 192.168.12.0 0.0.0.255 area 0
 network 172.16.2.0 0.0.0.255 area 0
!
interface E 0/0
 ip ospf authentication message-digest
 ip ospf message-digest-key 1 md5 Cisco123

```

The neighbor relationship is not coming up Which two configurations bring the adjacency up?
(Choose two)

- A. NY router ospf 1 area 0 authentication message-digest
- B. LA interface E 0/0 ip ospf message-digest-key 1 md5 Cisco123
- C. NY interface E 0/0 no ip ospf message-digest-key 1 md5 Cisco123 ip ospf authentication-key Cisco123
- D. LA interface E 0/0 ip ospf authentication-key Cisco123
- E. LA router ospf 1 area 0 authentication message-digest

Correct Answer: B, E

Section:

Explanation:

The configuration on NY router is good for OSPF authentication. So we must enable OSPF authentication on LA router with the following commands: router ospf 1 area 0 authentication message-digest interface E0/0 ip ospf message-digest-key 1 md5 Cisco123

QUESTION 68

Refer to the exhibit.

```

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

```

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

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

SanFrancisco Router
router ospf 1
auto-cost reference-bandwidth 1000

All Routers
router ospf 1
auto-cost reference-bandwidth 100

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

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

Correct Answer: D

Section:

QUESTION 69

Refer to the exhibit.



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

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

- A. Configure TACACS+ synchronization with the Active Directory admin group

- B. Configure the username from a local database
- C. Configure full access for the username from TACACS+ server
- D. Configure an authorized IP address for this user to access this router

Correct Answer: C

Section:

QUESTION 70

Refer to the exhibit.

```

ipv6 access-list INTERNET
permit ipv6 2001:DB8:AD59:BA21::/64 2001:DB8:COAB:BA14::/64
permit tcp 2001:DB8:AD59:BA21::/64 2001:DB8:COAB: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

Correct Answer: C

Section:



QUESTION 71

Refer to the exhibit.

```

router ospf 1
 redistribute eigrp 1 subnets route-map EIGRP->OSPF
|
router eigrp 1
 network 10.0.106.0 0.0.0.255
|
route-map EIGRP->OSPF permit 10
 match ip address WAN_PREFIXES
route-map EIGRP->OSPF permit 20
 match ip address LOCAL_PREFIXES
route-map EIGRP->OSPF permit 30
 match ip address VPN_PREFIXES
|
ip prefix-list LOCAL_PREFIXES seq 5 permit 172.16.0.0/12 le 24
ip prefix-list VPN_PREFIXES seq 5 permit 192.168.0.0/16 le 24
ip prefix-list WAN_PREFIXES seq 5 permit 10.0.0.0/8 le 24
|

```

The network administrator configured redistribution on an ASBR to reach to all WAN networks but failed Which action resolves the issue?

- A. The route map must have the keyword prefix-list to evaluate the prefix list entries
- B. The OSPF process must have a metric when redistributing prefixes from EIGRP.
- C. The route map EIGRP->OSPF must have the 10.0.106.0/24 entry to exist in one of the three prefix lists to pass
- D. EIGRP must redistribute the 10.0.106.0/24 route instead of using the network statement

Correct Answer: A

Section:

Explanation:

In order to use a prefix-list in a route-map, we must use the keyword "prefix-list" in the "match" statement. . For example: match ip address prefix-list WAN_PREFIXES Without this keyword, the router will try to find an access-list with the same name instead.

QUESTION 72

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

Correct Answer: D

Section:

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

QUESTION 73

Refer to the exhibit.

```
Configuration Output:
aaa new-model
!
aaa authentication login default local
aaa authentication login VTY_AUTH local
aaa authorization exec default none
aaa authorization exec VTY_AUTH local
aaa accounting exec default start-stop group radius
!

password 7 K0AyUubDrtOgO4s
authorization exec VTY_AUTH
login authentication VTY_AUTH
!

Debug Output:
AAA/AUTHEN/LOGIN (000004B6): Pick method list 'default'
AAA/AUTHOR (0x4B6): Pick method list 'VTY_AUTH'
AAA/AUTHOR/EXEC(000004B6): Authorization FAILED
```



Which action resolves the failed authentication attempt to the router?

- A. Configure aaa authorization login command on line vty 0 4
- B. Configure aaa authorization login command on line console 0
- C. Configure aaa authorization console global command
- D. Configure aaa authorization console command on line vty 0 4

Correct Answer: C

Section:

Explanation:

In the debug output, we see that the Authorization (not Authentication) failed so we need to correct the authorization. In order to enable authorization, we must use the global command "aaa authorization console" first.

Reference:

<https://www.cisco.com/c/en/us/td/docs/ios-xml/ios/security/a1/sec-a1-cr-book/sec-cr-a1.html>

QUESTION 74

A customer reports to the support desk that they cannot print from their PC to the local printer id:401987778. Which tool must be used to diagnose the issue using Cisco DNA Center Assurance?

- A. application trace
- B. path trace
- C. ACL trace
- D. device trace

Correct Answer: B

Section:

QUESTION 75

When determining if a system is capable of support, what is the minimum time spacing required for a BFD control packet to receive once a control packet is arrived?

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

Correct Answer: C

Section:

Explanation:

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

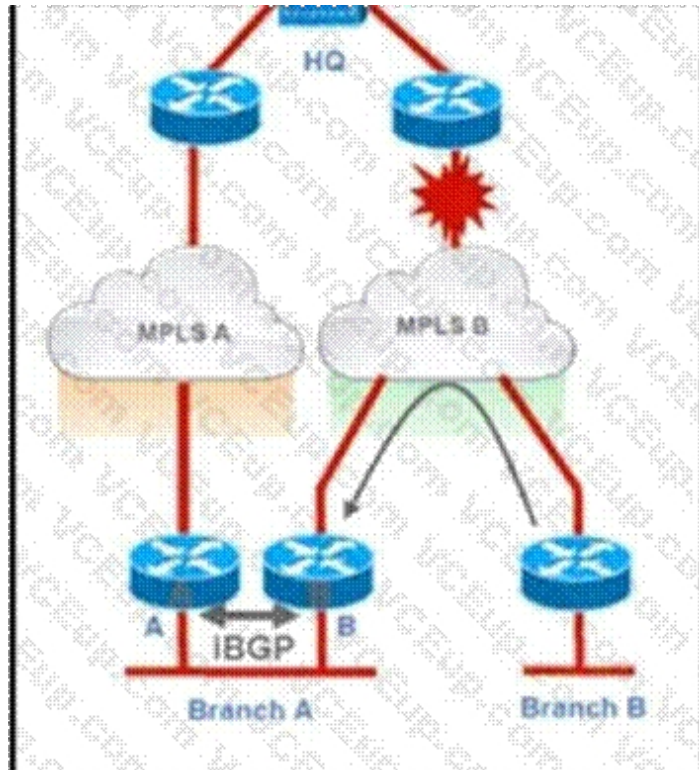
Required Min Echo RX Interval: This is the minimum interval, in microseconds, between received BFD Echo packets that this system is capable of supporting, less any jitter applied by the sender. If this value is zero, the transmitting system does not support the receipt of BFD Echo packets.

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

QUESTION 76

Refer to the exhibit.





Troubleshoot and ensure that branch B only ever uses the MPLS B network to reach HQ. Which action achieves this requirement?

- A. Introduce an AS path filter on branch A routers so that only local prefixes are advertised into BGP
- B. increase the local preference for all HQ prefixes received at branch B from the MPLS B network to be higher than the local preferences used on the MPLS A network
- C. Introduce AS path prepending on the branch A MPLS B network connection so that any HQ advertisements from branch A toward the MPLS B network are prepended three times
- D. Modify the weight of all HQ prefixes received at branch B from the MPLS B network to be higher than the weights used on the MPLS A network

Correct Answer: A

Section:

Explanation:

If we modify the weight, increase local preference or use AS path prepending then we can only make MPLS B prefer over MPLS A. But when MPLS B is down then MPLS A will be used which does not meet the requirement of this question.

Only with AS path filtering we can deny prefixes from certain AS and make sure branch B never uses MPLS A to reach HQ.

QUESTION 77

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.



Correct Answer: C

Section:

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.

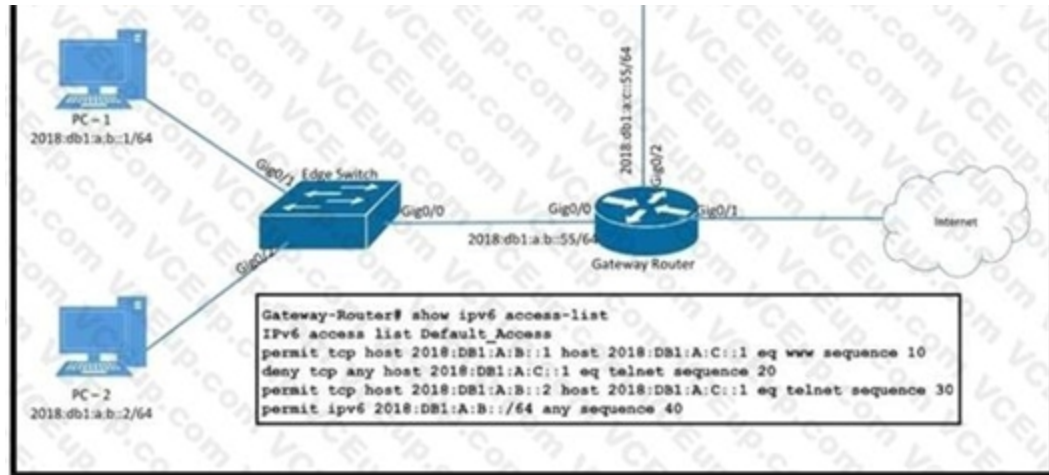
-> In order to redistribute all OSPF routes into BGP, we must use both internal and external keywords. The full command would be (suppose we are using OSPF 1): redistribute ospf 1 match internal external Note: The configuration shows match internal external 1 external 2. This is normal because OSPF automatically 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-redis.html>

QUESTION 78

Refer to the exhibit.



PC-2 failed to establish a Telnet connection to the terminal server Which configuration resolves the issue?

- Gateway-Router(config)#ipv6 access-list Default_Access
Gateway-Router(config-ipv6-acl)#sequence 15 permit tcp host 2018:DB1:A:B::2 host 2018:DB1:A:C::1 eq telnet
- Gateway-Router(config)#ipv6 access-list Default_Access
Gateway-Router(config-ipv6-acl)#permit tcp host 2018:DB1:A:B::2 host 2018:DB1:A:C::1 eq telnet
- Gateway-Router(config)#ipv6 access-list Default_Access
Gateway-Router(config-ipv6-acl)#no sequence 20
Gateway-Router(config-ipv6-acl)#sequence 5 permit tcp host 2018:DB1:A:B::2 host 2018:DB1:A:C::1 eq telnet
- Gateway-Router(config)#ipv6 access-list Default_Access
Gateway-Router(config-ipv6-acl)#sequence 25 permit tcp host 2018:DB1:A:B::2 host 2018:DB1:A:C::1 eq telnet

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

Correct Answer: A

Section:

Explanation:

In fact in this question both answer A and answer C are correct but we believe answer A is the better choice as it only allows PC-2 to telnet to terminal server. All other hosts are refused to telnet to terminal server via sequence 20.

QUESTION 79

What statement about route distinguishes in an MPLS network is true?

- A. Route distinguishes make a unique VPNv4 address across the MPLS network.
- B. Route distinguishers allow multiple instances of a routing table to coexist within the edge router.
- C. Route distinguishers are used for label bindings
- D. Route distinguishers define which prefixes are imported and exported on the edge router

Correct Answer: A

Section:

QUESTION 80

Refer to the exhibit.



```

Router#show ip eigrp interfaces
EIGRP-IPv4 Interfaces for AS(1)
Interface          Xmit Queue  PeerQ      Mean Pacing Time  Multicast  F
Peers  Un/Reliable  Un/Reliable  SRTT  Un/Reliable  Flow T
Lo0                0          0/0        0/0    0    0/0        0    0
Fa0/0              1          0/0        0/0    7    0/2        50    0

Router#show running-config | section eigrp
router eigrp 1
 network 172.16.0.0 0.0.0.255
 network 192.168.2.2 0.0.0.0
 network 192.168.12.2 0.0.0.0

Router#show running-config interface Fa0/3
Building configuration...

Current configuration : 93 bytes
!
interface FastEthernet0/3
 ip vrf forwarding CLIENT1
 ip address 172.16.0.1 255.255.255.0

```

While troubleshooting an EIGRP neighbor adjacency problem, the network engineer notices that the interface connected to the neighboring router is not participating in the EIGRP process. Which action resolves the issues?

- A. Configure the network command to network 172.16.0.1 0.0.0.0
- B. Configure the network command under EIGRP address family vrf CLIENT1
- C. Configure EIGRP metrics on interface FastEthernet0/3
- D. Configure the network command under EIGRP address family ipv4

Correct Answer: B

Section:

QUESTION 81

Refer to the exhibit.

```

admin@linux:~$ scp script.py admin@198.51.100.64:script.py
Password:
Administratively disabled.
admin@linux:~$ Connection to 198.51.100.64 closed by remote
host.

```

A network administrator has developed a Python script on the local Linux machine and is trying to transfer it to the router. However, the transfer fails. Which action resolves this issue?

- A. The SSH service must be enabled with the crypto key generate rsa command.
- B. The SCP service must be enabled with the ip scp server enable command.
- C. The Python interpreter must first be enabled with the guestshell enable command.
- D. The SSH access must be allowed on the VTY lines using the transport input ssh command.

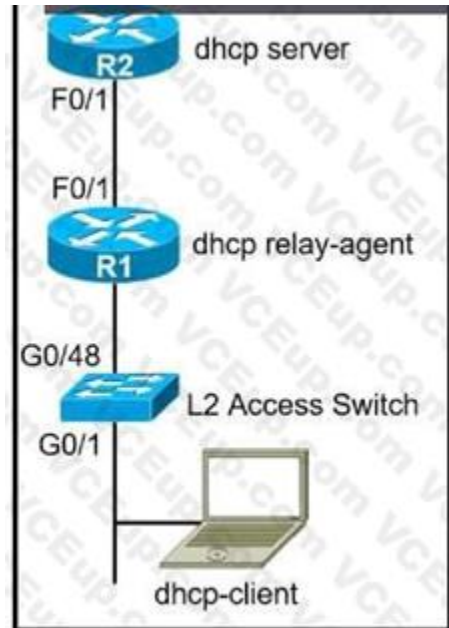
Correct Answer: B

Section:

QUESTION 82



Refer to the exhibit.



The network administrator can see the DHCP discovery packet in R1. but R2 is not replying to the DHCP request. The R1 related interface is configured with the DHCP helper address. If the PC is directly connected to the FaO/1 interface on R2, the DHCP server assigns as IP address from the DHCP pool to the PC. Which two commands resolve this issue? (Choose two.)

- A. service dhcp-relay command on R1
- B. ip dhcp option 82 command on R2
- C. service dhcp command on R1
- D. ip dhcp relay information enable command on R1
- E. ip dhcp relay information trust-all command on R2

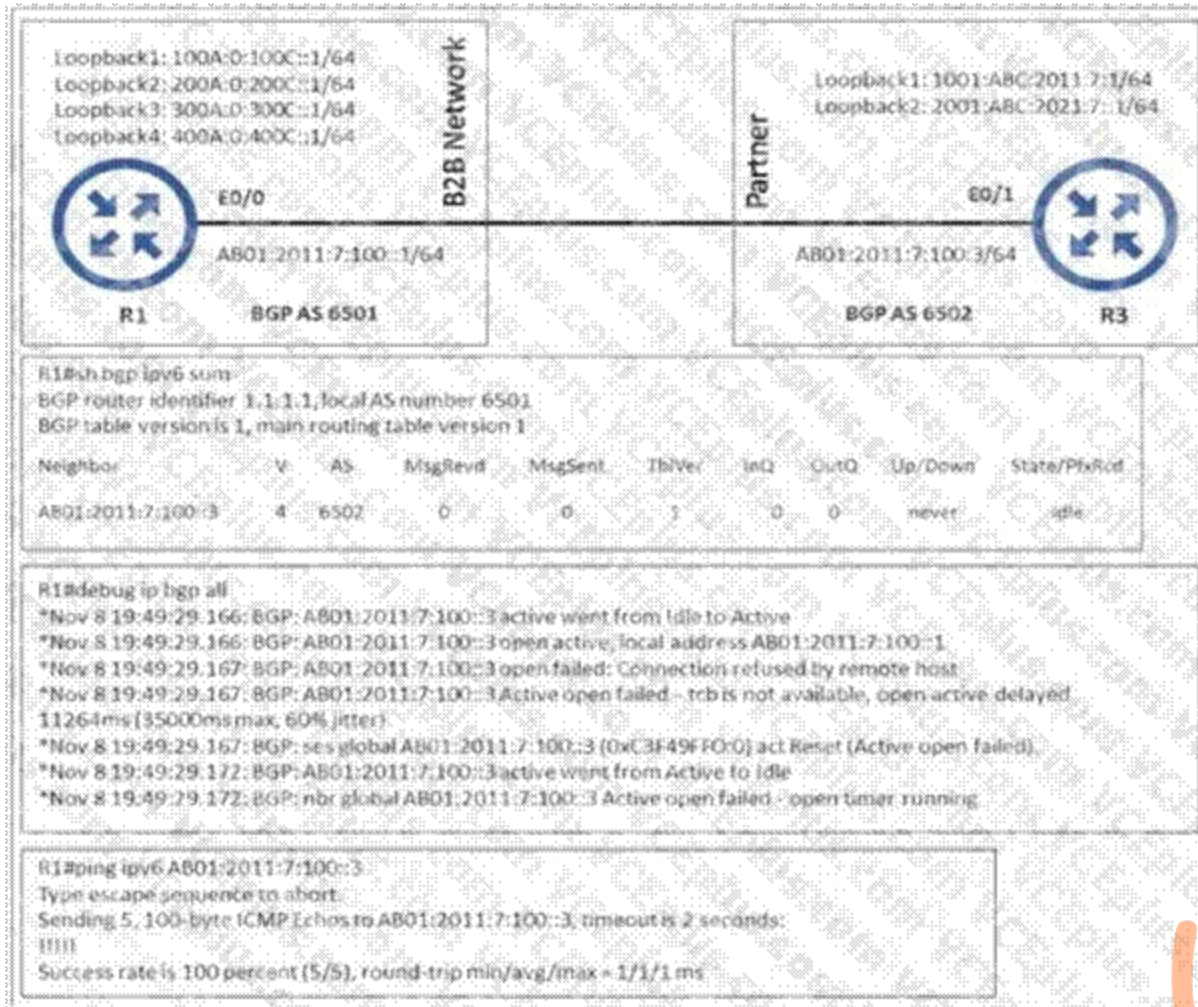
Correct Answer: B, C

Section:

QUESTION 83

Refer to the exhibit.





An engineer configured BGP between routers R1 and R3. The BGP peers cannot establish neighbor adjacency to be able to exchange routes. Which configuration resolves this issue?

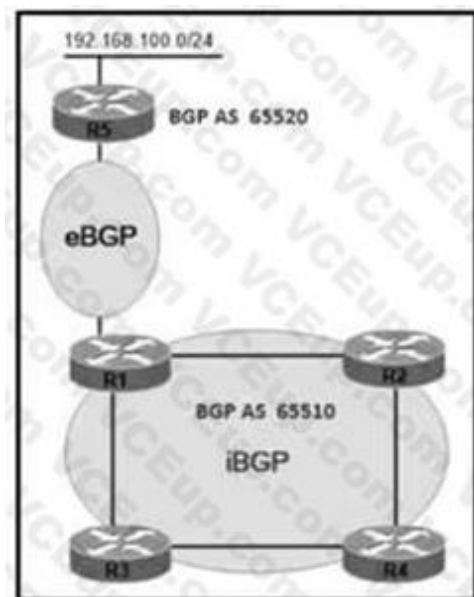
- A. R3 router bgp 6502 address-family ipv6 neighbor AB01:2011:7:100::1 activate
- B. R1 router bgp 6501 address-family ipv6 neighbor AB01:2011:7:100::3 activate
- C. R3 router bgp 6502 neighbor AB01:2011:7:100::1 ebgp-multihop 255
- D. R1 router bgp 6501 neighbor AB01:2011:7:100::3 ebgp-multihop 255

Correct Answer: A

Section:

QUESTION 84

Refer to the exhibit.



AS65510 iBGP is configured for directly connected neighbors. R4 cannot ping or traceroute network 192.168.100.0/24 Which action resolves this issue?

- A. Configure R4 as a route reflector server and configure R1 as a route reflector client
- B. Configure R1 as a route reflector server and configure R2 and R3 as route reflector clients
- C. Configure R4 as a route reflector server and configure R2 and R3 as route reflector clients.
- D. Configure R1 as a route reflector server and configure R4 as a route reflector client

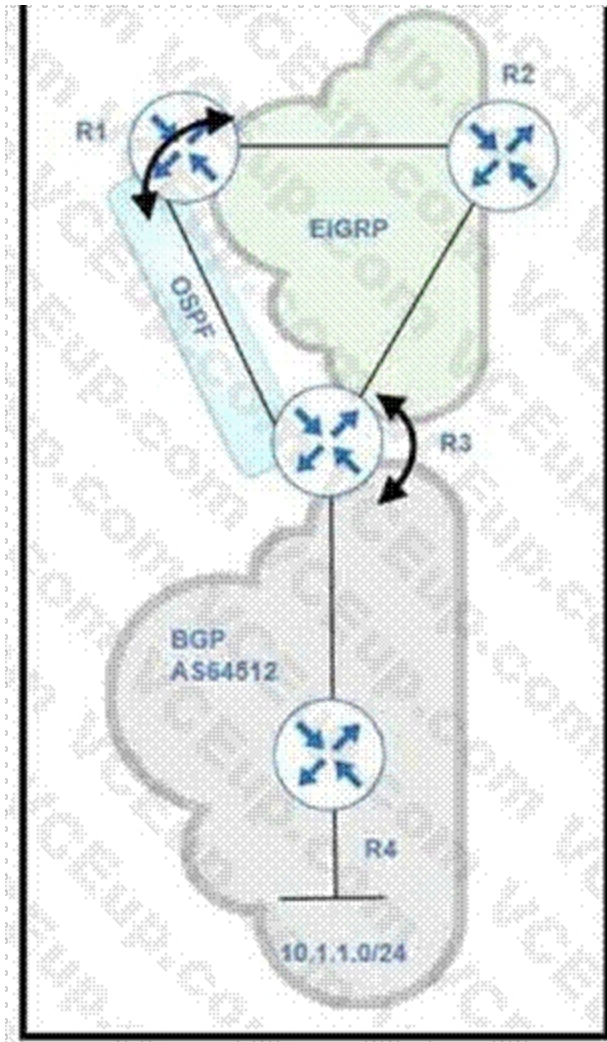
Correct Answer: A

Section:

QUESTION 85

Refer to the exhibit.





BGP and EIGRP are mutually redistributed on R3, and EIGRP and OSPF are mutually redistributed on R1. Users report packet loss and interruption of service to applications hosted on the 10.1.1.0/24 prefix. An engineer tested the link from R3 to R4 with no packet loss present but has noticed frequent routing changes on R3 when running the debug ip route command. Which action stabilizes the service?

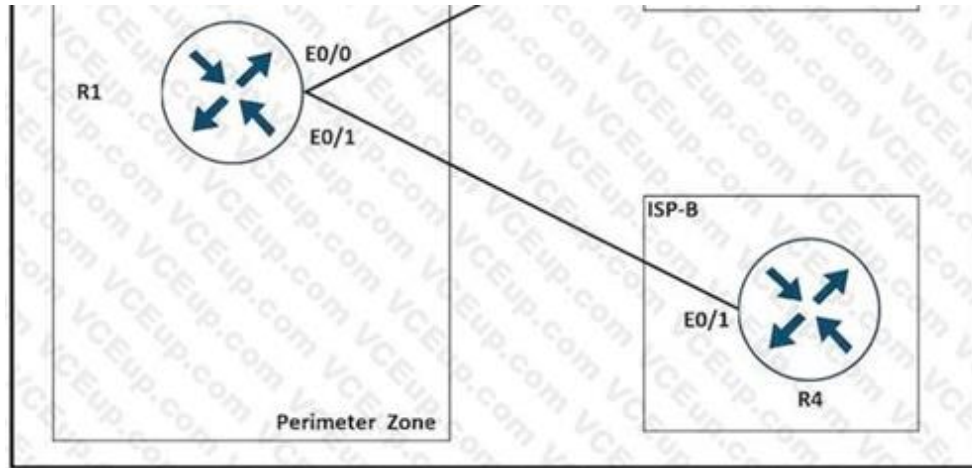
- A. Tag the 10.1.1.0/24 prefix and deny the prefix from being redistributed into OSPF on R1.
- B. Repeat the test from R4 using ICMP ping on the local 10.1.1.0/24 prefix, and fix any Layer 2 errors on the host or switch side of the subnet. ^ C. Place an OSPF distribute-list outbound on R3 to block the 10.1.1.0/24 prefix from being advertised back to R3.
- C. Reduce frequent OSPF SPF calculations on R3 that cause a high CPU and packet loss on traffic traversing R3.

Correct Answer: A

Section:

QUESTION 86

Refer to the exhibit.



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

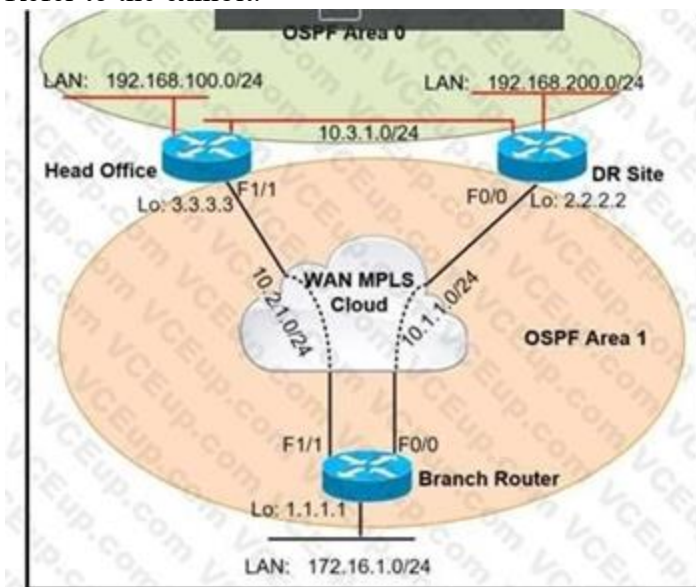
- A. no terminal monitor
- B. (config)#terminal no monitor
- C. #terminal no monitor
- D. (config)#no terminal monitor

Correct Answer: C

Section:

QUESTION 87

Refer to the exhibit.



A network administrator reviews the branch router console log to troubleshoot the OSPF adjacency issue with the DR router. Which action resolves this issue?

- A. Advertise the branch WAN interface matching subnet for the DR site.
- B. Configure matching hello and dead intervals between sites.
- C. Configure the WAN interface for DR site in the related OSPF area.
- D. Stabilize the DR site flapping link to establish OSPF adjacency.

Correct Answer: B

Section:

QUESTION 88

Refer to the exhibit.



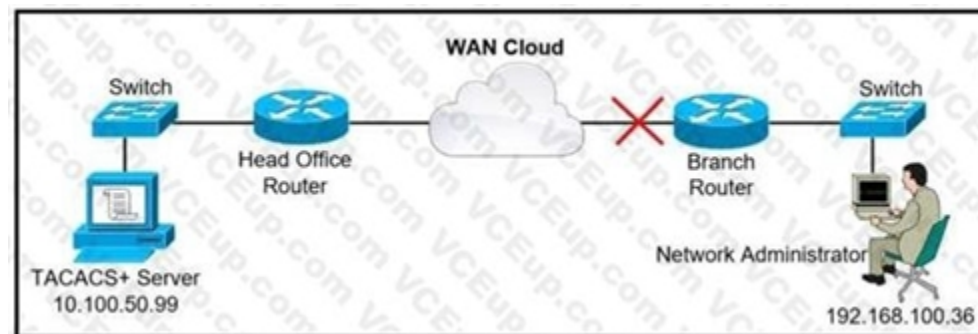
Which action resolves the adjacency issue?

- A. Match the hello interval timers.
- B. Configure the same EIGRP process IDs.
- C. Match the authentication keys.
- D. Configure the same autonomous system numbers.

Correct Answer: D

Section:

QUESTION 89



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



Correct Answer: A

Section:

QUESTION 90

Users report issues with reachability between areas as soon as an engineer configured summary routes between areas in a multiple area OSPF autonomous system. Which action resolves the issue?

- A. Configure the summary-address command on the ASBR.
- B. Configure the summary-address command on the ABR.
- C. Configure the area range command on the ABR.
- D. Configure the area range command on the ASBR.

Correct Answer: D

Section:

QUESTION 91

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 BGP, conform-action transmit, and exceed action transmit.
- D. Police the pir for BGP, conform-action set-prec-transmit, and exceed action set-clp-transmit.

Correct Answer: A

Section:



QUESTION 92

Refer to the exhibit.

```
AS111
Router bgp 111
Neighbor 195.1.1.1 remote-as 100
Neighbor 195.1.1.1 allowas-in
Neighbor 195.1.2.2 remote-as 200
Neighbor 195.1.2.2 allowas-in
```

AS111 is receiving its own routes from AS200 causing a loop in the network. Which configuration provides loop prevention?

- A.

```
router bgp 111
neighbor 195.1.1.1 as-override
neighbor 195.1.2.2 as-override
```
- B.

```
router bgp 111
neighbor 195.1.1.1 as-override
no neighbor 195.1.2.2 allowas-in
```
- C.

```
router bgp 111
no neighbor 195.1.1.1 allowas-in
no neighbor 195.1.2.2 allowas-in
```

D.

```
router bgp 111
neighbor 195.1.2.2 as-override
no neighbor 195.1.1.1 allowas-in
```

Correct Answer: C

Section:

QUESTION 93

Refer to the exhibit.

```
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 broadcast
```

B.

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

C.



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

D.

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

Correct Answer: A

Section:

QUESTION 94

Refer to the exhibit.

```
R 172.29.0.0/16, 1 successors, FD is 307200, serno 2
  via 192.168.254.2 (307200/281600), FastEthernet0/1
  via 192.168.253.2 (410200/352300), FastEthernet0/0
```

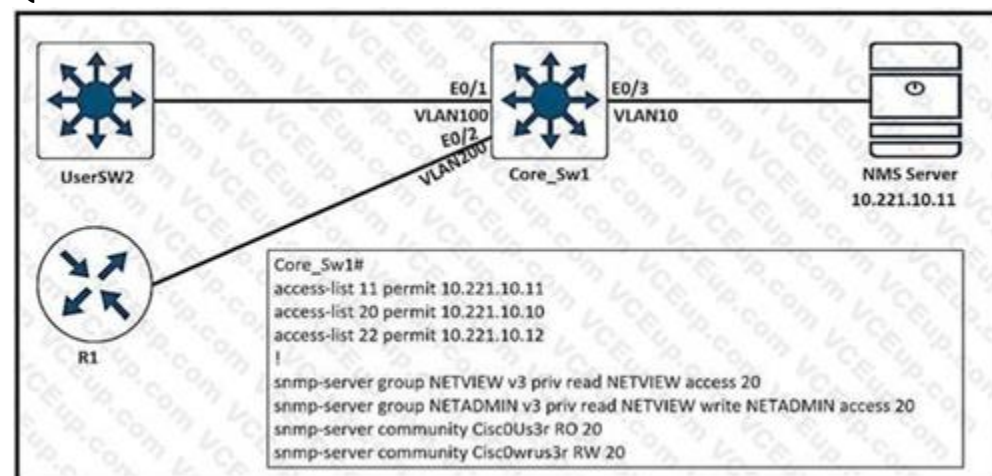
When the FastEthernet0/1 goes down, the route to 172.29.0 0/16 via 192.168.253 2 is not installed in the RIB. Which action resolves the issue?

- A. Configure reported distance greater than the feasible distance
- B. Configure feasible distance greater than the successor's feasible distance.
- C. Configure reported distance greater than the successor's feasible distance.
- D. Configure feasible distance greater than the reported distance

Correct Answer: D

Section:

QUESTION 95



An engineer configured SNMP communities on the Core Sw1, but the SNMP server cannot obtain information from Core_Sw1. Which configuration resolves this issue?

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

Correct Answer: D

Section:

QUESTION 96

IPv6 is enabled in the infrastructure to support customers with an IPv6 network over WAN and to connect the head office to branch offices in the local network. One of the customers is already running IPv6 and wants to enable IPv6 over the DMVPN network infrastructure between the headend and branch sites. Which configuration command must be applied to establish an mGRE IPv6 tunnel neighborhood?

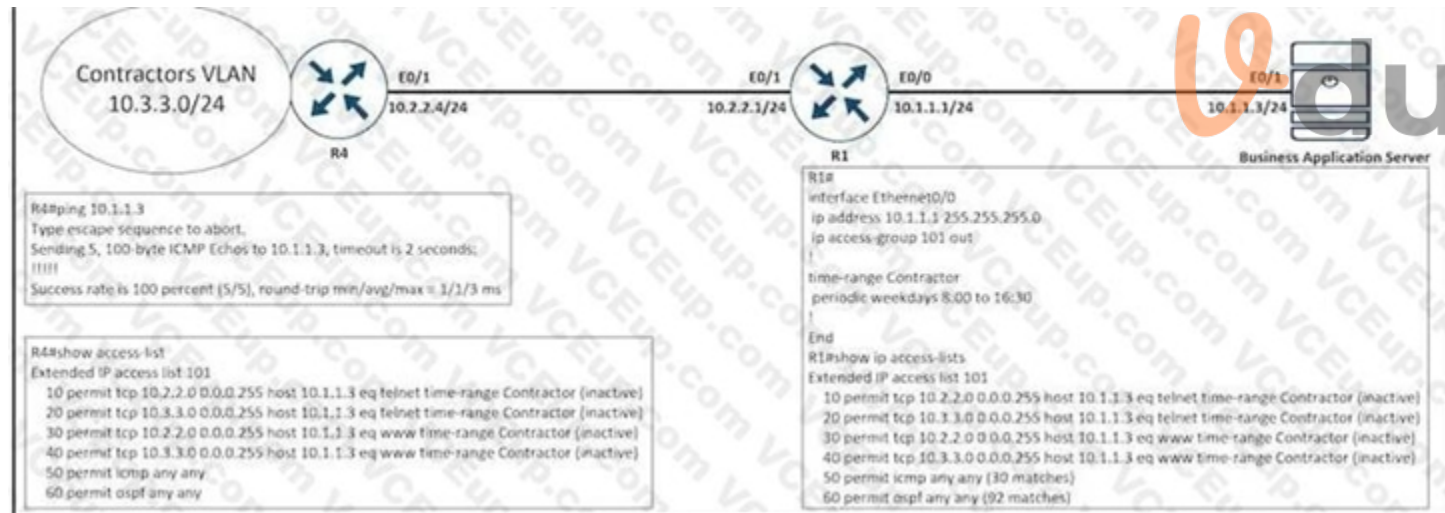
- A. tunnel protection mode ipv6
- B. ipv6 unicast-routing
- C. ipv6 nhrp holdtime 30
- D. tunnel mode gre multipoint ipv6

Correct Answer: D

Section:

QUESTION 97

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

Correct Answer: B

Section:

QUESTION 98

Refer to the exhibit.

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



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

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

Correct Answer: A

Section:

QUESTION 99

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.

Correct Answer: C

Section:

QUESTION 100

Which mechanism must be chosen to optimize the reconvergence time for OSPF at company location 407173257 that is less CPU-intensive than reducing the hello and dead timers?

- A. BFD
- B. Dead Peer Detection keepalives
- C. SSO
- D. OSPF demand circuit

Correct Answer: A

Section:

QUESTION 101

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

Correct Answer: D

Section:

Explanation:

Reference:

https://www.cisco.com/c/en/us/td/docs/routers/7600/ios/15S/configuration/guide/7600_15_0s_book/ifindx.pdf

**QUESTION 102**

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

Correct Answer: A, D

Section:

QUESTION 103

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

Correct Answer: A, E

Section:

QUESTION 104

Refer to the exhibit. An engineer must establish multipoint GRE tunnels between hub router R6 and branch routers R1, R2, and R3. Which configuration accomplishes this task on R1?

A.

```
interface Tunnel 1
ip address 192.168.1.1 255.255.255.0
tunnel source e0/1
tunnel mode gre multipoint
ip nhrp nhs 192.168.1.6
ip nhrp map 192.168.1.6 192.1.10.6
```

B.

```
interface Tunnel 1
ip address 192.168.1.1 255.255.255.0
tunnel source e0/1
tunnel mode gre multipoint
ip nhrp network-id 1
ip nhrp nhs 192.168.1.6
ip nhrp map 192.168.1.6 192.1.10.1
ip nhrp map 192.168.1.2 192.1.20.2
ip nhrp map 192.168.1.3 192.1.30.3
```

C.

```
interface Tunnel 1
ip address 192.168.1.1 255.255.255.0
tunnel source e0/0
tunnel mode gre multipoint
ip nhrp nhs 192.168.1.6
ip nhrp map 192.168.1.6 192.1.10.1
ip nhrp map 192.168.1.2 192.1.20.2
ip nhrp map 192.168.1.3 192.1.30.3
```

D.

```
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 nhs 192.168.1.6
ip nhrp map 192.168.1.6 192.1.10.6
```

Correct Answer: D

Section:



QUESTION 105

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.

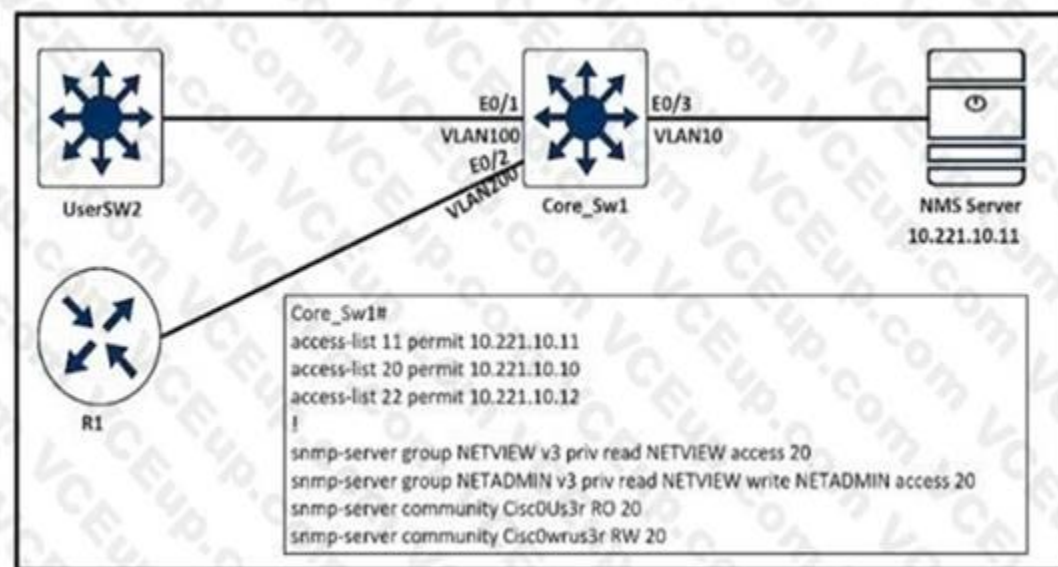
```
interface loopback0
ip address 4.4.4.4 255.255.255.0
ip ospf interface type network
```

Correct Answer: A

Section:

QUESTION 106

Refer to the exhibit.



vdumps

An engineer configured SNMP communities on the Core_SW1, but the SNMP server cannot obtain information from Core_SW1. Which configuration resolves this issue?

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

Correct Answer: B

Section:

QUESTION 107

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.

Correct Answer: C

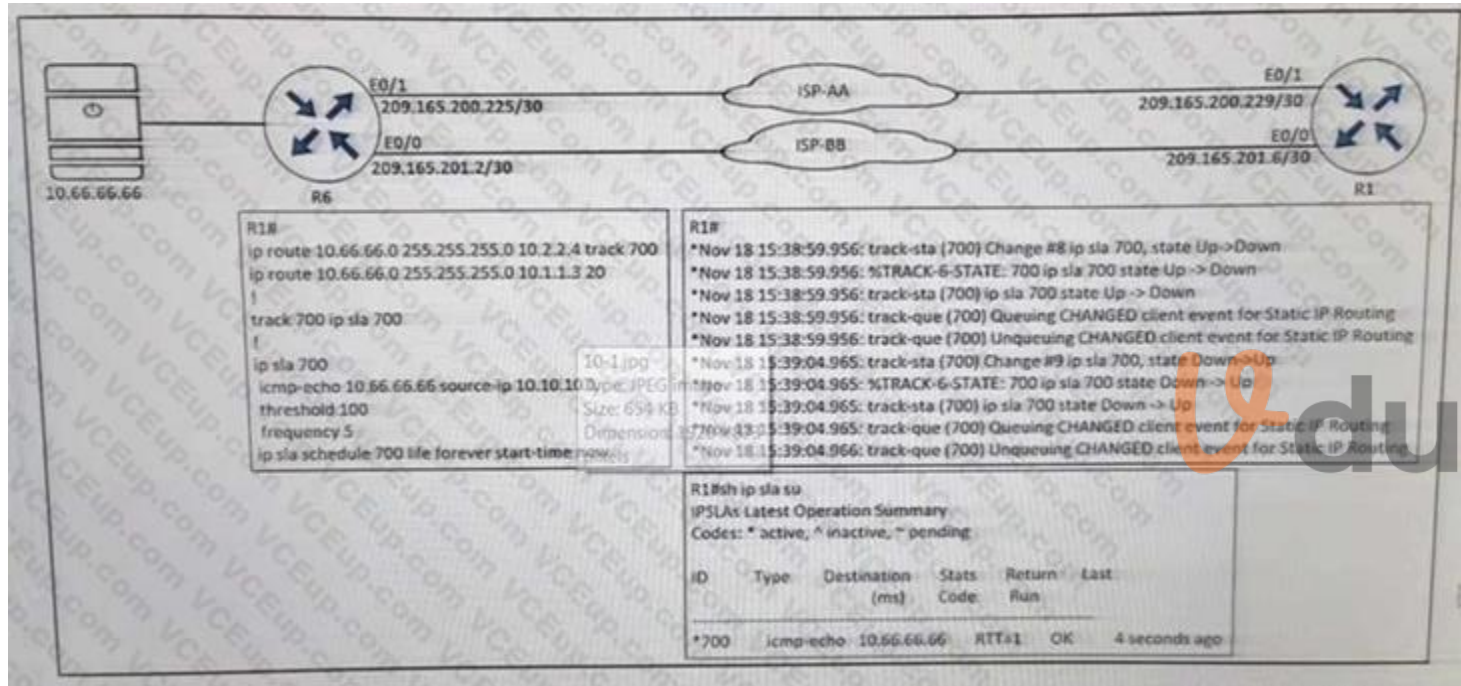
Section:

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-book/mp-te-diffserv-aw.html

QUESTION 108

Refer to the exhibit.



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

Which configuration resolves the issue?

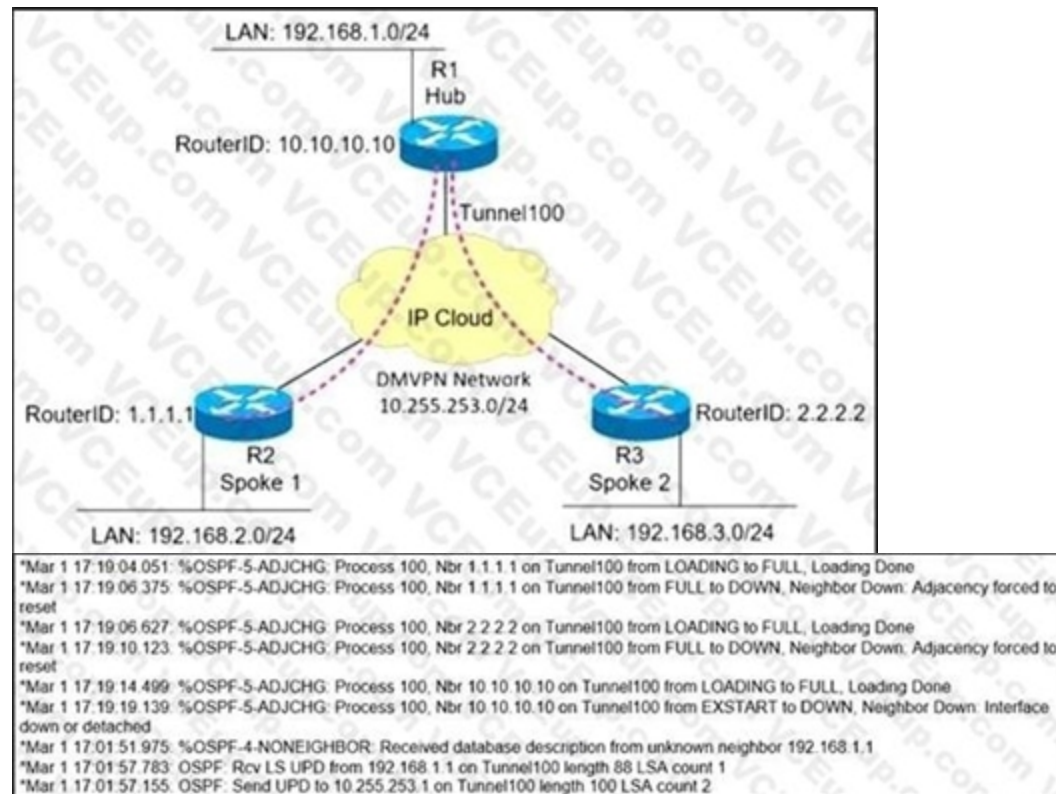
- A. R1(config)#ip sla 700
R1(config-ip-sla)#delay down 30 up 20
- B. R1(config)#ip sla 700
R1(config-ip-sla)#delay down 20 up 30
- C. R1(config)#track 700 ip sla 700
R1(config-track)#delay down 30 up 20
- D. R1(config)#track 700 ip sla 700
R1(config-track)#delay down 20 up 30

Correct Answer: C

Section:

QUESTION 109

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

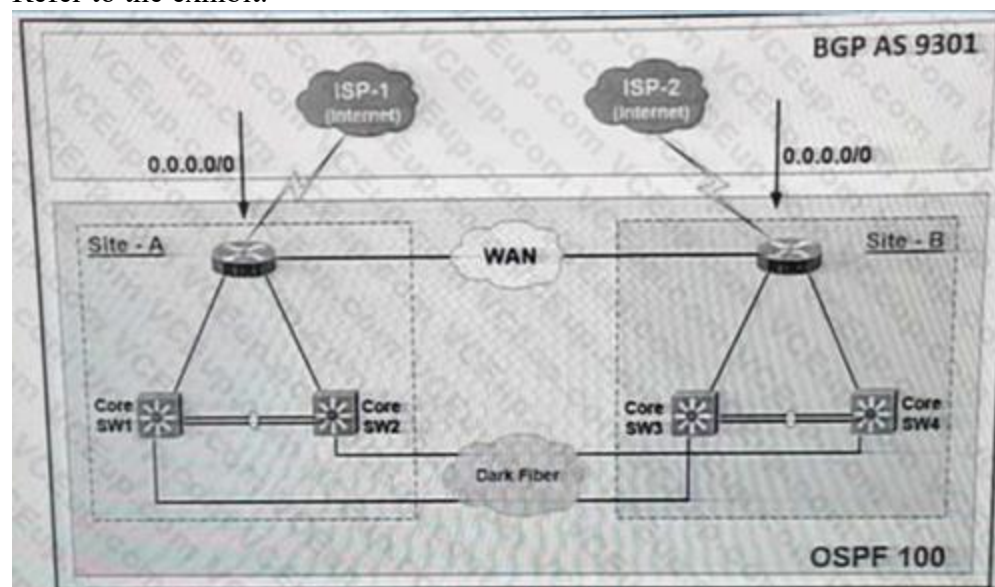


Correct Answer: A

Section:

QUESTION 110

Refer to the exhibit.



The Internet traffic should always prefer Site-A ISP-1 if the link and BGP connection are up; otherwise, all Internet traffic should go to ISP-2 Redistribution is configured between BGP and OSPF

routing protocols and it is not working as expected. What action resolves the issue?

- A. Set metric-type 2 at Site-A RTR1, and set metric-type 1 at Site-B RTR2
- B. Set OSPF cost 100 at Site-A RTR1, and set OSPF Cost 200 at Site-B RTR2
- C. Set OSPF cost 200 at Site: A RTR1 and set OSPF Cost 100 at Site-B RTR2
- D. Set metric-type 1 at Site-A RTR1, and set metric-type 2 at Site-B RTR2

Correct Answer: D

Section:

QUESTION 111

Refer to the exhibit.



The AP status from Cisco DNA Center Assurance Dashboard shows some physical connectivity issues from access switch interface G1/0/14. Which command generates the diagnostic data to resolve the physical connectivity issues?

- A. test cable-diagnostics tdr interface GigabitEthernet1/0/14
- B. Check cable-diagnostics tdr interface GigabitEthernet1/0/14
- C. show cable-diagnostics tdr interface GigabitEthernet1/0/14
- D. Verify cable-diagnostics tdr interface GigabitEthernet1/0/14

Correct Answer: A

Section:

QUESTION 112

An engineer creates a Cisco DNA Center cluster with three nodes, but all the services are running on one host node. Which action resolves this issue?

- A. Restore the link on the switch interface that is connected to a cluster link on the Cisco DNA Center
- B. Click the master host node with all the services and select services to be moved to other hosts
- C. Enable service distribution from the Systems 360 page.
- D. Click system updates, and upgrade to the latest version of Cisco DNA Center.

Correct Answer: C

Section:

QUESTION 113

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

172.16.16.0/20

172.16.3.0/24

172.16.4.0/24

192.168.1.0/24

192.168.2.0/24

172.16.0.0/16

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

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

Correct Answer: A

Section:

QUESTION 114

Refer to the exhibit.





```
Engineer PC Console Switch
Switch#
!
line con 0
 logging synchronous
line aux 0
line vty 0 4
 password cisco@123
 login
 transport input ssh telnet
!
end
```

An engineer must block access to the console ports for all corporate remote Cisco devices based on the recent corporate security policy but the security team still can connect through the console port. Which configuration on the console port resolves the issue?

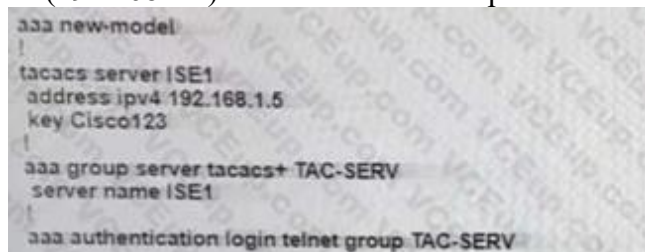
- A. transport input telnet
- B. login and password
- C. no exec
- D. exec 0.0

Correct Answer: C

Section:

QUESTION 115

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 4 login authentication TAC-SERV

- C. line vty 0 4 login authentication telnet
- D. tacacs-server host 192.168.1.5 key Cisco123

Correct Answer: C

Section:

QUESTION 116

Refer to the exhibit.

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



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

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

authorization exec

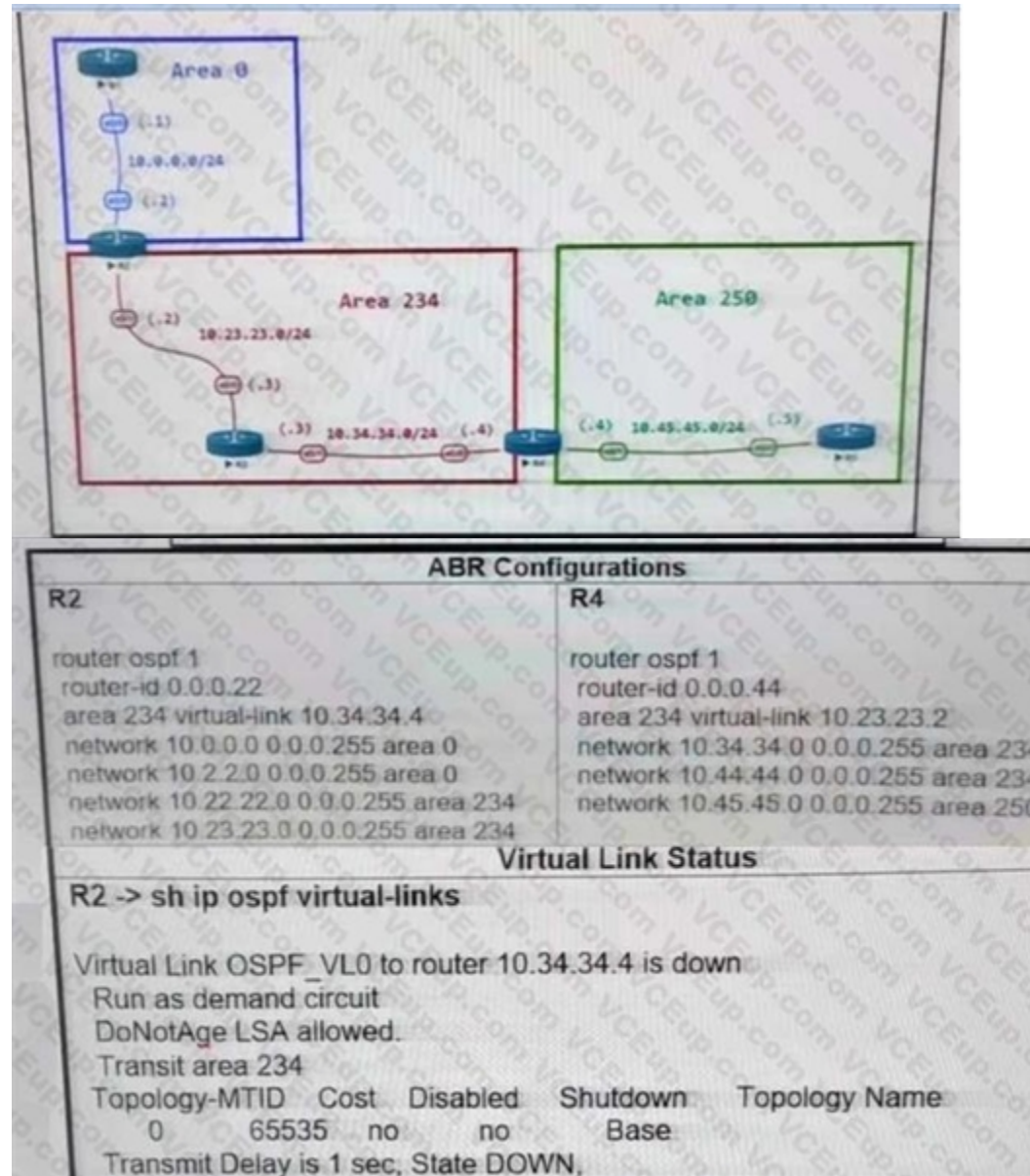
```
D. line con 0
aaa authorization console
authorization priv15
!
line vty 0 4
transport input ssh
```

Correct Answer: A

Section:

QUESTION 117

Refer to the exhibit.



The network administrator configured the network to connect two disjointed networks and all the connectivity is up except the virtual link which causes area 250 to be unreachable. Which two configurations resolve this issue? (Choose two.)

```
A. R4
router ospf 1
no area 234 virtual-link 10.23.23.2
```

area 234 virtual-link 0.0.0.22

- B. R4
router ospf 1
no area area 234 virtual-link 10.23.23.2
area 0 virtual-link 0.0.0.22
- C. R2
router ospf 1
no area area 234 virtual-link 10.34.34.4
area 0 virtual-link 0.0.0.44
- D. R2
router ospf 1
router-id 10.23.23.2
- E. R2
router ospf 1
no area 234 virtual-ink 10.34.34.4
area 234 virtual-link 0.0.0.44

Correct Answer: A, E

Section:

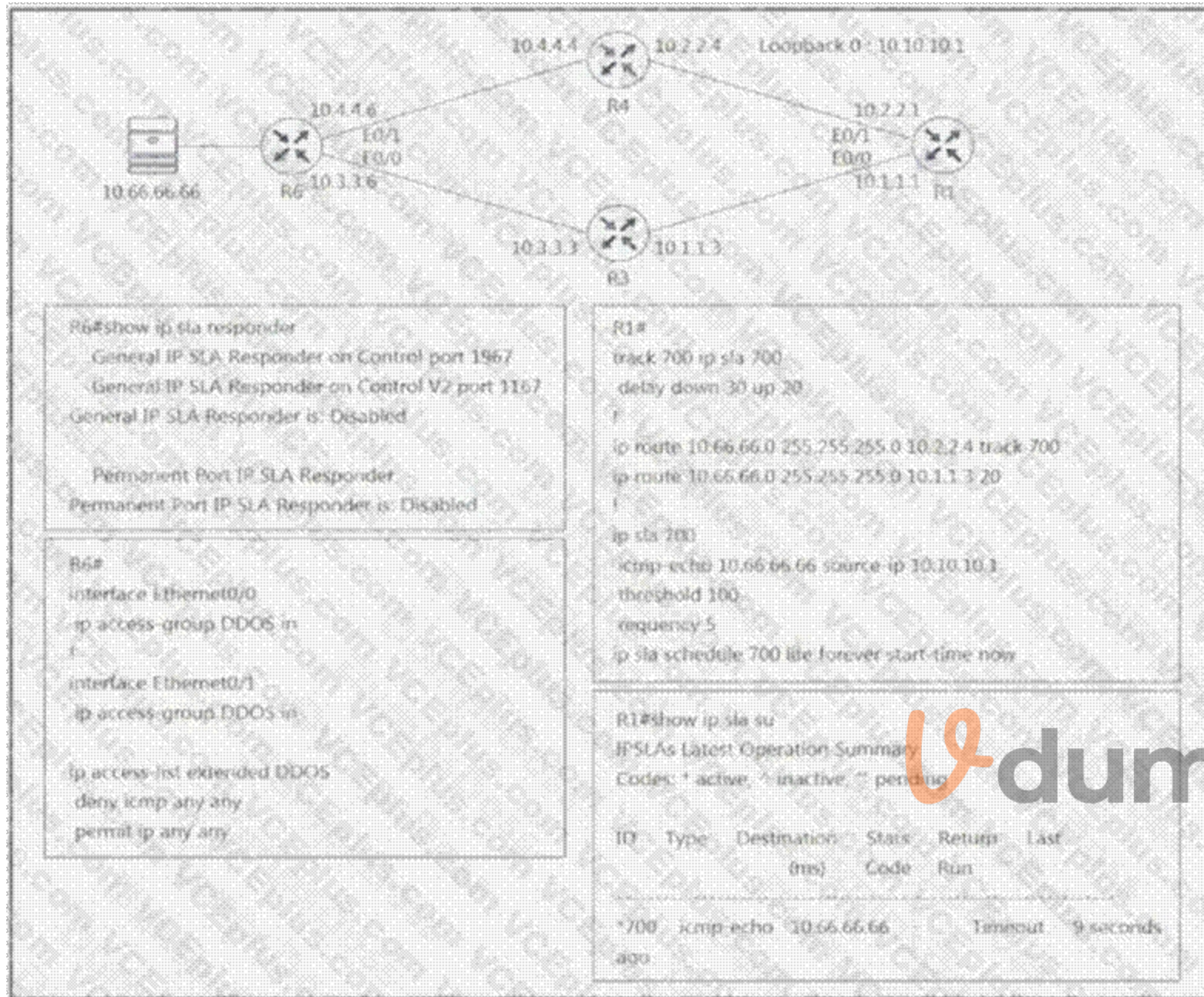
Explanation:

Reference: <https://www.cisco.com/c/en/us/support/docs/ip/open-shortest-path-first-ospf/13703-8.html>

QUESTION 118

Refer to the exhibit.





R1 is configured with IP SLA to check the availability of the server behind R6 but it kept failing. Which configuration resolves the issue?

- A. R6(config)# ip sla responder
- B. R6(config)# ip sla responder udp-echo ip address 10.10.10.1 port 5000
- C. R6(config)# ip access-list extended DDOS
R6(config ext-nac)# 5 permit icmp host 10.66.66.66 host 10.10.10.1
- D. R6(config)# ip access-list extended DDOS
R6(config ext-nac)# 5 permit icmp host 10.10.10.1 host 10.66.66.66

Correct Answer: D

Section:

Explanation:

In this IP SLA tracking, we don't need a IP SLA Responder so the command `ip sla responder` on R6 is not necessary. We also notice that the ACL is blocking ICMP packets on both interfaces E0/0 & E0/1 of R6 so we need to allow ICMP from source 10.10.10.1 to destination 10.66.66.66.

QUESTION 119

Which mechanism provides traffic segmentation within a DMVPN network?

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

Correct Answer: D

Section:

QUESTION 120

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

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

Correct Answer: D, E

Section:

Explanation:

IPv6 Source Guard uses the IPv6 First-Hop Security Binding Table to drop traffic from unknown sources or bogus IPv6 addresses not in the binding table. The switch also tries to recover from lost address information, querying DHCPv6 server or using IPv6 neighbor discovery to verify the source IPv6 address after dropping the offending packet(s). Reference: <https://blog.ipSPACE.net/2013/07/first-hop-ipv6-security-features-in.html>

QUESTION 121

How does an MPLS Layer 3 VPN differentiate the IP address space used between each VPN?

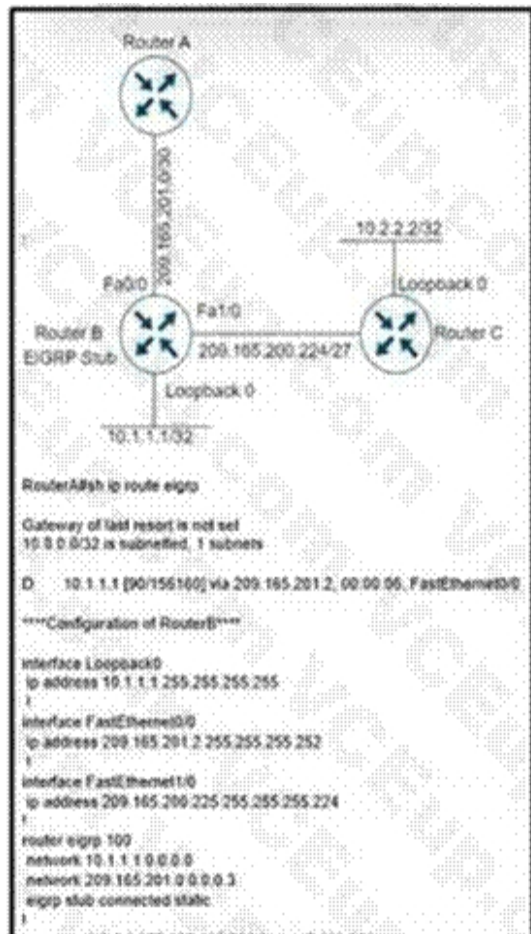
- A. by RD
- B. by address family
- C. by MP-BGP
- D. byRT

Correct Answer: A

Section:

QUESTION 122

Refer to the exhibit.



```

interface Loopback0
ip address 10.1.1.1 255.255.255.255
!
interface FastEthernet0/0
ip address 209.165.201.2 255.255.255.252
!
interface FastEthernet1/0
ip address 209.165.200.225 255.255.255.224
!
router eigrp 100
network 10.1.1.1 0.0.0.0
network 209.165.201.0 0.0.0.3
eigrp stub connected static
!
ip route 10.2.2.2 255.255.255.255 209.165.200.229

```



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

- A.
- ```

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

```

B.



```
router eigrp 100
network 209.165.200.224 0.0.0.7
```

C.

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

D.

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

**Correct Answer: D**

**Section:**

**QUESTION 123**

Which router attaches the VPN label to incoming packets from CE routing?

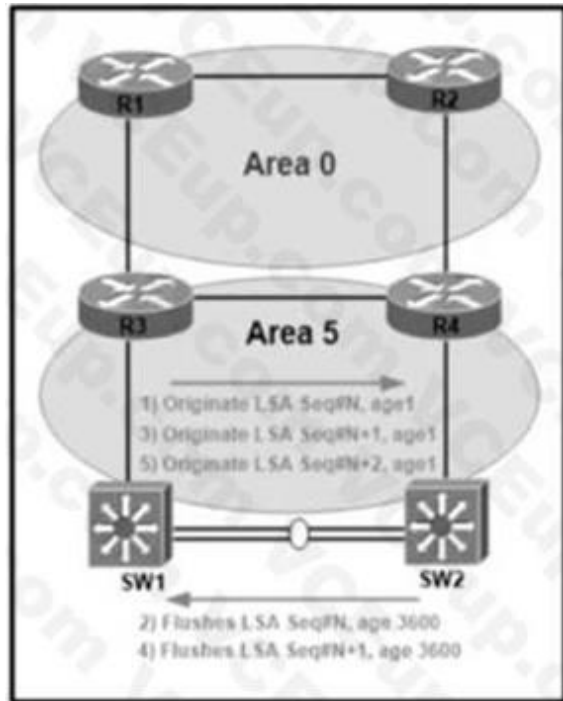
- A. CE router
- B. core router
- C. P router
- D. PE router

**Correct Answer: D**

**Section:**

**QUESTION 124**

Refer to the exhibit.



An error message "an OSPF-4-FLOOD\_WARNING" 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

**Correct Answer: D**

**Section:**

**QUESTION 125**

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
O 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

Correct Answer: B  
Section:

QUESTION 126  
Refer to the exhibit.



```
R2# show ip ospf neighbor
R2#
R2# debug ip ospf hello

*Feb 22 23:46:58.699: OSPF-1 HELLO Et1/1: Rcv hello from
10.255.255.1 area 0 10.0.23.1
*Feb 22 23:46:58.703: OSPF-1 HELLO Et1/1: Mismatched hello
parameters from 10.0.23.1
*Feb 22 23:46:58.703: OSPF-1 HELLO Et1/1: Dead R 30 C 20, Hello
R 10 C 10 Mask R 255.255.255.0 C 255.255.255.0
```

The connected routers do not show up as OSPF neighbors. Which action resolves the issue?

- A. Change the R1 dead timer to 20.
- B. Change the R2 dead timer to 20.
- C. Change the R2 hello timer to 20.
- D. Change the R1 hello timer to 20.

**Correct Answer: A**

**Section:**

#### QUESTION 127

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

**Correct Answer: D**

**Section:**



**QUESTION 128**

Refer to the exhibit.

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

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

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

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

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

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

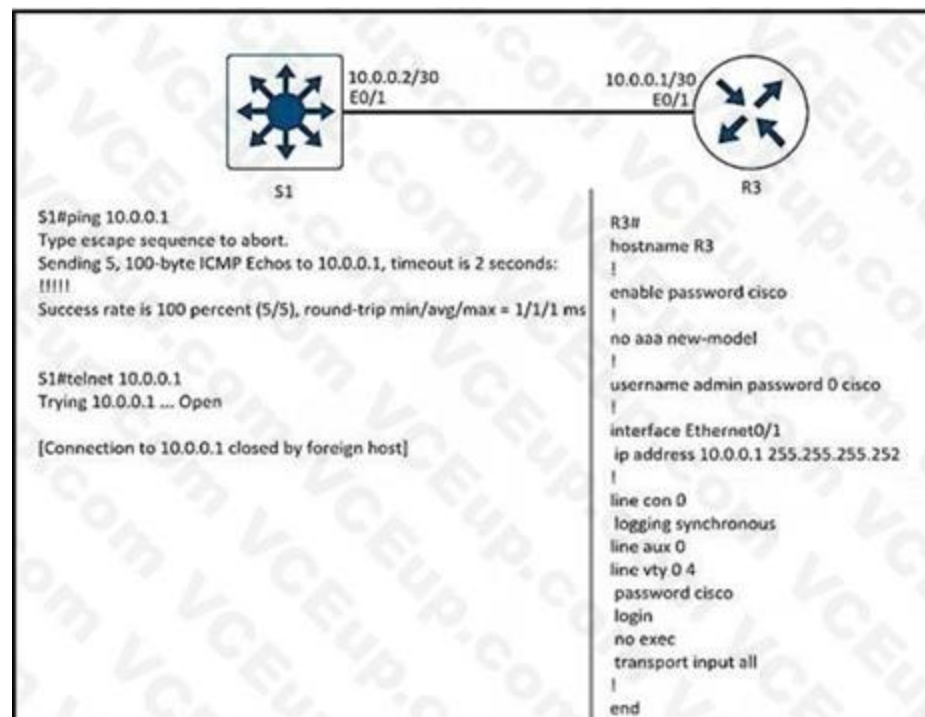
**Correct Answer: D**

**Section:**

**QUESTION 129**

Refer to the exhibit.





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

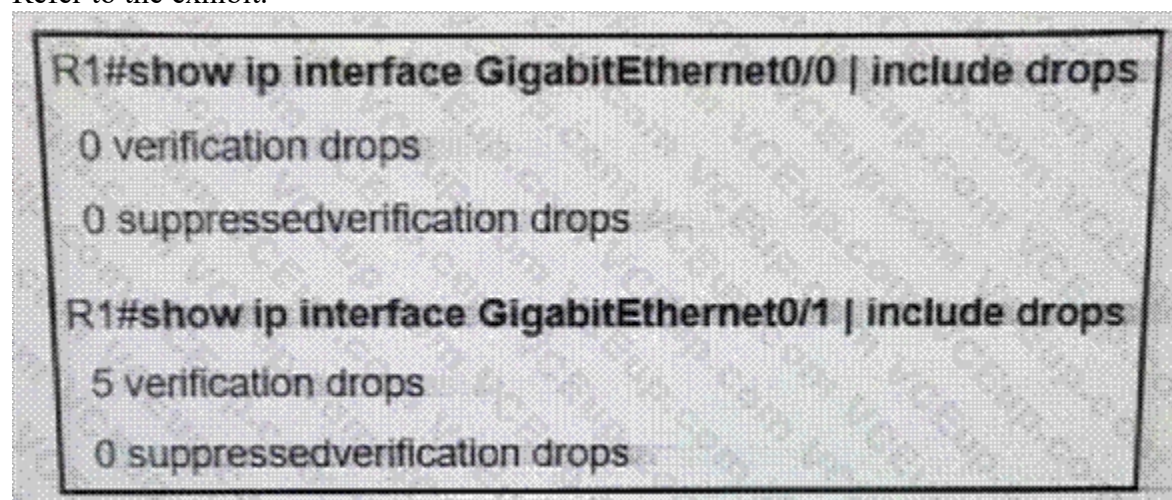
- A. Allow the inbound connection via the exec command on R3.
- B. Add the transport input telnet command on R3.
- C. Allow to use the ssh -I admin 10.0.0.1 command on the switch.
- D. Add the login admin command on the switch.

**Correct Answer: A**

**Section:**

**QUESTION 130**

Refer to the exhibit.



R1 is configured with uRPF, and ping to R1 is failing from a source present in the R1 routing table via the GigabitEthernet 0/0 interface. Which action resolves the issue?

- A. Remove the access list from the interface GigabitEthernet 0/0
- B. Modify the uRPF mode from strict to loose
- C. Enable Cisco Express Forwarding to ensure that uRPF is functioning correctly



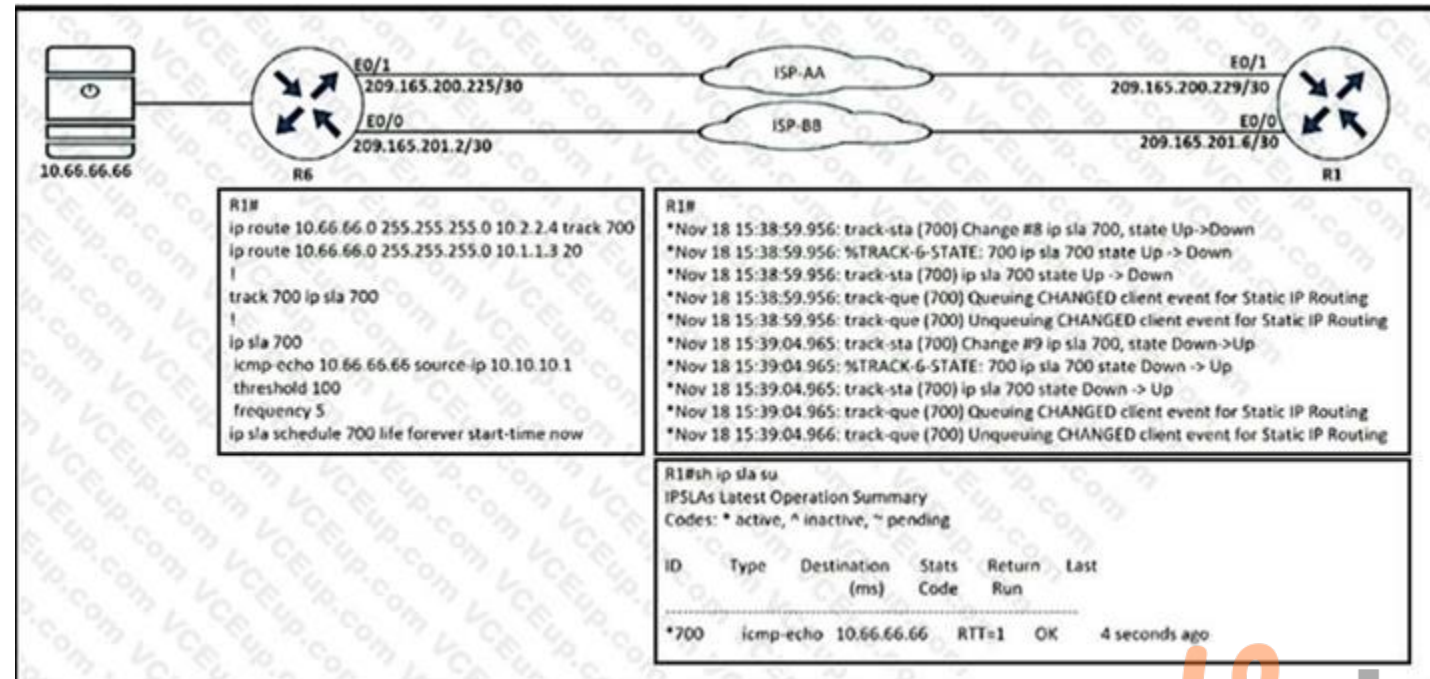
D. Add a floating static route to the source on R1 to the GigabitEthernet 0/1 interface

Correct Answer: B

Section:

### QUESTION 131

Refer to the exhibit.



R1 is configured with IP SLA to check the availability of the server behind R6 but it kept failing. Which configuration resolves the issue?

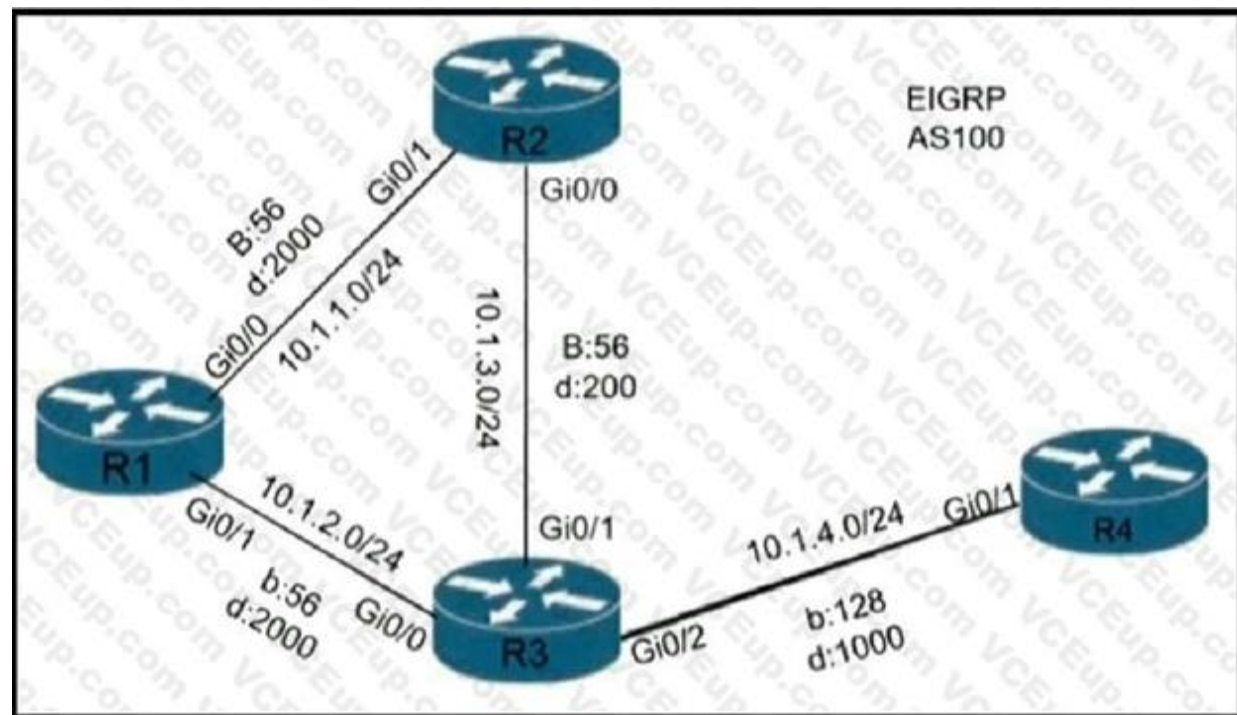
- A. R1(config)# ip sla 700  
R1(config-track)# delay down 30 up 20
- B. R1(config)# ip sla 700  
R1(config-track)# delay down 20 up 30
- C. R1(config)# track 700 ip sla 700  
R1(config-track)# delay down 30 up 20
- D. R1(config)# track 700 ip sla 700  
R1(config-track)# delay down 20 up 30

Correct Answer: C

Section:

### QUESTION 132

Refer to the exhibit.



A loop occurs between R1, R2, and R3 while EIGRP is run with poison reverse enabled. Which action prevents the loop between R1, R2, and R3?

- A. Configure route tagging
- B. Enable split horizon
- C. Configure R2 as stub receive-only
- D. Configure route filtering

**Correct Answer: C**  
**Section:**



**QUESTION 133**

A customer reports that traffic is not passing on an EIGRP enabled multipoint interface on a router configured as below: interface Serial0/0 no ip address interface Server0/0/0.9 multipoint ip address 10.1.1.1 255.255.255.248 ip split-horizon eigrp 1 Which action resolves the issue?

- A. Enable poison reverse
- B. Enable split horizon
- C. Disable poison reverse
- D. Disable split horizon

**Correct Answer: D**  
**Section:**

**QUESTION 134**

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



**Correct Answer: A**

**Section:**

**Explanation:**

<https://www.cisco.com/c/en/us/support/docs/security/dynamic-multipoint-vpn-dmvpn/111976-dmvpn-troubleshoot-00.html>

**QUESTION 135**

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.

**Correct Answer: C, E**

**Section:**

**Explanation:**

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

**QUESTION 136**

An engineer configured a router with this configuration ip access-hst DENY TELNET 10 deny tcp any any eq 23 log-input The router console starts receiving log message :%SEC-6-IPACCESSLOGP: list DENY\_TELNET denied tcp

192.168.1.10(1022)(FastEthernet1/0 D508.89gb.003f) ->192.168.2.20(23), 1 packet" Which action stops messages on the console while still denying Telnet?

- A. Configure a 20 permit ip any any command
- B. Remove log-Input keyword from the access list.
- C. Replace log-input keyword with the log keyword in the access list.
- D. Configure a 20 permit ip any any log-input command.



**Correct Answer: B**

**Section:**

**QUESTION 137**

Refer to the exhibit.

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

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

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

**Correct Answer: A, E**

**Section:**

#### QUESTION 138

Which IPv6 first hop security feature controls the traffic necessary for proper discovery of neighbor device operation and performance?

- A. RA Throttling
- B. Source or Destination Guard
- C. ND Multicast Suppression
- D. IPv6 Snooping

**Correct Answer: D**

**Section:**

**Explanation:**

#### QUESTION 139

DRAG DROP



Drag and drop the OSPF adjacency states from the left onto the correct descriptions on the right.

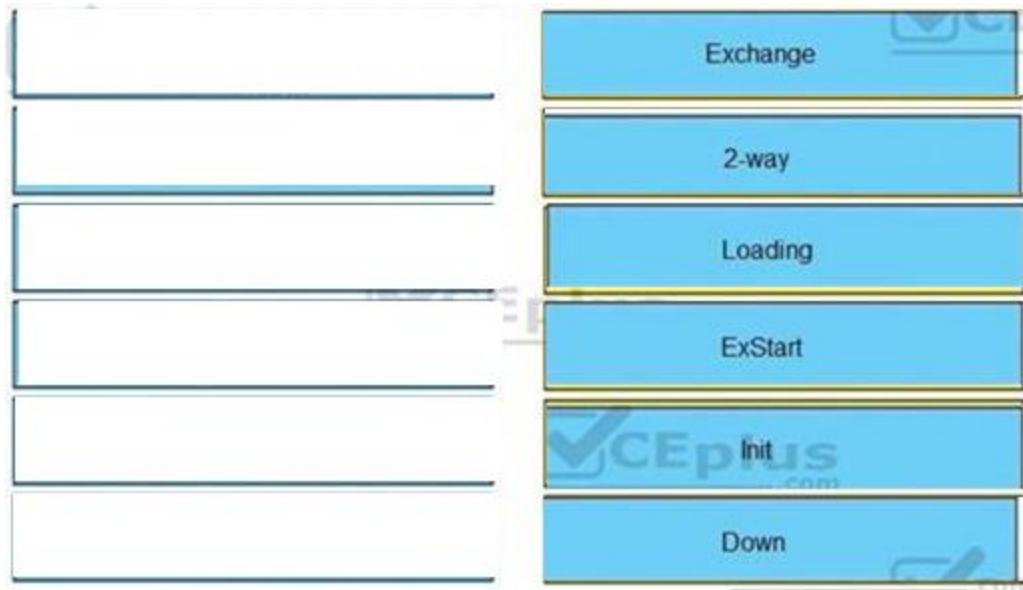
|          |                                                                                    |
|----------|------------------------------------------------------------------------------------|
| Init     | Each router compares the DBD packets that were received from the other router.     |
| 2-way    | Routers exchange information with other routers in the multiaccess network.        |
| Down     | The neighboring router requests the other routers to send missing entries.         |
| Exchange | The network has already elected a DR and a backup BDR.                             |
| ExStart  | The OSPF router ID of the receiving router was not contained in the hello message. |
| Loading  | No hellos have been received from a neighbor router.                               |

Select and Place:

|          |                                                                                    |
|----------|------------------------------------------------------------------------------------|
| Init     | Each router compares the DBD packets that were received from the other router.     |
| 2-way    | Routers exchange information with other routers in the multiaccess network.        |
| Down     | The neighboring router requests the other routers to send missing entries.         |
| Exchange | The network has already elected a DR and a backup BDR.                             |
| ExStart  | The OSPF router ID of the receiving router was not contained in the hello message. |
| Loading  | No hellos have been received from a neighbor router.                               |

Correct Answer:





**Section:**

**Explanation:**

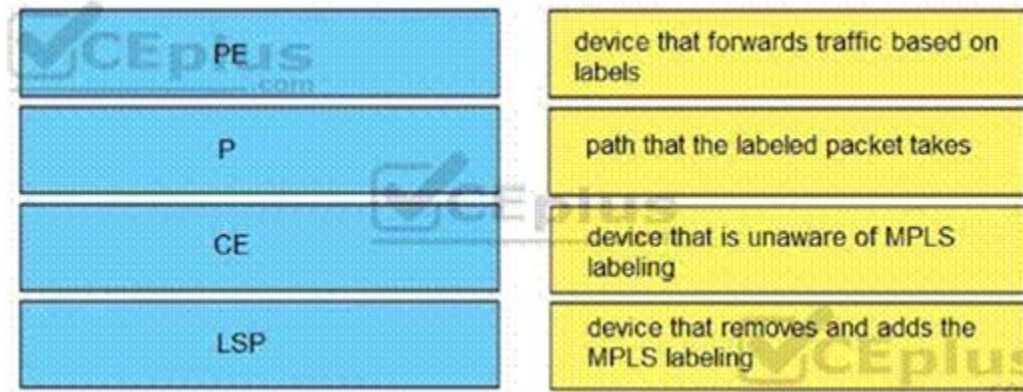
Reference: <https://www.cisco.com/c/en/us/support/docs/ip/open-shortest-path-first-ospf/13685-13.html>

**QUESTION 140**

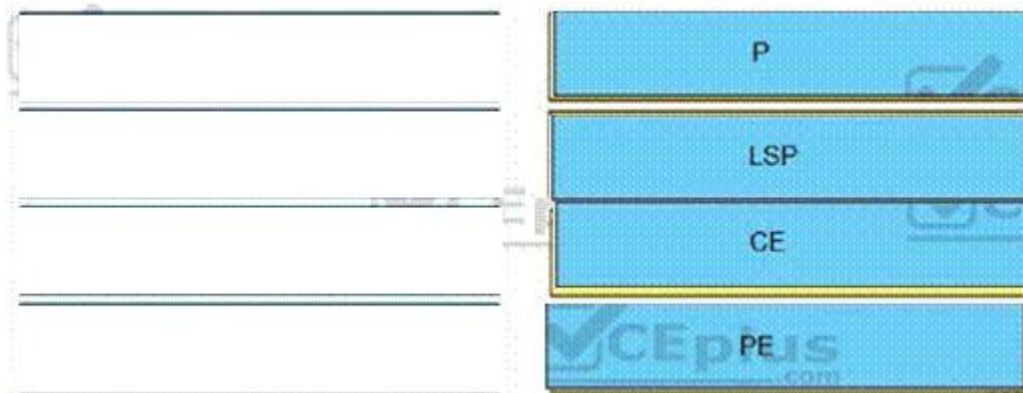
**DRAG DROP**

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

**Select and Place:**



**Correct Answer:**



**Section:**

**Explanation:**



**QUESTION 141**

DRAG DROP

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

Select and Place:

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

Correct Answer:

|  |                               |
|--|-------------------------------|
|  | multiprotocol BGP             |
|  | Resource Reservation Protocol |
|  | route distinguisher           |
|  | route target                  |



Section:

Explanation:

**QUESTION 142**

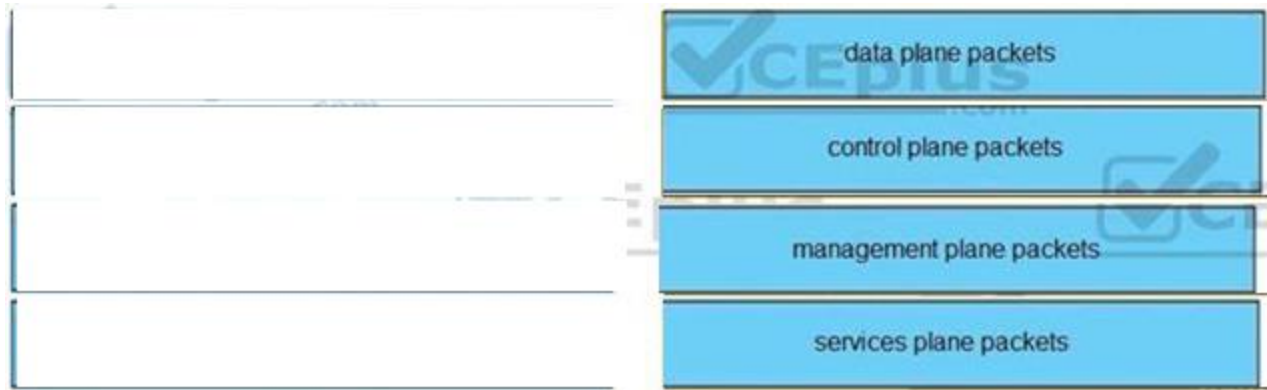
DRAG DROP

Drag and drop the packet types from the left onto the correct descriptions on the right.

Select and Place:

|                          |                                                                                                                                                                            |
|--------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| data plane packets       | user-generated packets that are always forwarded by network devices to other end-station devices                                                                           |
| control plane packets    | network device generated or received packets that are used for the creation of the network itself                                                                          |
| management plane packets | network device generated or received packets; packets that are used to operate the network                                                                                 |
| services plane packets   | user-generated packets that are forwarded by network devices to other end-station devices, but that require higher priority than the normal traffic by the network devices |

Correct Answer:



Section:  
Explanation:



**QUESTION 143**

DRAG DROP

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

Select and Place:

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

Correct Answer:

|  |                    |
|--|--------------------|
|  | IPv6 DHCPv6 Guard  |
|  | IPv6 ND Inspection |
|  | IPv6 Source Guard  |
|  | IPv6 RA Guard      |
|  | IPv6 Binding Table |

Section:

Explanation:

**QUESTION 144**

DRAG DROP

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

Select and Place:

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



Correct Answer:

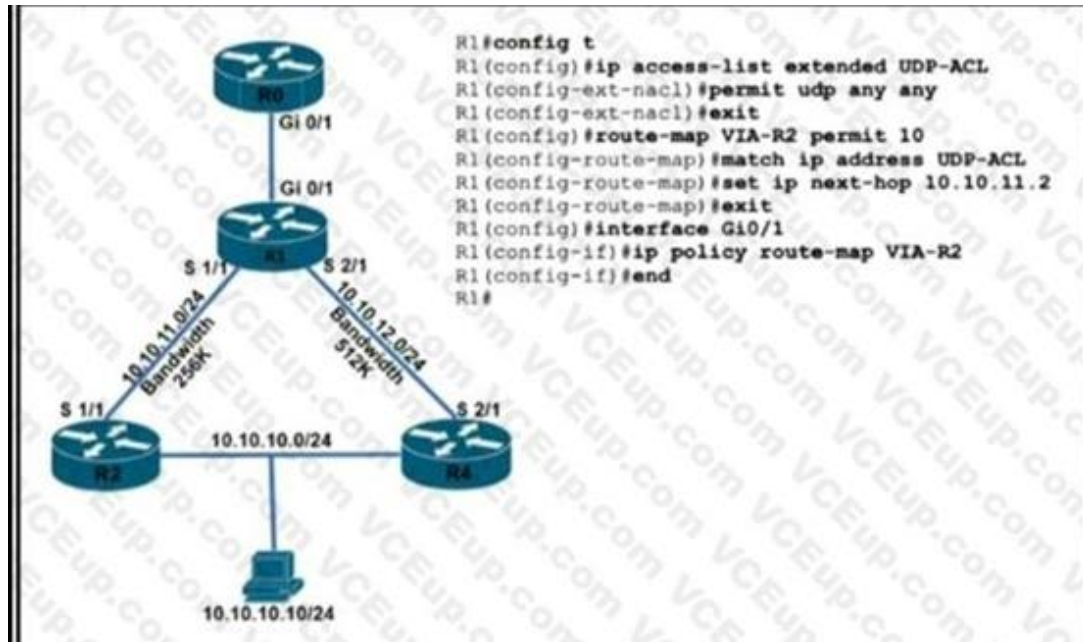
|  |                              |
|--|------------------------------|
|  | penultimate hop popping      |
|  | label edge router            |
|  | forwarding equivalence class |
|  | label switch router          |

Section:

Explanation:

**QUESTION 145**

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.

**Correct Answer: C**  
**Section:**



**QUESTION 146**

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

```

interface tunnel30
ip mtu 1400
ip tcp packet-size 1360
!
crypto ipsec fragmentation after-encryption

interface tunnel30
ip mtu 1400
ip tcp payload-size 1360
!
crypto ipsec fragmentation before-encryption

interface tunnel30
ip mtu 1400
ip tcp adjust-mss 1360
!
crypto ipsec fragmentation after-encryption

 interface tunnel30
ip mtu 1400
ip tcp max-segment 1360
!
crypto ipsec fragmentation before-encryption

```

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

**Correct Answer: C**



Section:

**QUESTION 147**

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 0x80000180 0x00276C
10.255.255.4 10.255.255.1 3604 0x80000180 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 0x001C8C
0

*Feb 22 22:50:39.523: %OSPF-4-FLOOD_WARN: 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.

**Correct Answer: B**

Section:

**QUESTION 148**

What is the function of BFD?

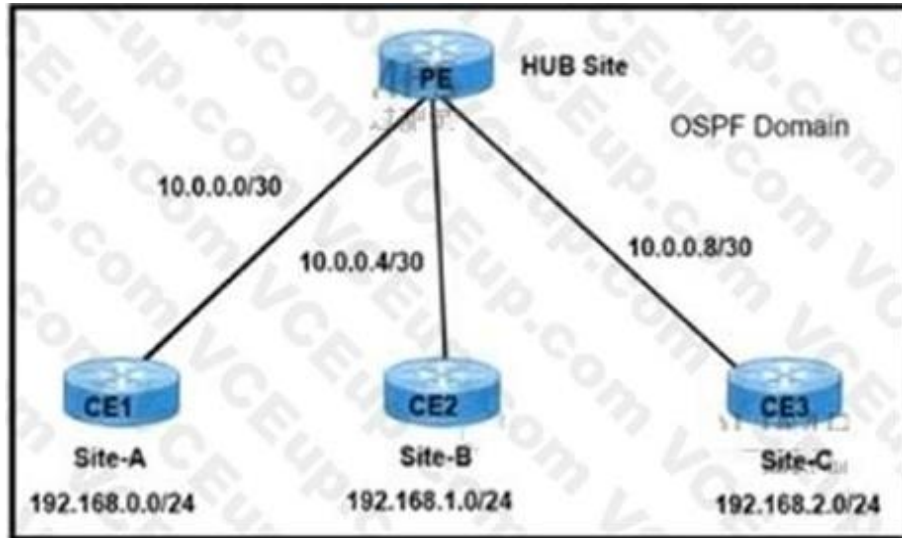
- A. It provides uniform failure detection regardless of media type.
- B. It creates high CPU utilization on hardware deployments.
- C. It negotiates to the highest version if the neighbor version differs.
- D. It provides uniform failure detection on the same media type.

**Correct Answer: A**

Section:

**QUESTION 149**

Refer to the exhibit.



A network engineer must establish communication between three different customer sites with these requirements:

Site-A: must be restricted to access to any users at Site-B or Site-C.

Site-B and Site-C must be able to communicate between sites and share routes using OSPF.

```

PE interface configuration:
interface FastEthernet0/0
ip vrf forwarding Site-A
!
interface FastEthernet0/1
ip vrf forwarding SharedSites
!
interface FastEthernet0/2
ip vrf forwarding SharedSites

```

Which configuration meets the requirements?

- PE(config)#router ospf 10 vrf Site-A  
PE(config-router)#network 0.0.0.0 255.255.255.255 area 0  
PE(config)#router ospf 10 vrf SharedSites  
PE(config-router)#network 0.0.0.0 255.255.255.255 area 1
- PE(config)#router ospf 10 vrf Site-A  
PE(config-router)#network 0.0.0.0 255.255.255.255 area 0  
PE(config)#router ospf 10 vrf SharedSites  
PE(config-router)#network 0.0.0.0 255.255.255.255 area 0
- PE(config)#router ospf 10 vrf Site-A  
PE(config-router)#network 0.0.0.0 255.255.255.255 area 0  
PE(config)#router ospf 20 vrf SharedSites  
PE(config-router)#network 0.0.0.0 255.255.255.255 area 0
- PE(config)#router ospf 10 vrf Site-A  
PE(config-router)#network 0.0.0.0 255.255.255.255 area 0  
PE(config)#router ospf 20 vrf SharedSites  
PE(config-router)#network 0.0.0.0 255.255.255.255 area 1

Which configuration meets the requirements?

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

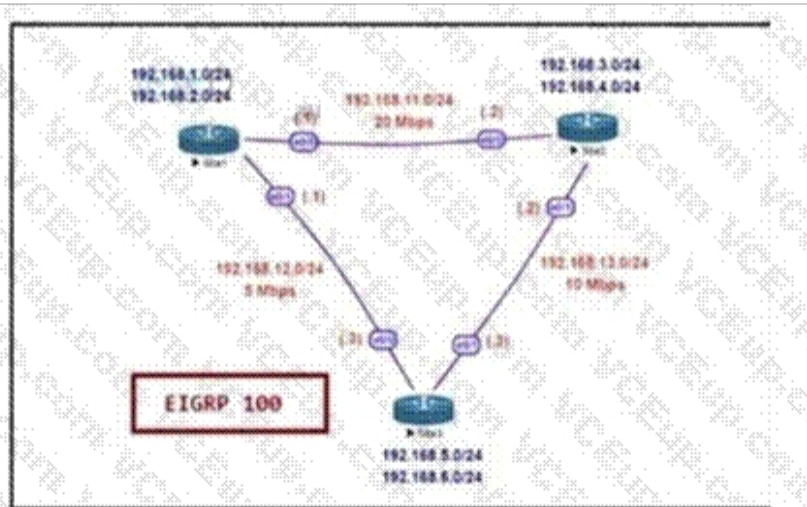
**Correct Answer: C**



Section:

QUESTION 150

Refer to the exhibit.



```
Site1 - Show ip route
Gateway of last resort is not set
192.168.1.0/24 is variably subnetted, 2 subnets, 2 masks
C: 192.168.1.0/24 is directly connected, Loopback0
L: 192.168.1.1/32 is directly connected, Loopback0
D: 192.168.3.0/24 [90/281600] via 192.168.11.2, 00:00:23, Ethernet0/0
D: 192.168.4.0/24 [90/281600] via 192.168.11.2, 00:00:23, Ethernet0/0
D: 192.168.5.0/24 [90/663200] via 192.168.12.3, 00:00:23, Ethernet0/1
D: 192.168.6.0/24 [90/663200] via 192.168.12.3, 00:00:23, Ethernet0/1
D: 192.168.6.0/24 [90/663200] via 192.168.11.2, 00:00:23, Ethernet0/0
D: 192.168.6.0/24 [90/663200] via 192.168.12.3, 00:00:23, Ethernet0/1
D: 192.168.11.0/24 is variably subnetted, 2 subnets, 2 masks
C: 192.168.11.0/24 is directly connected, Ethernet0/0
L: 192.168.11.102 is directly connected, Ethernet0/0
```

```
D 192.168.13.0/24 [90/563200] via 192.168.12.3, 00:00:23, Ethernet0/1
 [90/307200] via 192.168.11.2, 00:00:23, Ethernet0/0

Site1 - Show ip eigrp topology
P 192.168.3.0/24, 1 successors, FD is 230400
 via 192.168.11.2 (281600/128256), Ethernet0/0
 via 192.168.12.3 (691200/204800), Ethernet0/1
P 192.168.12.0/24, 1 successors, FD is 537600
 via Connected, Ethernet0/1
P 192.168.13.0/24, 2 successors, FD is 307200
 via 192.168.12.3 (563200/76800), Ethernet0/1
 via 192.168.11.2 (307200/281600), Ethernet0/0
P 192.168.1.0/24, 1 successors, FD is 128256
 via Connected, Loopback0
P 192.168.6.0/24, 2 successors, FD is 435200
 via 192.168.12.3 (665600/128256), Ethernet0/1
 via 192.168.11.2 (435200/409600), Ethernet0/0
P 192.168.4.0/24, 1 successors, FD is 230400
 via 192.168.11.2 (281600/128256), Ethernet0/0
 via 192.168.12.3 (691200/204800), Ethernet0/1
P 192.168.5.0/24, 2 successors, FD is 435200
 via 192.168.12.3 (665600/128256), Ethernet0/1
 via 192.168.11.2 (435200/409600), Ethernet0/0
P 192.168.11.0/24, 1 successors, FD is 153600
 via Connected, Ethernet0/0

Site1 - Show run | section router eigrp
router eigrp 100
 variance 2
 network 192.168.1.0
 network 192.168.2.0
 network 192.168.11.0
 network 192.168.12.0
```



Refer to the exhibit.

Refer to the exhibit. Site1 must perform unequal cost load balancing toward the segments behind Site2 and Site3. Some of the routes are getting load balanced but others are not. Which configuration allows Site1 to load balance toward all the LAN segments of the remote routers?

Site2  
router eigrp 100  
variance 3

Site2  
router eigrp 100  
variance 2

Site3  
router eigrp 100  
variance 2

Site1  
router eigrp 100  
variance 3

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

**Correct Answer: D**  
**Section:**

**QUESTION 151**  
Refer to the exhibit.



```

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 AS01:2011:7:100::/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

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?

```
sequence 20 permit tcp host 1001:ABC:2011:7::1 host 400A:0:400C::1 eq telnet
sequence 20 deny tcp host 400A:0:400C::1 host 1001:ABC:2011:7::1 eq telnet
sequence 20 deny tcp host 1001:ABC:2011:7::1 host 400A:0:400C::1 eq telnet
sequence 20 permit tcp host 400A:0:400C::1 host 1001:ABC:2011:7::1 eq telnet
```

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

**Correct Answer: C**

**Section:**

#### QUESTION 152

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

```
#logging buffered 4096 critical
(config)#logging buffered 16000 informational
#logging buffered 16000 critical
(config)#logging buffered 4096 informational
```

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

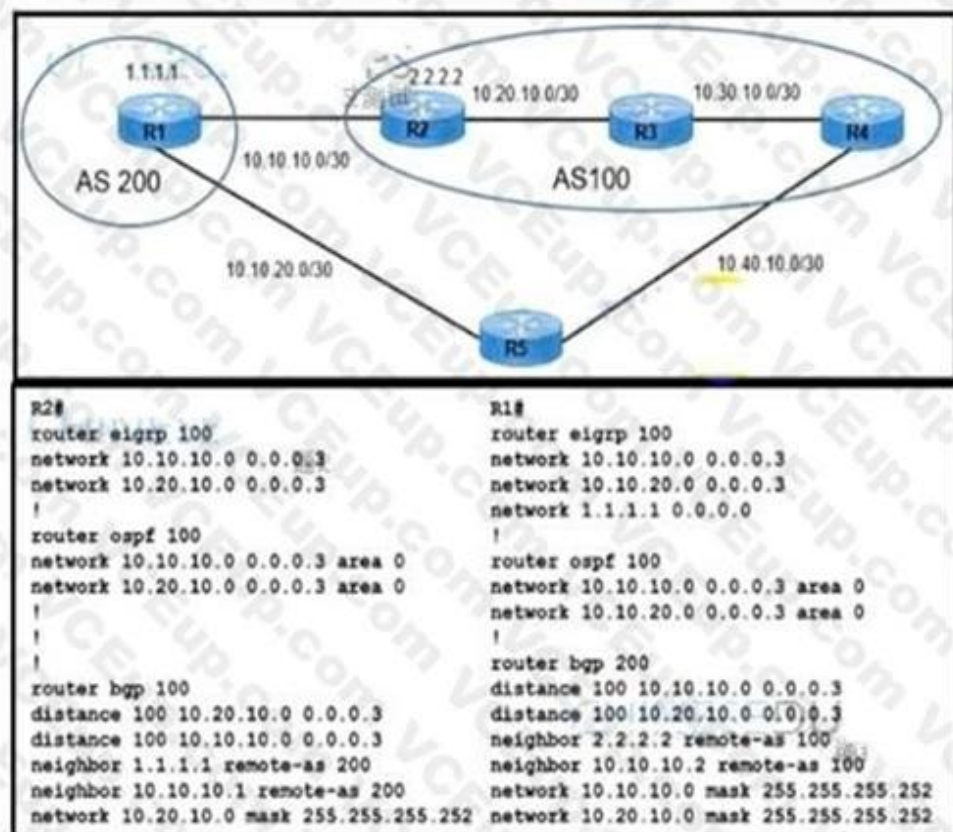
**Correct Answer: B**

**Section:**

#### QUESTION 153

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

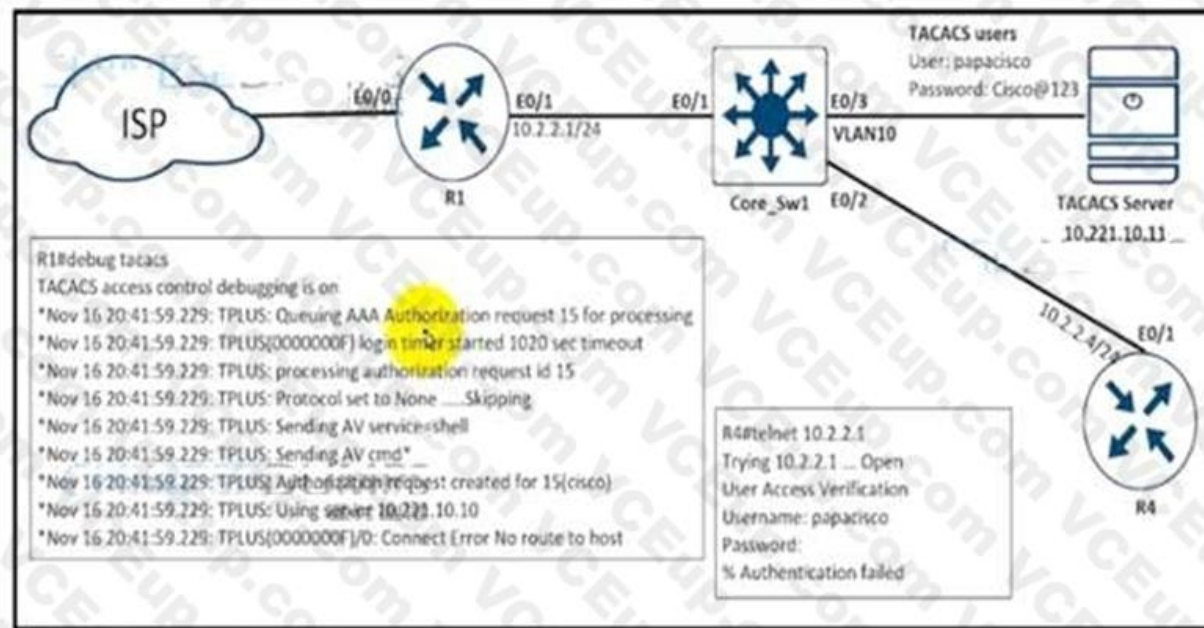
**Correct Answer: B**

**Section:**

**QUESTION 154**

Refer to the exhibit.





An engineer is trying to connect to R1 via Telnet with no success. Which configuration resolves the issue?

```

tacacs server prod
 address ipv4 10.221.10.10
 exit

ip route 10.221.10.10 255.255.255.255 ethernet 0/1

tacacs server prod
 address ipv4 10.221.10.11
 exit

ip route 10.221.0.11 255.255.255.255 ethernet 0/1

```



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

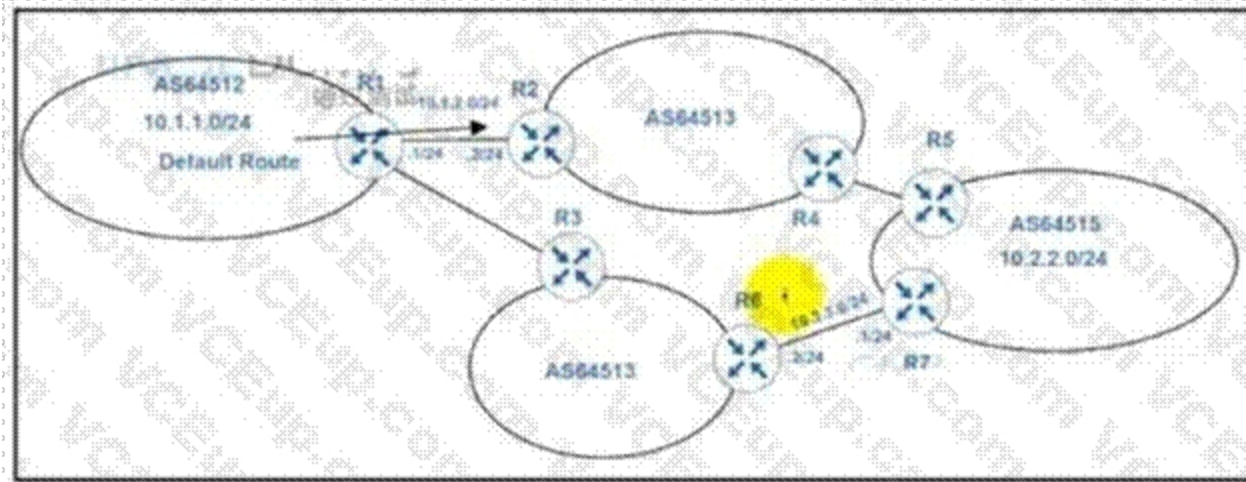
**Correct Answer: B**

**Section:**

**QUESTION 155**

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?

```

Option A:
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

Option B:
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

Option C:
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

Option D:
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

**Correct Answer: B**

**Section:**

**QUESTION 156**

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?

- Configure the `aaa authentication login admin group admin local enable` command instead.
- Configure the `aaa authentication login admin group tacacs+ local enable none` command instead.
- Configure the `aaa authentication login admin group tacacs+ local if-authenticated` command instead.
- Configure the `aaa authentication login default group admin local if-authenticated` command instead.

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

**Correct Answer: C**  
**Section:**

**QUESTION 157**  
Refer to the exhibit.

```

Router#show ip bgp vpvv4 rd 1100:1001:10.30.116.0/23
BGP routing table entry for 1100:1001:10.30.116.0/23, version 26765275
Paths: (9 available, best #1, no table)
 Advertised to update-groups:
 1 2 3
(65001 64955 65003) 65089 (Received from a RR-client)
172.16.254.226 (metric 20645) from 172.16.224.236 (172.16.224.236)
 Origin IGP, metric 0, localpref 100, valid, confed-internal
 Extended Community: RT:1100:1001
 mp: labels in/out notabel/362
(65000 64955 65003) 65089
172.16.254.226 (metric 20645) from 10.131.123.71 (10.131.123.71)
 Origin IGP, metric 0, localpref 100, valid, confed-external
 Extended Community: RT:1100:1001
 mp: labels in/out notabel/362
(65001 64955 65003) 65089
172.16.254.226 (metric 20645) from 172.16.216.253 (172.16.216.253)
 Origin IGP, metric 0, localpref 100, valid, confed-external
 Extended Community: RT:1100:1001
 mp: labels in/out notabel/362
(65001 64955 65003) 65089
172.16.254.226 (metric 20645) from 172.16.216.252 (172.16.216.252)
 Origin IGP, metric 0, localpref 100, valid, confed-external
 Extended Community: RT:1100:1001
 mp: labels in/out notabel/362
(64955 65003) 65089
172.16.254.226 (metric 20645) from 10.77.255.57 (10.77.255.57)
 Origin IGP, metric 0, localpref 100, valid, confed-external
 Extended Community: RT:1100:1001
 mp: labels in/out notabel/362
(64955 65003) 65089
172.16.254.226 (metric 20645) from 10.57.255.11 (10.57.255.11)
 Origin IGP, metric 0, localpref 100, valid, confed-external, best
 Extended Community: RT:1100:1001
 mp: labels in/out notabel/362

```

```

(64955 65003) 65089
172.16.254.226 (metric 20645) from 172.16.224.253 (172.16.224.253)
 Origin IGP, metric 0, localpref 100, valid, confed-internal
 Extended Community: RT:1100:1001
 mp: labels in/out notabel/362
(65003) 65089
172.16.254.226 (metric 20645) from 172.16.254.234 (172.16.254.234)
 Origin IGP, metric 0, localpref 100, valid, confed-external
 Extended Community: RT:1100:1001
 mp: labels in/out notabel/362
65089 (Received from a RR-client)
172.16.228.226 (metric 20645) from 172.16.228.224 (172.16.228.224)
 Origin IGP, metric 0, localpref 100, valid, confed-internal
 Extended Community: RT:1100:1001
 mp: labels in/out notabel/278

```



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

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

**Correct Answer: D**

**Section:**

**QUESTION 158**

What is LDP label binding?

- A. neighboring router with label
- B. source prefix with label
- C. destination prefix with label

D. two routers with label distribution session

**Correct Answer: C**

**Section:**

**Explanation:**

For every IGP IP prefix in its IP routing table, each LSR creates a local binding—that is, it binds a label to the IPv4 prefix. The LSR then distributes this binding to all its LDP neighbors. These received bindings become remote bindings. The neighbors then store these remote and local bindings in a special table, the label information base (LIB). Each LSR has only one local binding

**QUESTION 159**

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

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

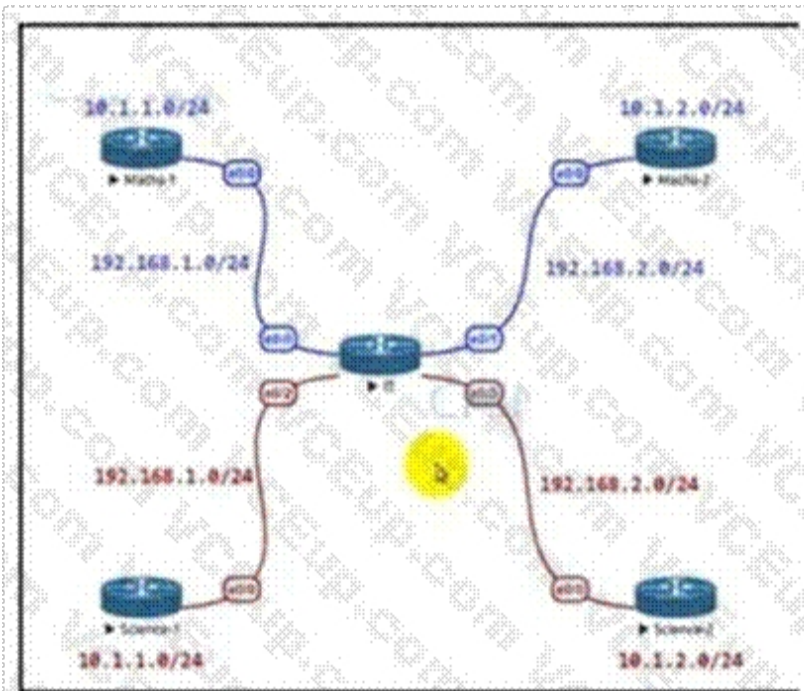
**Correct Answer: B**

**Section:**

**QUESTION 160**

Refer to the exhibit.





```

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

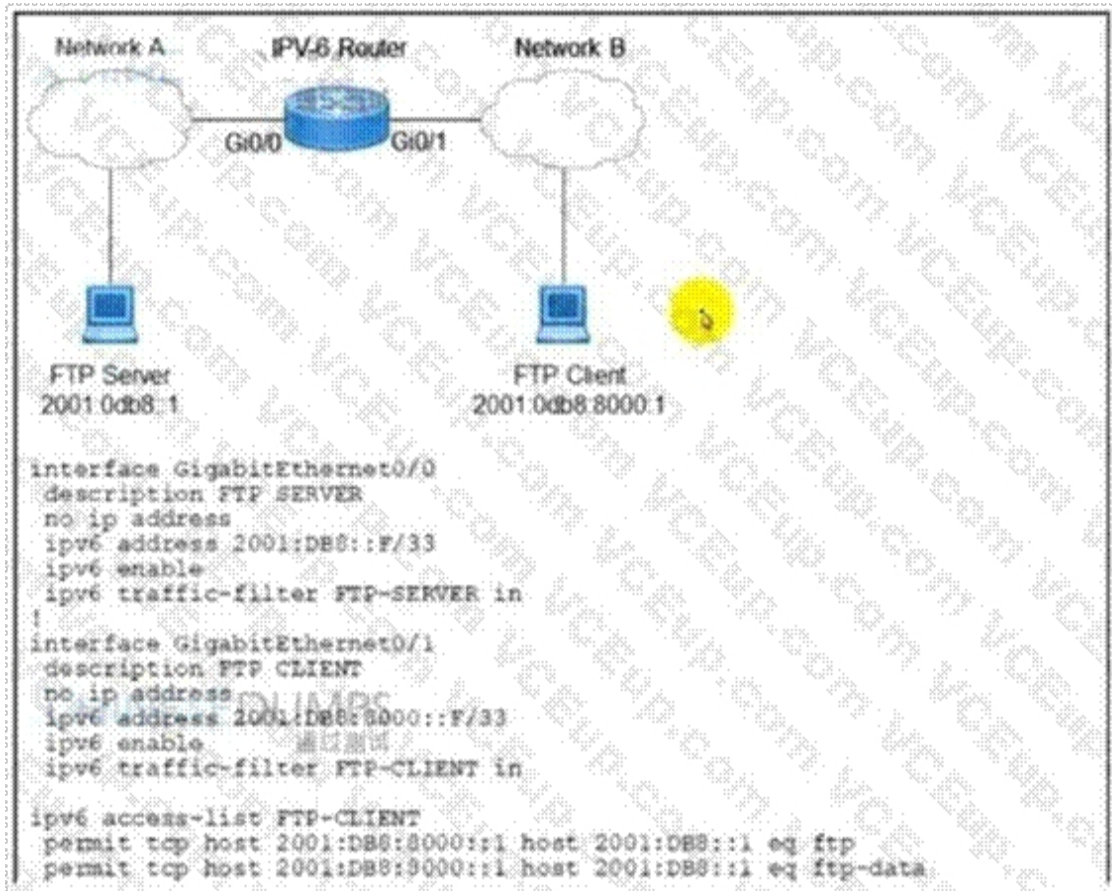
**Correct Answer: D**

**Section:**

**QUESTION 161**

Refer to the exhibit.







```

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.

**Correct Answer: D**

**Section:**

**QUESTION 162**

In a DMVPN network, the Spoke1 user observed that the voice traffic is coming to Spoke2 users via the hub router. Which command is required on both spoke routers to communicate directly to one another?

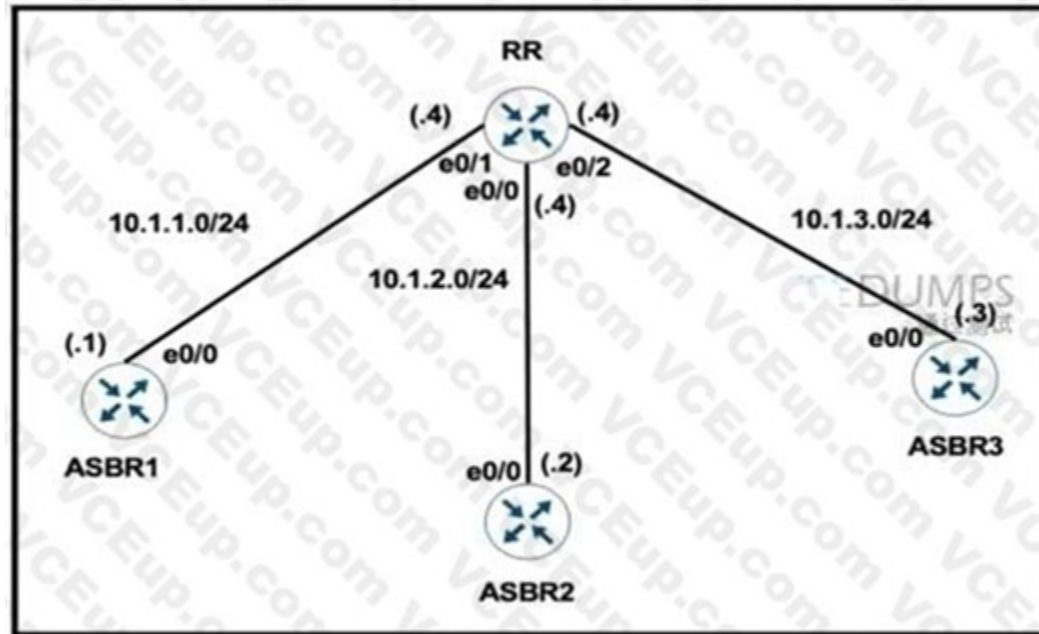
- A. ip nhrp map dynamic
- B. ip nhrp shortcut
- C. ip nhrp nhs multicast
- D. ip nhrp redirect

**Correct Answer: B**

**Section:**

**QUESTION 163**

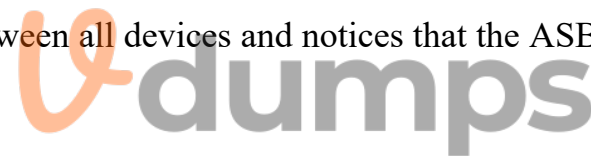
Refer to the exhibit.



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

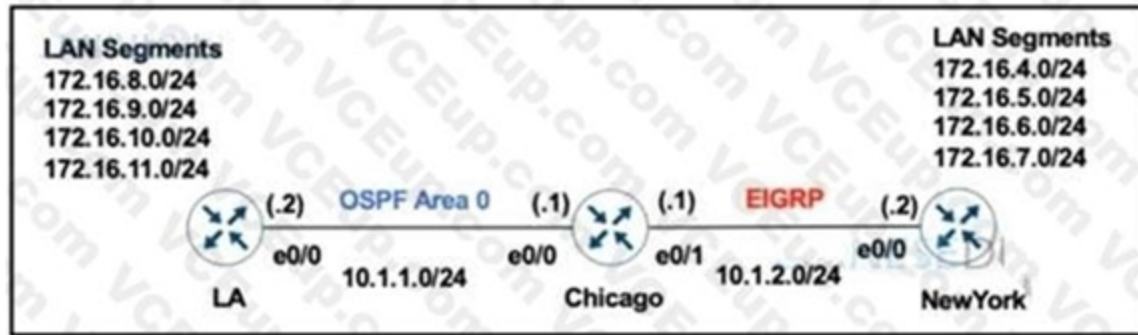
**Correct Answer: D**

**Section:**

**QUESTION 164**

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?

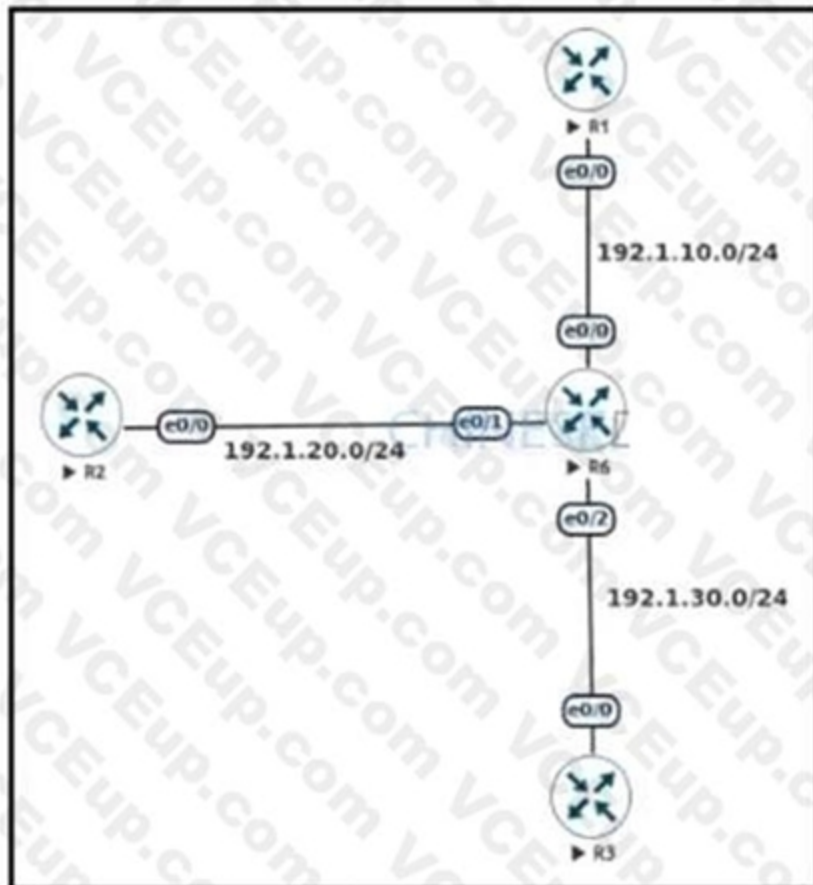
- interface E 0/1  
ip summary-address eigrp 100 172.16.0.0 255.255.0.0
- interface E 0/1  
ip summary-address eigrp 100 172.16.8.0 255.255.252.0
- router eigrp 100  
summary-address 172.16.8.0 255.255.252.0
- router eigrp 100  
summary-address 172.16.0.0 255.255.0.0



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

**Correct Answer: B**  
**Section:**

**QUESTION 165**  
Refer to the exhibit.



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



```

Interface Tunnel1
 ip address 192.168.1.1 255.255.255.0
 tunnel source e 0/0
 tunnel mode gre multipoint
 ip nhrp network-id 1

```

```

interface Tunnel1
 ip nhrp authentication Cisco123
 ip nhrp map multicast dynamic
 ip nhrp network-id 1
 ip nhrp holdtime 300
 ip nhrp redirect

```

```

interface Tunnel1
 ip nhrp authentication Cisco123
 ip nhrp map multicast dynamic
 ip nhrp network-id 1
 ip nhrp holdtime 300
 ip nhrp shortcut

```

```

Interface Tunnel 1
 ip address 192.168.1.1 255.255.255.0
 tunnel source e 0/1
 tunnel mode gre multipoint
 ip nhrp network-id 1
 ip nhrp map 192.168.1.2 192.1.20.2

```

A. Option A

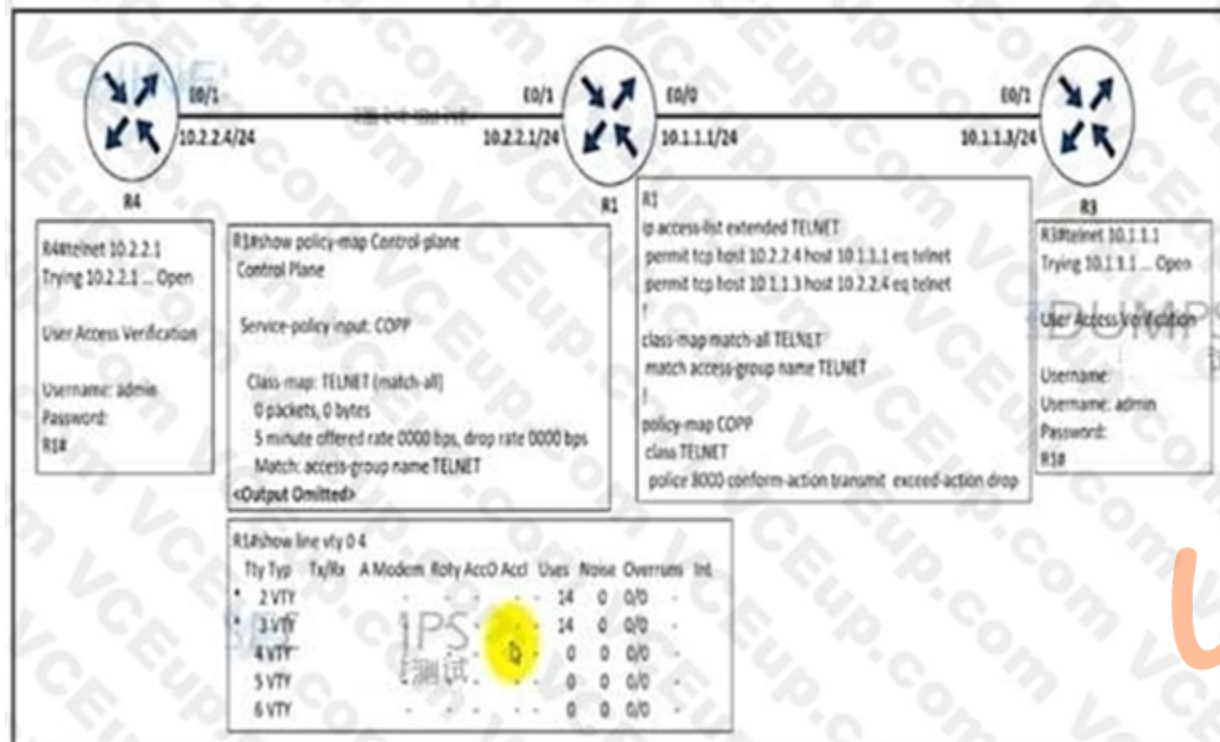
- B. Option B
- C. Option C
- D. Option D

Correct Answer: B

Section:

QUESTION 166

Refer to the exhibit.



**Vdumps**

An engineer implemented CoPP to limit Telnet traffic to protect the router CPU. It was noticed that the Telnet traffic did not pass through CoPP Which configuration resolves the issue?

```

policy-map COPP
class TELNET
police 8000 conform-action transmit exceed-action transmit

policy-map COPP
class TELNET
police 8000 conform-action transmit exceed-action transmit violate-action drop

ip access-list extended TELNET
permit tcp host 10.2.2.1 host 10.2.2.4 eq telnet
permit tcp host 10.1.1.1 host 10.1.1.3 eq telnet

ip access-list extended TELNET
permit tcp host 10.2.2.4 host 10.2.2.1 eq telnet
permit tcp host 10.1.1.3 host 10.1.1.1 eq telnet

```

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

Correct Answer: D

Section:

### QUESTION 167

Refer to the exhibit.



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

```
ip access-list extended OSPF
permit ospf any any

policy-map COPP
class OSFP
 police 8000 conform-action transmit exceed-action transmit violate-action drop

control-plane
service-policy input COPP

class-map match-all OSFP
match access-group name OSPF
```



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

**Correct Answer: B**

**Section:**

### QUESTION 168

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

```

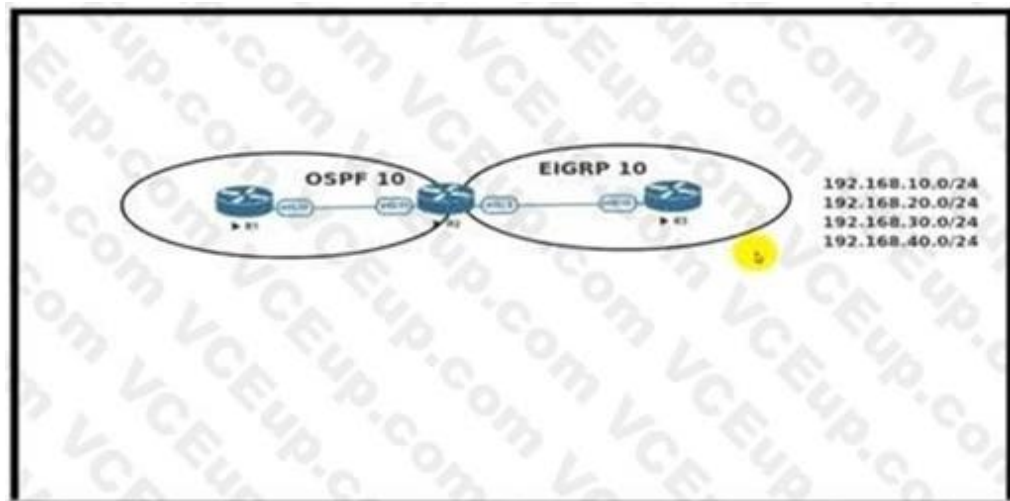
- A. Option A
- B. Option B
- C. Option C
- D. Option D

Correct Answer: B

Section:

QUESTION 169

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

**Correct Answer: B**

**Section:**

**QUESTION 170**

An administrator attempts to download the pack NBAR2 file using TFTP from the CPE router to another device over the Gi0/0 interface. The CPE is configured as below:

```

hostname CPE
|
ip access-list extended WAN
<...>
remark => All UDP rules below for WAN ID: S420T92E35F99
permit udp any eq domain any
permit udp any any eq tftp
deny udp any any
|
interface GigabitEthernet0/0
<...>
ip access-group WAN in
<...>
|
tftp-server flash:pp-adv-csr1000v-1612.1a-37-53.0.0.pack

```

The transfer fails. Which action resolves the issue?

- A. Change the WAN ACL to permit the UDP port 69 to allow TFTP
- B. Make the permit udp any eq tftp any entry the last entry in the WAN ACL.
- C. Change the WAN ACL to permit the entire UDP destination port range
- D. Shorten the file name to the 8+3 naming convention.

**Correct Answer: B**

**Section:**

#### QUESTION 171

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

**Correct Answer: C**

**Section:**

#### QUESTION 172

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.)



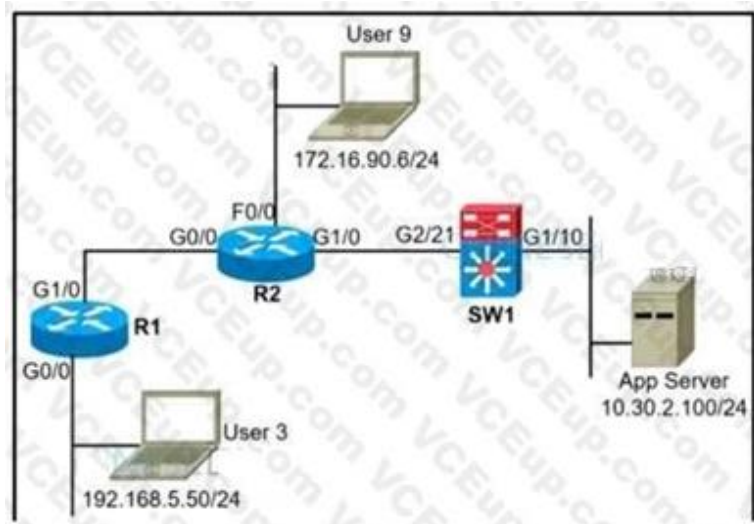
- A. Configure two static routes for the 8.8.8.8/32 destination to match the IP SLA probe for each ISP.
- B. Associate every IP SLA probe with the proper WAN address of the router.
- C. Reference the proper exit interfaces along with the next hops in both static default routes.
- D. Use a separate track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

**Correct Answer: A, E**

**Section:**

**QUESTION 173**

Refer to the exhibit.



A network administrator must block ping from user 3 to the App Server only. An inbound standard access list is applied to R1 interface G0/0 to block ping. The network administrator was notified that user 3 cannot even ping user 9 anymore.

Where must the access list be applied in the outgoing direction to resolve the issue?

- A. R2 interface G1/0
- B. R2 interface G0/0
- C. SW1 interface G1/10
- D. SW1 interface G2/21

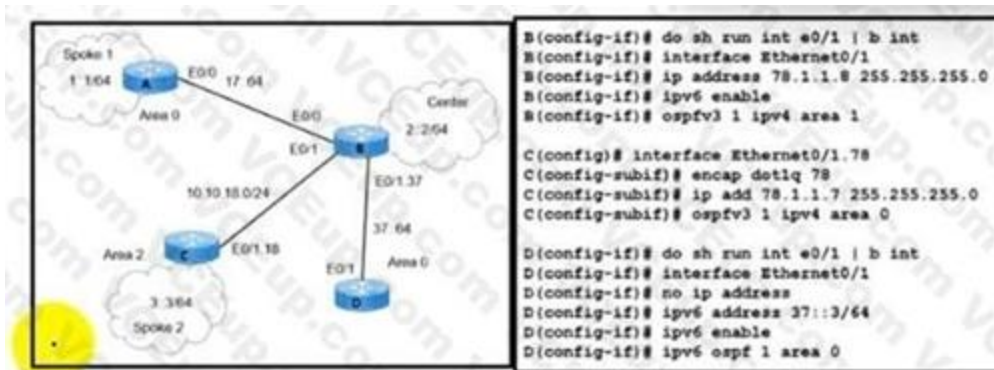
**Correct Answer: D**

**Section:**

**QUESTION 174**

Refer to the exhibit.





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?

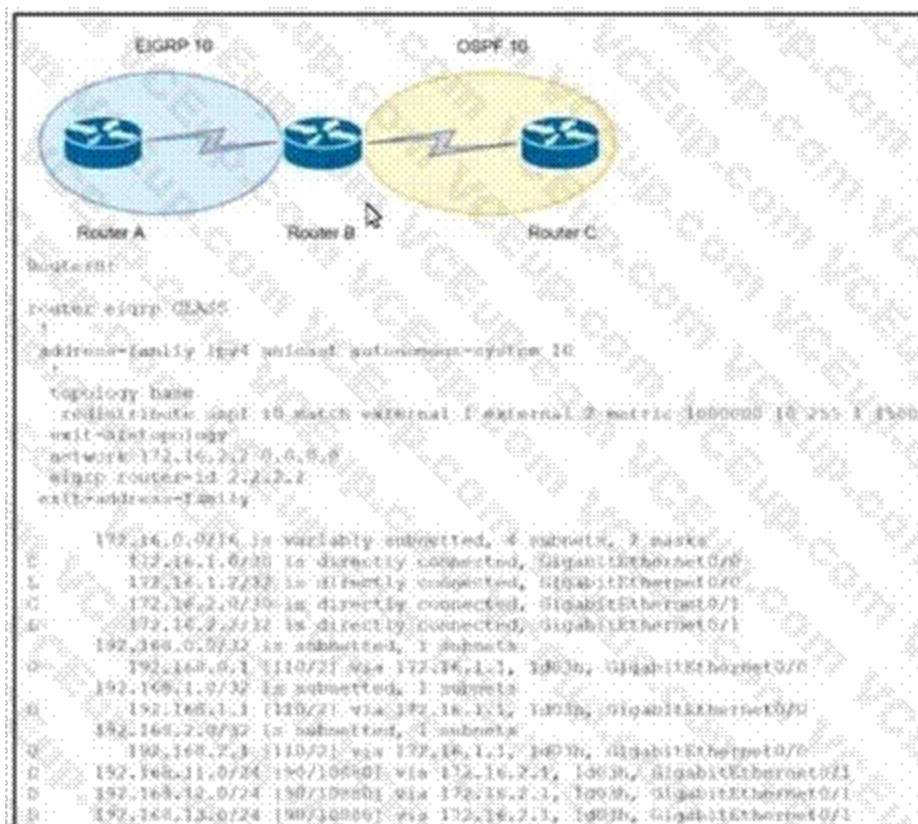
- A. Configure the Spoke 2 users IP on the router B OSPF domain
- B. Configure encapsulation dot1q 78 on the router C interface.
- C. Configure IPv6 on the routers B and C interfaces
- D. Configure OSPFv2 on the routers B and C interfaces

**Correct Answer: C**

**Section:**

**QUESTION 175**

Refer to the exhibit.



Refer to the exhibit. An engineer configured route exchange between two different companies for a migration project EIGRP routes were learned in router C but no OSPF routes were learned in router A. Which configuration allows router A to receive OSPF routes?

```
(config-router-af)#redistribute ospf 10 1000000 10 255 1 1500
(config-router-af-topology)#redistribute ospf 10 metric 1000000 10 255 1 1500
(config-router-af-topology)#redistribute connected
(config-router-af-topology)#no redistribute ospf 10 match external 1 external 2 metric 1000000 10 255 1 1500
```

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

**Correct Answer: B**

**Section:**

#### QUESTION 176

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

**Correct Answer: D**

**Section:**

#### QUESTION 177

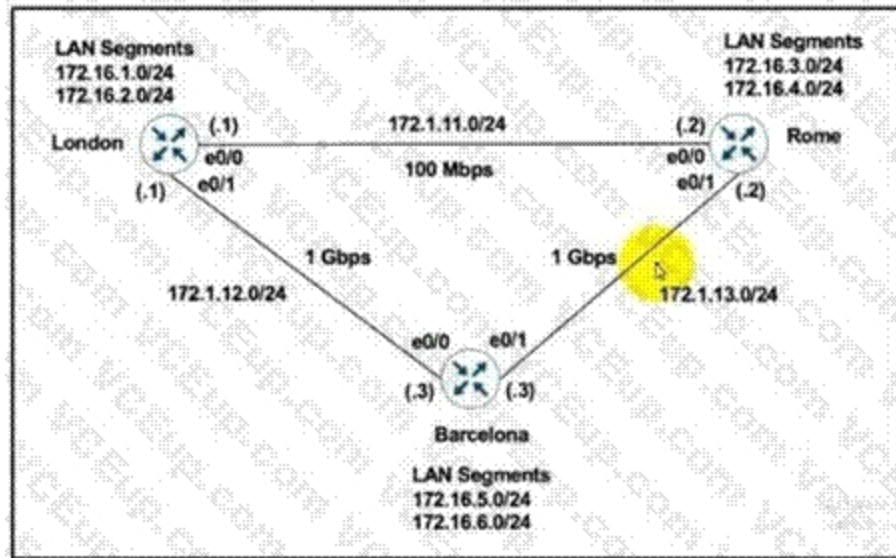


Refer to the exhibits.

```
London - "show ip route" output
Gateway of last resort is not set

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

Rome - "show run | section router" output
router eigrp 111
 network 172.1.0.0
 network 172.16.0.0
 no auto-summary
```



Refer to the exhibits.

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

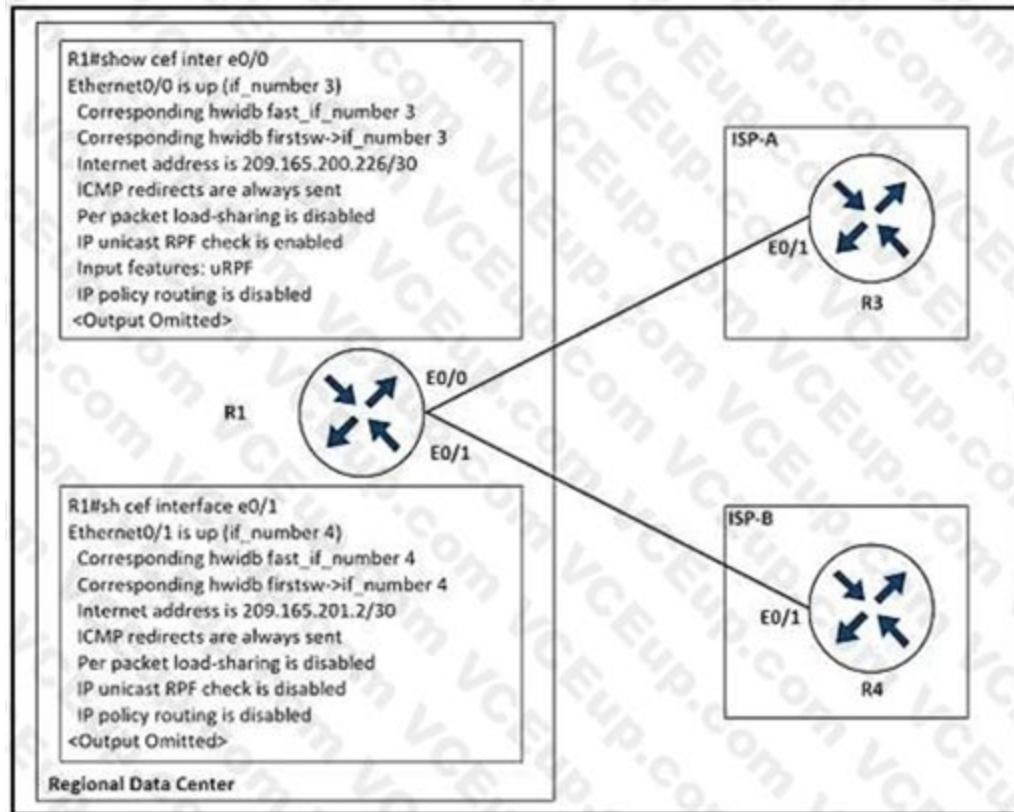
- A. Increase the bandwidth of the link between London and Barcelona
- B. Use the network statement on London to inject the 172.16.X.0/24 networks into EIGRP.
- C. Change the administrative distance of RIP to 150
- D. Use the network statement on Rome to inject the 172.16.X.0/24 networks into EIGRP

**Correct Answer: D**

**Section:**

**QUESTION 178**

Refer to the exhibit.



Refer to the exhibit. The company implemented uRPF to address an antispoofing attack. A network engineer received a call from the IT security department that the regional data center is under an IP attack. Which configuration must be implemented on R1 to resolve this issue?

- interface ethernet0/0  
ip verify unicast reverse-path
- interface ethernet0/1  
ip verify unicast reverse-path
- interface ethernet0/1  
ip unicast RPF check reachable-via any allow-default allow-self-ping
- interface ethernet0/0  
ip unicast RPF check reachable-via any allow-default allow-self-ping



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

**Correct Answer: B**

**Section:**

**QUESTION 179**

What is a function of BFD?

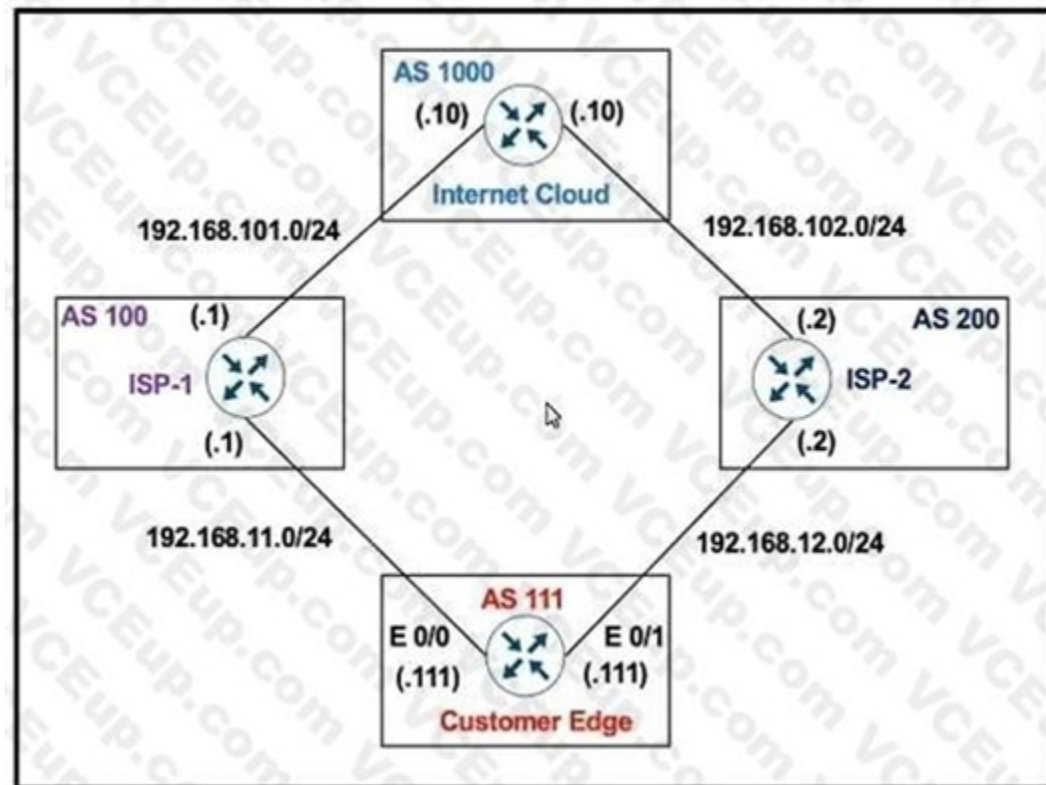
- A. peer recovery after a Layer 3 protocol adjacency failure
- B. peer recovery after a Layer 2 adjacency failure
- C. failure detection independent of routing protocols and media types
- D. failure detection dependent on routing protocols and media types

**Correct Answer: D**

Section:

**QUESTION 180**

Refer to the exhibit.



```
ISP-1
ip as-path access-list 1 permit ^111
!
router bop 100
neighbor 192.168.101.10 remote-as 1000
neighbor 192.168.11.111 remote-as 111
neighbor 192.168.11.111 filter-list 1 in
```

Refer to the exhibit. AS 111 must not be used as a transit AS, but ISP-1 is getting ISP-2 routes from AS 111. Which configuration stops Customer AS from being used as a transit path on ISP-1?

- A. ip as-path access-list 1 permit ^\$
- B. ip as-path access-list 1 permit \_111\_
- C. ip as-path access-list 1 permit."
- D. ip as-path access-list 1 permit ^111\$

**Correct Answer: A**

Section:

**QUESTION 181**

Refer to the exhibit.



Refer to the exhibit. An engineer configured user login based on authentication database on the router, but no one can log into the router. Which configuration resolves the issue?

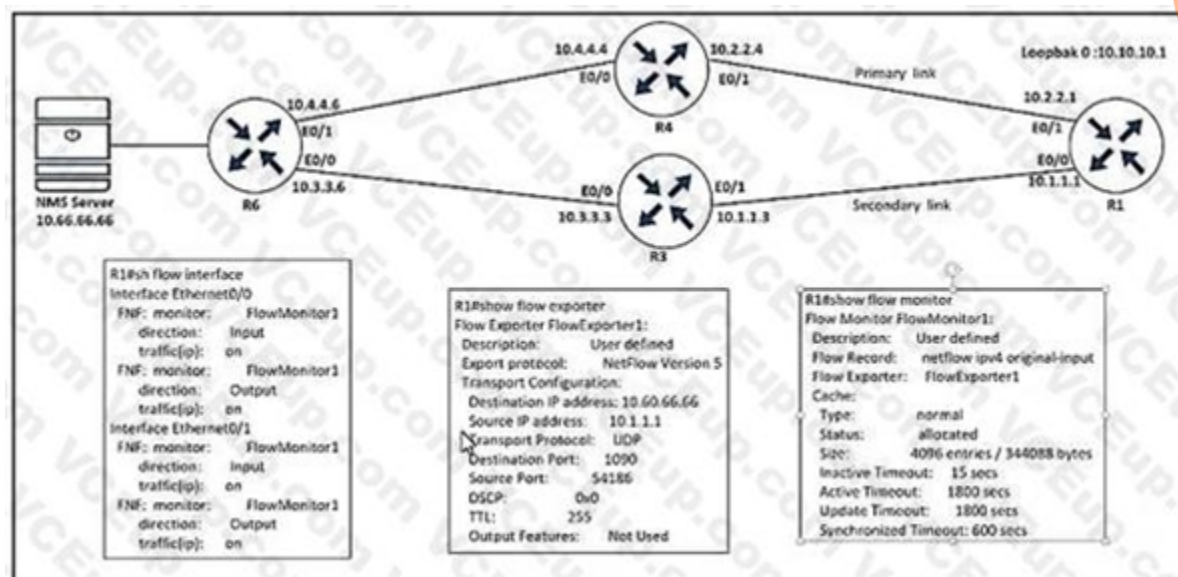
- A. aaa authentication login default enable
- B. aaa authorization network default local
- C. aaa authentication login default local
- D. aaa authorization exec default local

**Correct Answer: C**

**Section:**

**QUESTION 182**

Refer to the exhibit.



Refer to the exhibit. An engineer configured NetFlow on R1, but the flows do not reach the NMS server from R1. Which configuration resolves this Issue?

- R1(config)#flow monitor FlowMonitor1  
R1(config-flow-monitor)#destination 10.66.66.66
- R1(config)#flow exporter FlowExporter1  
R1(config-flow-exporter)#destination 10.66.66.66
- R1(config)#interface Ethernet0/0  
R1(config-if)#ip flow monitor Flowmonitor1 input  
R1(config-if)#ip flow monitor Flowmonitor1 output
- R1(config)#interface Ethernet0/1  
R1(config-if)#ip flow monitor Flowmonitor1 input  
R1(config-if)#ip flow monitor Flowmonitor1 output

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

Correct Answer: B

Section:

QUESTION 183

Refer to the exhibit.



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



Refer to the exhibit The engineer configured route redistribution in the network but soon received reports that R2 cannot access 192 168 7 0/24 and 192 168 15 0/24 subnets Which configuration resolves the issue?

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

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

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

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

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

**Correct Answer: D**

**Section:**

#### QUESTION 184

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

**Correct Answer: A**

**Section:**

#### QUESTION 185

Refer to the exhibit.



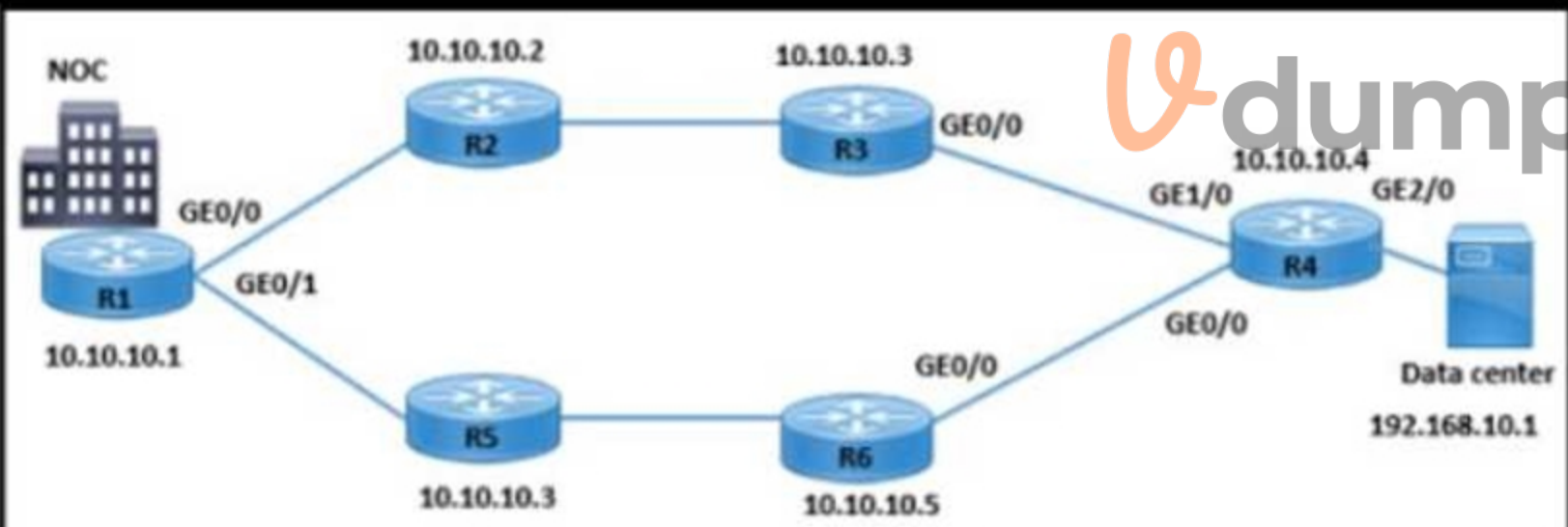


```

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

**Correct Answer: C**

**Section:**

#### QUESTION 186

Refer to the exhibit.

```
Router A
line con 0
 exec-timeout 60 0
 logout-warning 15
 logging synchronous
 login
 transport output all
 stopbits 1
```

The logo for Vdumps.com, featuring a stylized orange 'V' followed by the word 'dumps' in a grey sans-serif font.

Refer to the exhibit After a misconfiguration by a junior engineer, the console access to router A is not working Which configuration allows access to router A?

A)

```
RouterA(config)#aaa new-model
RouterA(config)#aaa authentication login my-auth-list tacacs+
```

B)

```
RouterA(config)#line console 0
RouterA(config-line)#password cisco
RouterA(config)#end
```

C)

```
RouterA(config)#line console 0
RouterA(config-line)#password cisco
RouterA(config-line)#login local
RouterA(config)#end
```

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

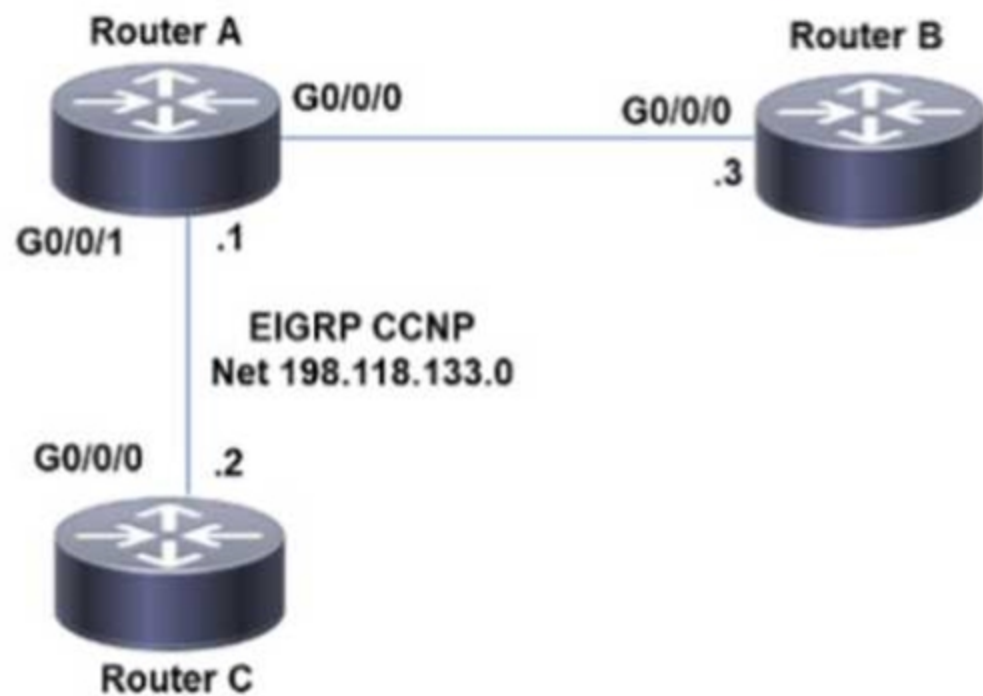
**Correct Answer: C**

**Section:**

**QUESTION 187**

Refer to the exhibit.





```

RouterA#sh ip eigrp interfaces gigabitEthernet 0/0/1
EIGRP-IPv4 Interfaces for AS(1)
Interface Xmit Queue PeerQ Mean Pacing Time Multicast Pending
EIGRP-IPv4 VR(CCNP) Address-Family Interfaces for AS(100)
Interface Peers Un/Reliable Un/Reliable SRTT Un/Reliable Flow Timer Routes
Gi0/0/1 0 0/0 0/0 0 0/0 50 0
RouterA#

```

Refer to the exhibit EIGRP adjacency between router A and router C is not working as expected Which two configurations resolve the issue? (Choose two )  
A)

```

Router C
router eigrp CCNP
address-family ipv4 unicast autonomous-system 100
topology base
exit-af-topology
network 198.18.133.0
exit-address-family

```

B)

```
Router C
router eigrp CCNP
address-family ipv4 unicast autonomous-system 100
af-interface GigabitEthernet0/0/0
hold-time 90
exit-af-interface
topology base
exit-af-topology
exit-address-family
```

C)

```
Router A
router eigrp CCNP
address-family ipv4 unicast autonomous-system 100
af-interface GigabitEthernet0/0/1
hello-interval 15
topology base
exit-af-topology
network 192.18.133.0
exit-address-family
```

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D)

```
Router A
router eigrp CCNP
address-family ipv4 unicast autonomous-system 100
topology base
exit-af-topology
network 198.18.133.0
exit-address-family
```

E)

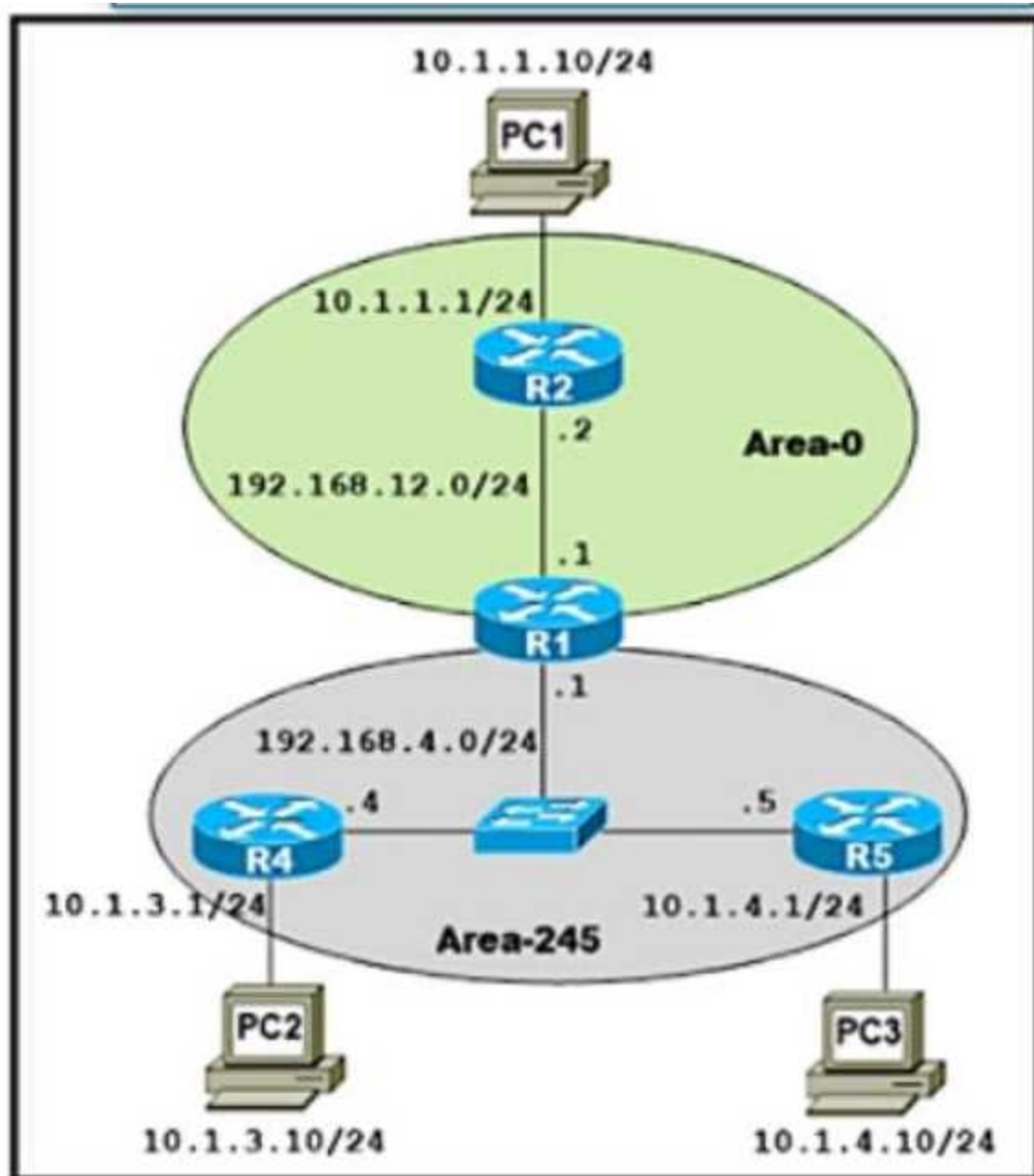
```
Router A
router eigrp CCNP
 address-family ipv4 unicast autonomous-system 10
af-interface GigabitEthernet0/0/1
 hello-interval 15
 hold-time 90
 exit-af-interface
 topology base
 exit-af-topology
 network 198.18.133.0
 exit-address-family
```

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

**Correct Answer: B, C**  
**Section:**

**QUESTION 188**  
Refer to the exhibit.





 **vdumps**

Refer to the exhibit A network administrator is troubleshooting to reduce the routing table of R4 and R5 to learn only the default route to communicate from Inter-Area and Intra-Area networks Which configuration resolves the issue?

A)

**R-1#default area 245**

**R-4#default area 245 default-cost**

**R-5#default area 245 default-cost**

**R-1#area 245 stub no-summary**

B)

R-1#area 245 stub no-summary

R-4#area 245 stub

R-5#area 245 stub

C)

R-1#area 245 stub

R-4#area 245 stub no-summar

R-5#area 245 stub no-summar

D)

R-1#default area 245 default-cost

R-4#default area 245

R-5#default area 245

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

**Correct Answer: D**

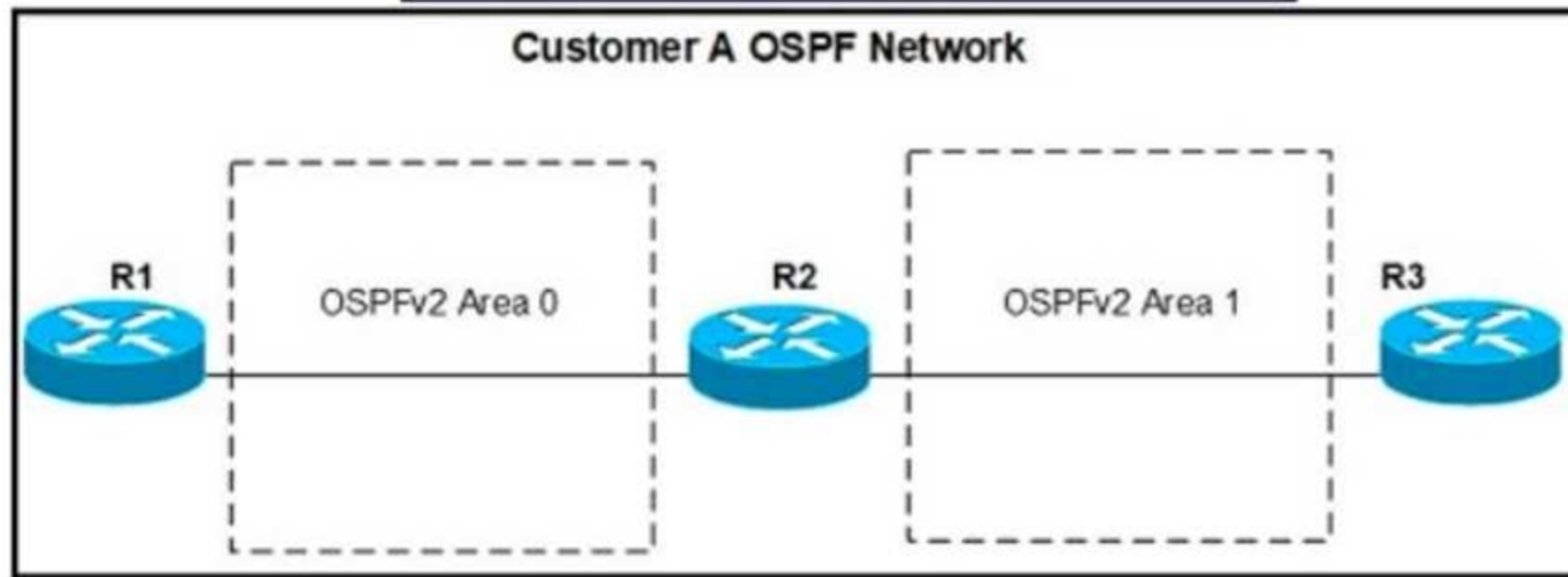
**Section:**

**QUESTION 189**

Refer to the exhibit.







Refer to the exhibit An engineer must ensure that R3 sees only type 1 and 2 LSAs in area 1. Which command must the engineer apply on R2?

- A. Area 1 stub nssa
- B. Area 1 nssa no-summary
- C. Area 1 stub no-summary
- D. Area 1 stub

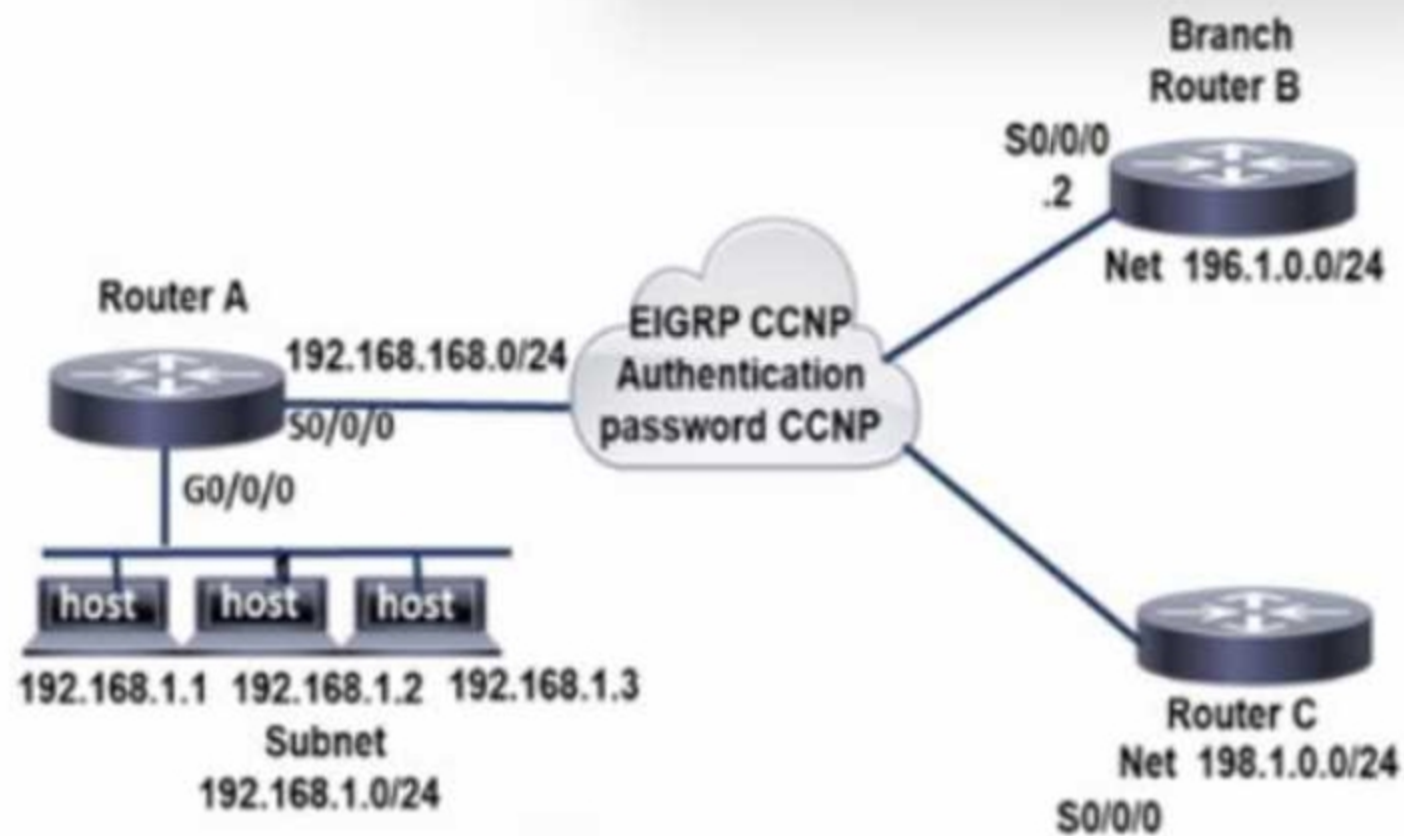
**Correct Answer: C**

**Section:**

**QUESTION 190**

Refer to the exhibit.





```
RouterA#debug eigrp packets
```

```
(UPDATE, REQUEST, QUERY, REPLY, HELLO, UNKNOWN, PROBE, ACK, STUB, SIAQUERY, SIAREPLY)
EIGRP Packet debugging is on
RouterA#
*Jan 14 16:39:24.927: EIGRP: Gi1: ignored packet from 192.168.168.2, opcode = 5 (missing
authentication)
*Jan 14 16:39:25.619: EIGRP: Sending HELLO on Gi1 - paklen 60
*Jan 14 16:39:25.619: AS 100, Flags 0x0: (NULL), Seq 0/0 interfaceQ 0/0 iidbQ un/rely 0/0
RouterA#
```

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)

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```
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

**Correct Answer: C**

**Section:**

**QUESTION 191**

An engineer configures PBR on R5 and wants to create a policy that matches traffic destined toward 10.10.10.0/24 and forwards it toward 10.1.1.1. This traffic must also have its IP precedence set to 5.

All other traffic should be forwarded toward 10.1.1.2 and have its IP precedence set to 0. Which configuration meets the requirements?

```
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

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

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

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
```



A. Option A

B. Option B

C. Option C

D. Option D

**Correct Answer: A**

**Section:**

**QUESTION 192**

Refer to the exhibit.

```
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.

**Correct Answer: C**

**Section:**

**QUESTION 193**

Refer to the exhibit.





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

**Correct Answer: D**

**Section:**

**QUESTION 194**

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.
```

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



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

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

**Correct Answer: B**

**Section:**

**QUESTION 195**

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 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?

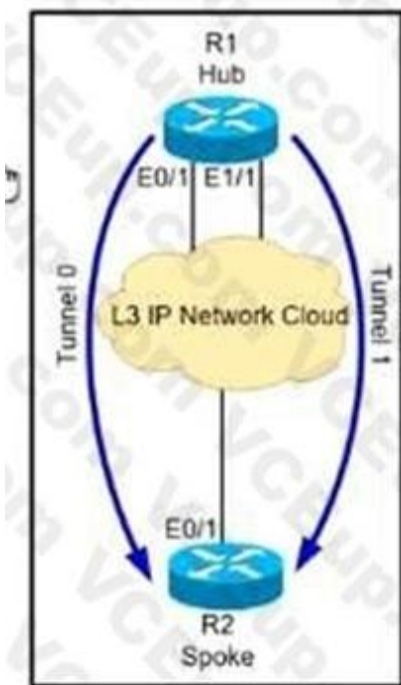
- A. Reference the track object 1 in both static default routes
- B. Remove the references to the interface names from both static default routes
- C. Configure the default route through ISP1 with a higher administrative distance than 2.
- D. Add a static route to the 8.8.8.8/32 destination through the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

**Correct Answer: A**

**Section:**

**QUESTION 196**

Refer to the exhibit.



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

**Correct Answer: C**

**Section:**



### QUESTION 197

Refer to the exhibit.

The exhibit shows a network diagram and CLI output. The diagram illustrates three routers: PE1 (IP 10.255.255.1/32) connected to PE2 (IP 10.255.255.2/32) via a link with IP 10.0.12.0/24. PE2 is connected to PE3 (IP 10.255.255.3/32) via a link with IP 10.0.23.0/24. Below the diagram is the CLI output for PE1, showing BGP configuration and debug logs. The BGP configuration includes: `router bgp 65000`, `bgp log-neighbor-changes`, `neighbor 10.255.255.3 remote-as 65000`, and `neighbor 10.255.255.3 update-source Loopback0`. The debug logs show a successful TCP SYN exchange followed by an ICMP unreachable message from PE2 to PE1, and the subsequent closure of the TCP connection.

```
10.255.255.1/32 10.255.255.3/32
PE1 .1 ----- .2 PE2 ----- .3 PE3
 10.0.12.0/24 10.0.23.0/24

PE1# show run | sec router bgp
router bgp 65000
 bgp log-neighbor-changes
 neighbor 10.255.255.3 remote-as 65000
 neighbor 10.255.255.3 update-source Loopback0

1/1/1 ms

PE1# debug ip tcp transactions
PE1# debug ip icmp

[...snip...]
*Feb 22 14:04:12.374: TCP: sending SYN, seq 379810712, ack 0
*Feb 22 14:04:12.374: TCP0: Connection to 10.255.255.3:179,
advertising MSS 1460
*Feb 22 14:04:12.374: TCP0: state was CLOSED -> SYNSENT [21381 -
> 10.255.255.3(179)]
*Feb 22 14:04:12.375: ICMP: dst (10.255.255.1) administratively
prohibited unreachable rcv from 10.0.12.2
*Feb 22 14:04:12.375: TCP0: ICMP destination unreachable
received
*Feb 22 14:04:12.375: Released port 21381 in Transport Port
Agent for TCP IP type 1 delay 240000
*Feb 22 14:04:12.375: TCP0: state was SYNSENT -> CLOSED [21381 -
> 10.255.255.3(179)]
*Feb 22 14:04:12.375: TCB 0xE35A92B6 destroyed
```



Refer to the exhibit. The administrator is troubleshooting a BGP peering between PE1 and PE3 that is unable to establish Which action resolves the issue?

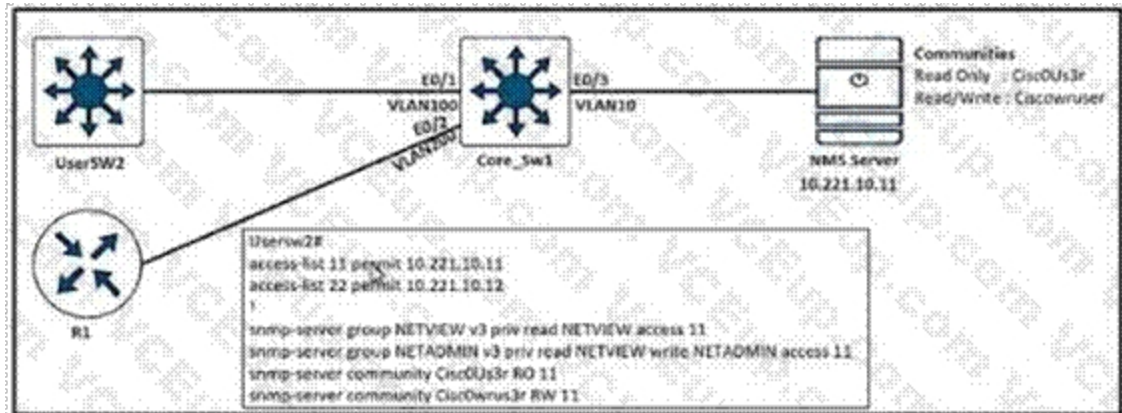
- A. P2 must have a route to PE3 to establish a BGP session to PE1
- B. Disable sending ICMP unreachables on P2 to allow PE1 to establish a session with PE3
- C. Ensure that the PE3 loopback address is used as a source for BGP peering to PE1
- D. Remove the traffic filtering rules on P2 blocking the BGP communication between PE1 and PE3

**Correct Answer: C**

**Section:**

### QUESTION 198

Refer to the exhibit.



Refer to the exhibit. An engineer configured SNMP Communities on UserSW2 switch, but the SNMP server cannot upload modified configurations to the switch. Which configuration resolves this issue?

- A. snmp-server community Ciscowruser RW 11
- B. snmp-server group NETADMIN v3 priv read NETVIEW write NETADMIN access 22
- C. snmp-server community CiscOU3r RW 11
- D. snmp-server group NETVIEW v2c priv read NETVIEW access 11

**Correct Answer: A**

**Section:**

**QUESTION 199**

Refer to the exhibit.

```

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

**Correct Answer: E**

**Section:**

**QUESTION 200**

Refer to the exhibit.



```

crypto isakmp policy 1
 authentication pre-share
 crypto isakmp key cisco47 address 0.0.0.0
!
crypto ipsec transform-set trans2 esp-des esp-md5-hmac
 mode transport
!
crypto ipsec profile vpnprof
 set transform-set trans2
!
interface Tunnel0
 bandwidth 1000
 ip address 10.0.0.1 255.255.255.0
 ip mtu 1400
 ip nhrp authentication dontell
 ip nhrp map multicast dynamic
 ip nhrp network-id 99
 ip nhrp holdtime 300
 no ip split-horizon eigrp 1
 ip tcp adjust-mss 1360
 delay 1000
 tunnel source GigabitEthernet0/0/0
 tunnel mode gre multipoint
 tunnel key 100000
 tunnel protection ipsec profile vpnprof
!
interface FastEthernet0/0/0
 ip address 172.17.0.1 255.255.255.0
!
interface FastEthernet0/0/1
 ip address 192.168.0.1 255.255.255.0
!
router eigrp 1
 network 10.0.0.0 0.0.0.255
 network 192.168.0.0 0.0.0.255
!

```

A network administrator must configure DMVPN tunnels between the hub and spoke with dynamic spoke-to-spoke tunnel capabilities using EIGRP. Which tunnel interface command must the network administrator configure to establish an EIGRP peer?

- A. no ip next-hop-self eigrp 1
- B. ip next-hop-self eigrp 1
- C. no ip nhrp next-hop-self
- D. ip nhrp next-hop-self

**Correct Answer: C**

**Section:**

#### QUESTION 201

Refer to the exhibit.

```

R1#show ip rip database
10.0.0/8 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.

**Correct Answer: A**

**Section:**

#### QUESTION 202



Refer to the exhibit.

```
100.0.0/32 is subnetted, 3 subnets
C 100.1.1.1 is directly connected, Loopback0
D 100.2.2.2 [90/156160] via 10.1.1.2, 00:00:46, FastEthernet0/0
D 100.3.3.3 [90/158720] via 10.1.1.14, 00:00:44, FastEthernet1/0
 [90/158720] via 10.1.1.2, 00:00:44, FastEthernet0/0
10.0.0/8 is variably subnetted, 13 subnets, 4 masks
D 10.1.1.8/30 [90/30720] via 10.1.1.14, 00:00:44, FastEthernet1/0
C 10.1.1.12/30 is directly connected, FastEthernet1/0
C 10.1.1.0/30 is directly connected, FastEthernet0/0
D 10.1.1.4/30 [90/30720] via 10.1.1.2, 00:00:45, FastEthernet0/0
C 10.100.1.40/32 is directly connected, Loopback40
D EX 10.1.1.80/29 [170/33280] via 10.1.1.14, 00:00:45, FastEthernet1/0
 [170/33280] via 10.1.1.2, 00:00:45, FastEthernet0/0
C 10.100.1.50/32 is directly connected, Loopback50
C 10.100.1.10/32 is directly connected, Loopback10
S 10.100.1.0/24 is a summary, 00:00:48, Null0
C 10.100.1.30/32 is directly connected, Loopback30
C 10.100.1.20/32 is directly connected, Loopback20
C 10.200.1.0/24 is directly connected, FastEthernet0/1
D EX 10.247.10.0/30 [170/2174976] via 10.1.1.14, 00:00:46, FastEthernet1/0
 [170/2174976] via 10.1.1.2, 00:00:46, FastEthernet0/0
```

Refer to the exhibit. R1 must advertise all loopback interfaces IP addresses to neighbors, but EIGRP neighbors receive a summary route. Which action resolves the issue?

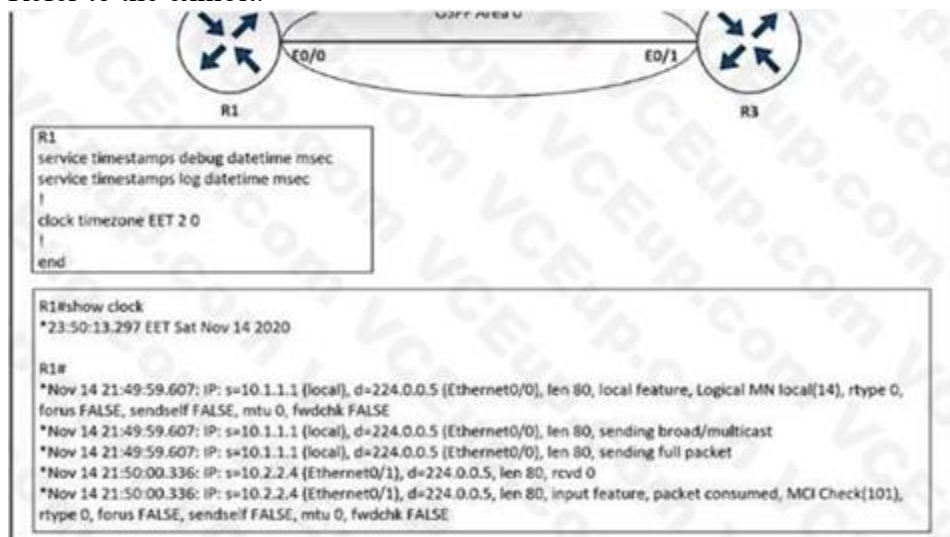
- A. Redistribute connected routes into EIGRP Enable
- B. EIGRP on loopback Interfaces.
- C. Disable auto summarization on R1.
- D. Remove the 10.100.1.0/24 static route.

**Correct Answer: D**

**Section:**

### QUESTION 203

Refer to the exhibit.



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

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

**Correct Answer: B**

**Section:**



### QUESTION 204

Refer to the exhibit.



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

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

**Correct Answer: B**

**Section:**

### QUESTION 205

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

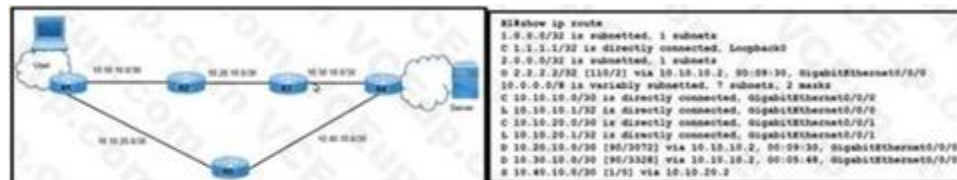
- A. Convert the incoming MPLS packet to an untagged packet and then do a FIB lookup
- B. Convert the incoming MPLS packet to an untagged packet and then do a RIB lookup.
- C. Convert the untagged packet to a labeled packet and forward it to the next router
- D. Convert the incoming MPLS packet to an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

**Correct Answer: C**

**Section:**

### QUESTION 206

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
```

**Correct Answer: A**

**Section:**

#### QUESTION 207

Refer to the exhibit.

```
R1#show ip route ospf
10.0.0.0/24 is subnetted, 7 subnets
O E1 10.4.9.0 [110/200] via 10.4.17.6, 00:06:43,
FastEthernet0/0
O IA 10.4.27.0 [110/2] via 10.4.15.5, 00:06:44,
FastEthernet0/1
O E1 10.4.49.0 [110/200] via 10.4.17.6, 00:06:43,
FastEthernet0/0
O E1 10.4.59.0 [110/200] via 10.4.17.6, 00:06:43,
FastEthernet0/0
```

Refer to the exhibit. An engineer configured two ASBRs, 10.4.17.6 and 10.4.15.5, in an OSPF network to redistribute identical routes from BGP. However, only prefixes from 10.4.17.6 are installed into the routing table on R1. Which action must the engineer take to achieve load sharing for the BGP-originated prefixes?

- A. The ASBRs are advertising the redistributed prefixes with the iBGP metric and must be modified to Type 1 on ASBR 10.4.17.6.
- B. The ASBRs are advertising the redistributed prefixes with a different admin distance and must be changed to 110 on ASBR 10.4.15.5.
- C. The admin distance of the prefixes must be adjusted to 20 on ASBR 10.4.15.5 to advertise prefixes to R1 identically from both ASBRs.
- D. The ASBRs are advertising the redistributed prefixes as Type 1 and must be modified to Type 2.

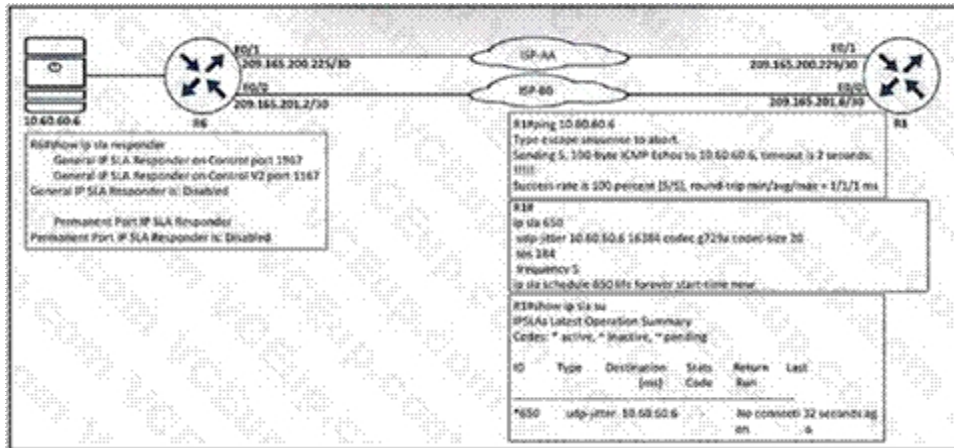
**Correct Answer: D**

**Section:**

#### QUESTION 208

Refer to the exhibit.





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

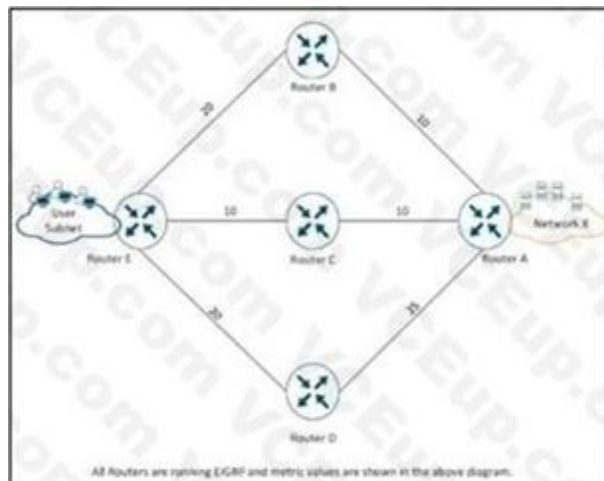
- A. R6(config)#ip sla responder
- B. R6(config)#ip sla responder udp-echo ipaddress 10.60.60.6 po 5000
- C. R6(config)#ip sla 650 R6(config-ip-sla)ff udp-jitter 10.60.60.6
- D. R6(config)#ip sla schedule 10 life forever start-time now

**Correct Answer: A**

**Section:**

**QUESTION 209**

Refer to the exhibit.



Refer to the exhibit. The IT manager received reports from users about slow application through network x. which action resolves the issue?

- A. Use the variance 2 command to enable load balancing.
- B. Increase the bandwidth from the service provider.
- C. Move the servers into the users subnet.
- D. Upgrade the IOS on router E.

**Correct Answer: A**

**Section:**

**QUESTION 210**

Refer to the exhibit.



```
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

**Correct Answer: D**

**Section:**

**QUESTION 211**

Refer to the exhibit.



```
router ospfv3 1
router-id 10.1.1.1
address-family ipv4 unicast
passive-interface Loopback0
exit-address-family
address-family ipv6 unicast
passive-interface Loopback0
exit-address-family
interface Loopback0
ip address 10.1.1.1 255.255.255.255
ipv6 address 2001:DB8::1/64
ospfv3 10 ipv4 area 10
ospfv3 10 ipv6 area 0
interface GigabitEthernet2
ip address 10.10.10.1 255.255.255.0
ipv6 enable
ospfv3 10 ipv4 area 10
ospfv3 10 ipv6 area 0
```

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. Replace OSPF process 10 on the interfaces with OSPF process 1 and configure an additional router IO with IPv6 address
- B. Replace OSPF process 10 on the interfaces with OSPF process 1. and remove process 10 from the global configuration
- C. Replace OSPF process 10 on the interfaces with OSPF process 1 for the IPv6 address and remove process 10 from the global configuration
- D. Replace OSPF process 10 on the interfaces with OSPF process 1 for the IPv4 address and remove process 10 from the global configuration

**Correct Answer: D**

**Section:**

### QUESTION 212

How is a preshared key "Test1" for all the remote VPN routers configured in a DMVPN using GRE over IPsec set up?

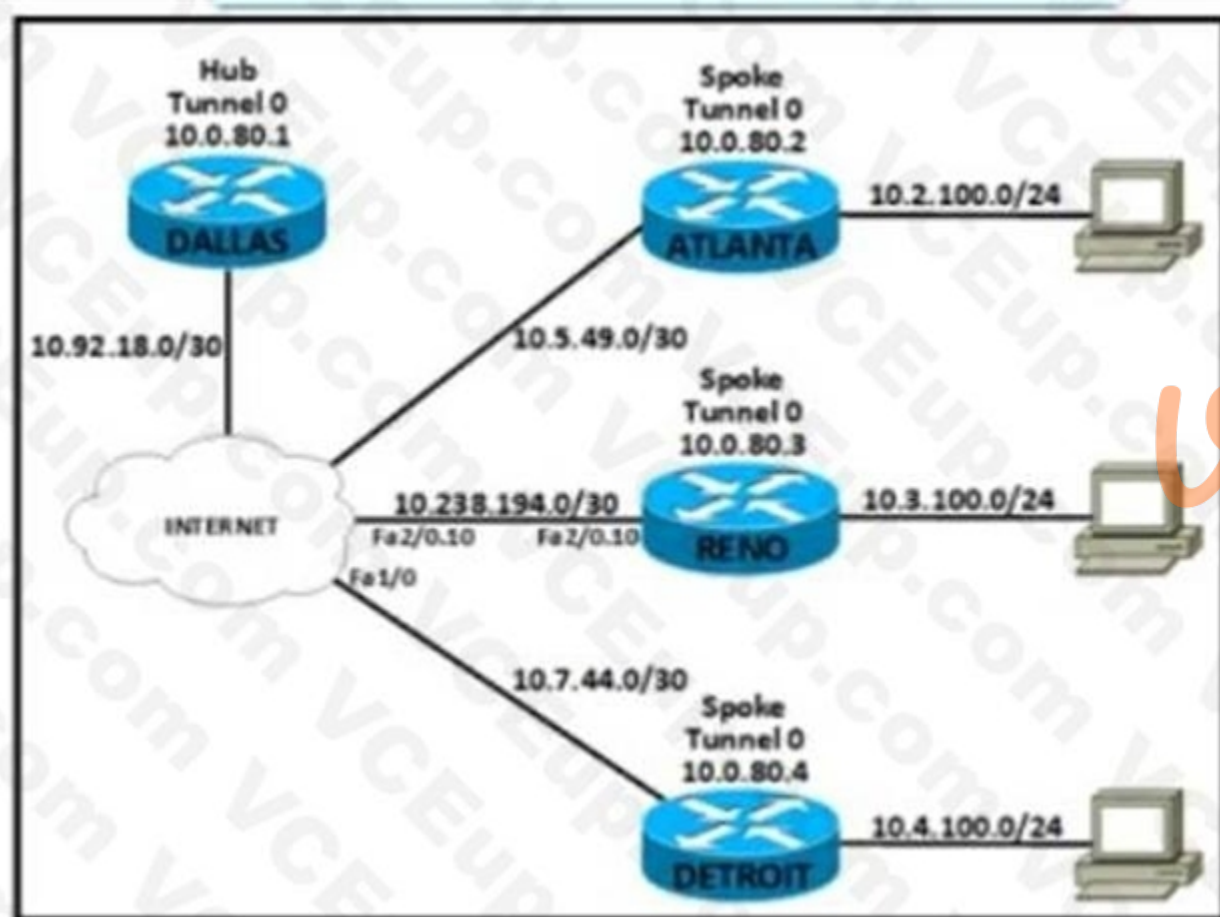
- A. authentication pre-share Test address 0.0.0.0 0.0.0.0
- B. set pre-share Test address 0.0.0.0 0.0.0.0
- C. crypto Ipsec key Test address 0.0.0.0 0.0.0.0
- D. crypto isakmp key Test address 0.0.0.0 0.0.0.0

**Correct Answer: D**

**Section:**

### QUESTION 213

Refer to the exhibit.



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
```

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

**Correct Answer: C**  
**Section:**

**QUESTION 214**

Which control plane process allows the MPLS forwarding state to recover when a secondary RP takes over from a failed primary RP?

- A. MP-BGP uses control plane services for label prefix bindings in the MPLS forwarding table
- B. LSP uses NSF to recover from disruption \*i control plane service
- C. FEC uses a control plane service to distribute information between primary and secondary processors
- D. LDP uses SSO to recover from disruption in control plane service

**Correct Answer: C**  
**Section:**

**QUESTION 215**

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

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



Correct Answer: D

Section:

QUESTION 216

Refer to the exhibit.



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

```

Correct Answer: C  
Section:

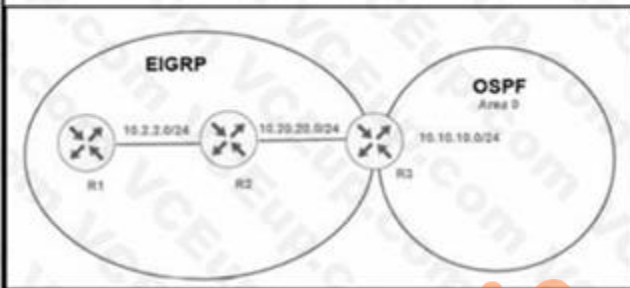
QUESTION 217  
Refer to the exhibit.

```

R2#show ip eigrp topology 10.10.10.0 255.255.255.0
IP-EIGRP (AS 1): Topology entry for 10.10.10.0/24
 State is Passive, Query origin flag is 1, 1 Successor(s), FD
 is 256005120
 Routing Descriptor Blocks:
 10.20.20.3 (FastEthernet0/1), from 10.20.20.3, Send flag is
 0x0
 Composite metric is (256005120/256002560), Route is
 External
 Vector metric:
 Minimum bandwidth is 10 Kbit
 Total delay is 200 microseconds
 Reliability is 10/255
 Load is 10/255
 Minimum MTU is 10
 Hop count is 1
 External data:
 Originating router is 10.1.1.1
 AS number of route is 1
 External protocol is OSPF, external metric is 0
 Administrator tag is 0 (0x00000000)

R1#sh run | s eigrp
router eigrp 1
router-id 10.1.1.1
network 10.2.2.0 0.0.0.255
no auto-summary

```



**Vdumps**

Refer to the exhibit. An engineer configured router R3 to redistribute the prefix 10.10.10.0/24 from OSPF into EIGRP. R1 has no connectivity to the prefix. Which action enables receipt of prefixes on R1?

- A. R3 is advertising the 10.20.20.0/24 prefix with a TTL of 1, R3 must set the TTL to 2 for this prefix.
- B. R1 does not have a neighbor relationship with R2. The EIGRP process should be cleared on R1.
- C. Duplicate router IDs on R1 and R3, R1 should modify its router ID.
- D. R1 is not receiving the next-hop IP address of R3. R2 must enable the network 10.20.20.0/24 within EIGRP.

Correct Answer: B  
Section:

QUESTION 218  
Refer to the exhibit.

```
Configuration
flow exporter Flow-to-collector
 destination 192.168.100.17 vrf Mgmt-intf
 transport udp 2601
 export-protocol netflow-v5
!
flow monitor My-netflow
 exporter Flow-to-collector
 record netflow ipv4 original-input
!
! and the management-interface is configured as follows:
interface GigabitEthernet0
 description Management-Interface
 vrf forwarding Mgmt-intf
 ip address 192.168.100.50 255.255.255.0
 negotiation auto

router#sh flow exporter statis
Flow Exporter Flow-to-collector:
 Packet send statistics (last cleared 1w4d ago):
 Successfully sent: 0 (0 bytes)
 Reason not given: 8696868 (11473678976 bytes)
 Client send statistics:
 Client: Flow Monitor OeKB-netflow
 Records added: 256783312
 - failed to send: 256783312
 Bytes added: 2783766384
 - failed to send: 2783766384
router#
```

Refer to the exhibit. A network administrator configured NetFlow data, but the data is not visible at the NetFlow collector. Which configuration allows the router to send the records?

- A. Configure the management interface in the global routing table to send the records.
- B. Configure a different interface to send the records.
- C. Configure the NetFlow collector to listen at export-protocol netflow-v5.
- D. Rectify NetFlow collector reachability from the management interface.



**Correct Answer: B**

**Section:**

**QUESTION 219**

A network administrator opens a telnet connection to the router and gets the message:

```
R1#telnet 10.1.1.2
```

```
Trying 10.1.1.2 Open
```

```
(Connection to 10.1.1.2 closed by foreign host)
```

Router R2 is configured with enable secret and password commands. Which action resolves the issue?

- A. Configure the logging synchronous command on line vty.
- B. Configure the exec command on line vty.
- C. Configure the login local command on line vty
- D. Configure the enable password command on line vty.

**Correct Answer: C**

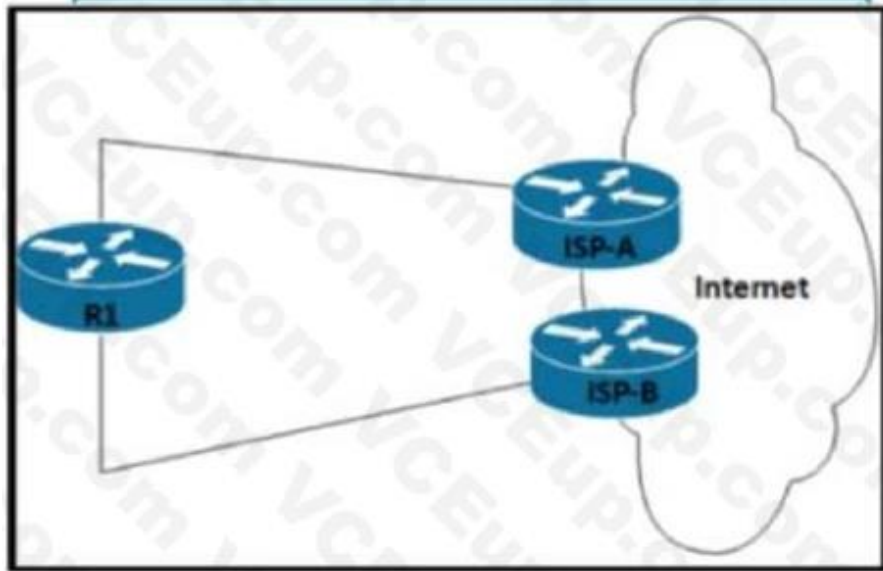
**Section:**

**QUESTION 220**



Refer to the exhibit.





 **vdumps**

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

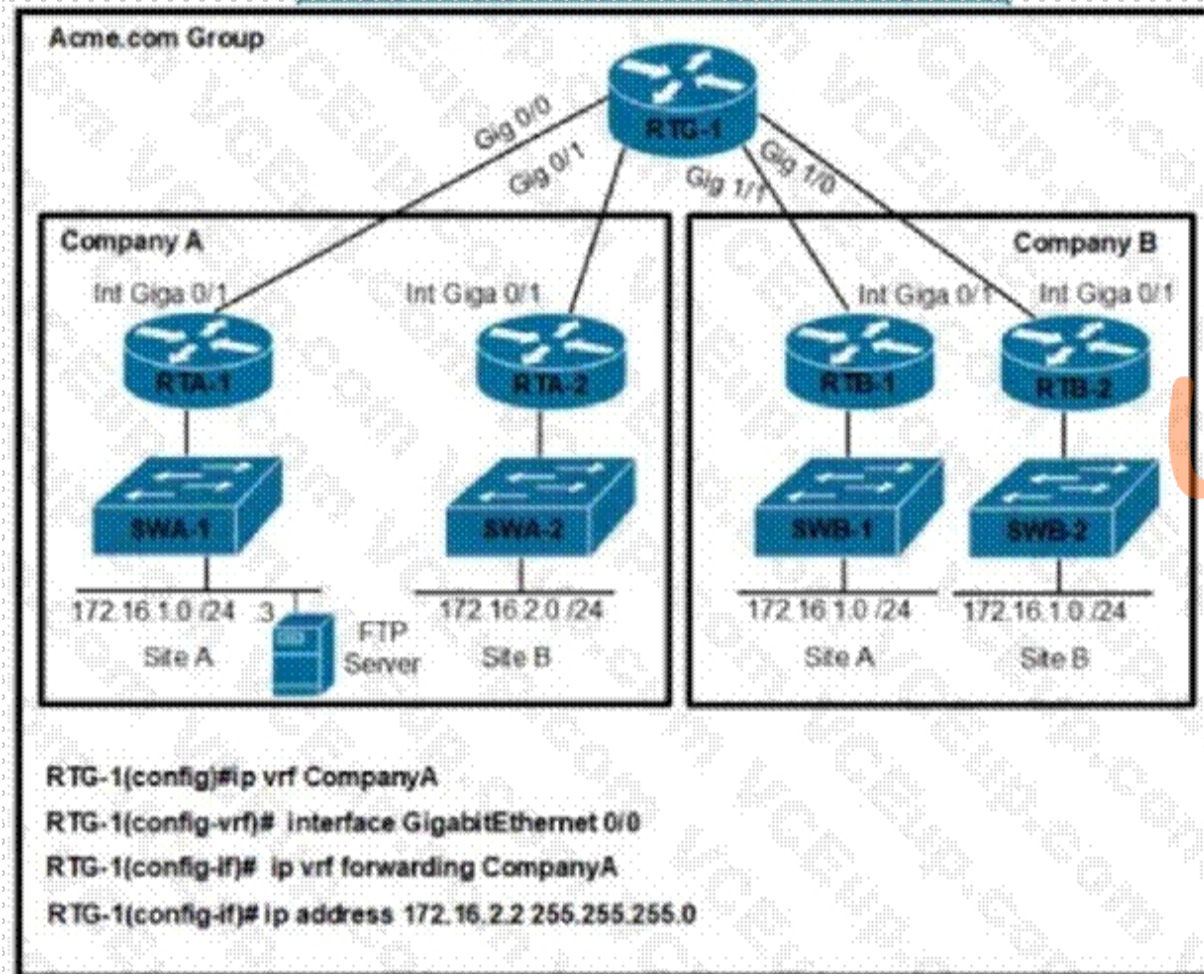
- A. Configure OSPF between R1, ISP-A, and ISP-B for dynamic failover if any ISP link to R1 fails
- B. Configure two static routes on R1, one pointing to ISP-A and another pointing to ISP-B with 222 admin distance
- C. Change the bandwidth of the interface on R1 so that interface to ISP-A has a higher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

**Correct Answer: D**

**Section:**

#### QUESTION 221

Refer to the exhibit.



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

**Correct Answer: D**  
**Section:**

**QUESTION 222**

A company is redesigning WAN infrastructure so that all branch sites must communicate via the head office and the head office can directly communicate with each site independently. The network engineer must configure the head office router by considering zero-touch technology when adding new sites in the same WAN infrastructure. Which configuration must be applied to the head office router to meet this requirement?

- Interface Tunnel0  
tunnel mode ip  
ip nhrp map multicast dynamic
- Interface Tunnel0  
tunnel mode dvmrp  
ip nhrp redirect
- Interface Tunnel0  
tunnel mode ip  
ip nhrp redirect
- Interface Tunnel0  
tunnel mode gre multipoint  
ip nhrp map multicast dynamic

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

**Correct Answer: D**

**Section:**

**QUESTION 223**

Which protocol must be secured with MD-5 authentication across the MPLS cloud to prevent hackers from introducing bogus routers?

- A. MP-BGP
- B. LSP
- C. RSVP
- D. LDP

**Correct Answer: A**

**Section:**

**QUESTION 224**

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

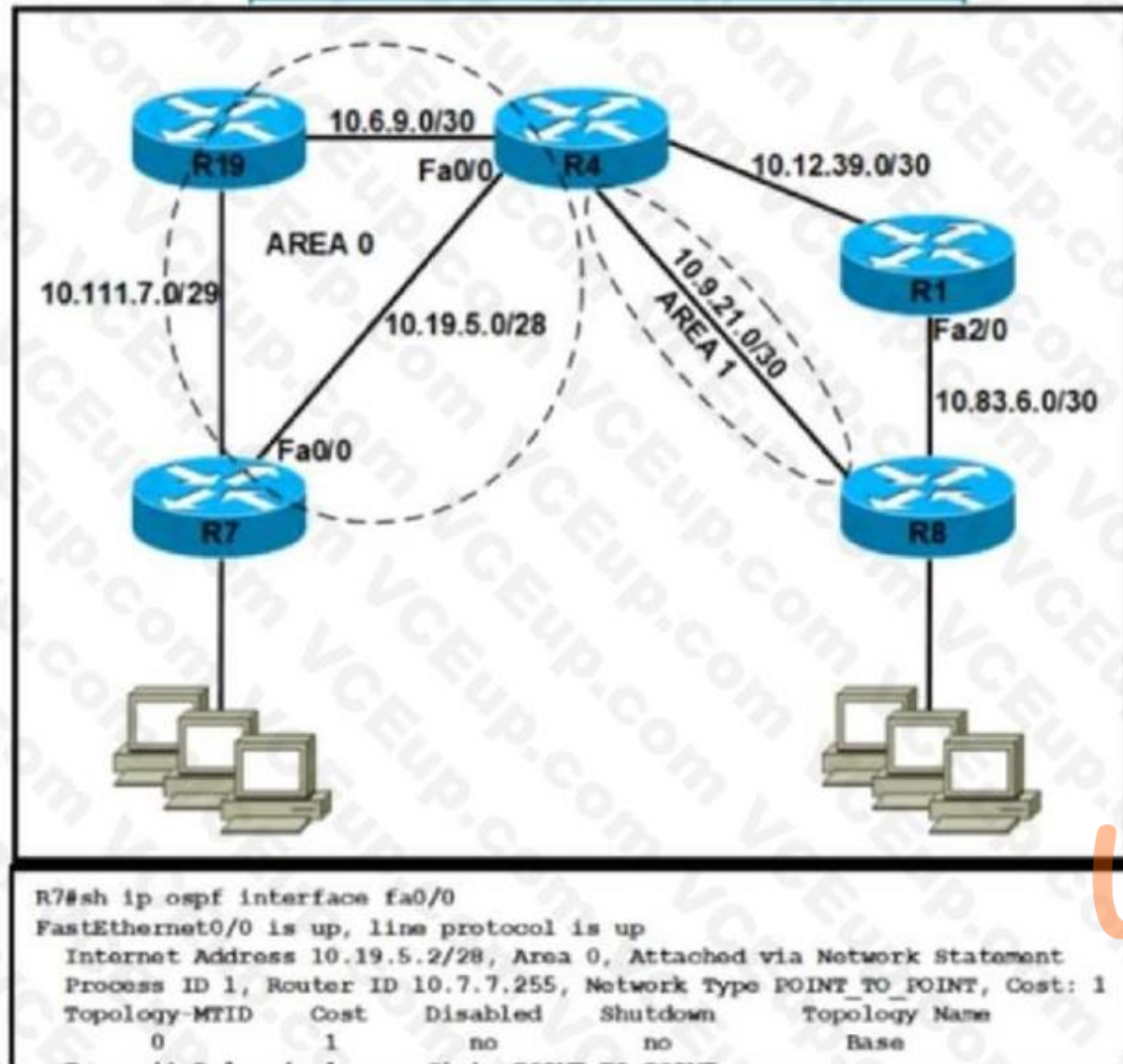
- A. label swap
- B. explicit-null
- C. label imposition
- D. PHP

**Correct Answer: D**

**Section:**

**QUESTION 225**

Refer to the exhibit.



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

**Correct Answer: C**

**Section:**

**QUESTION 226**

Refer to the exhibit.



```

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?

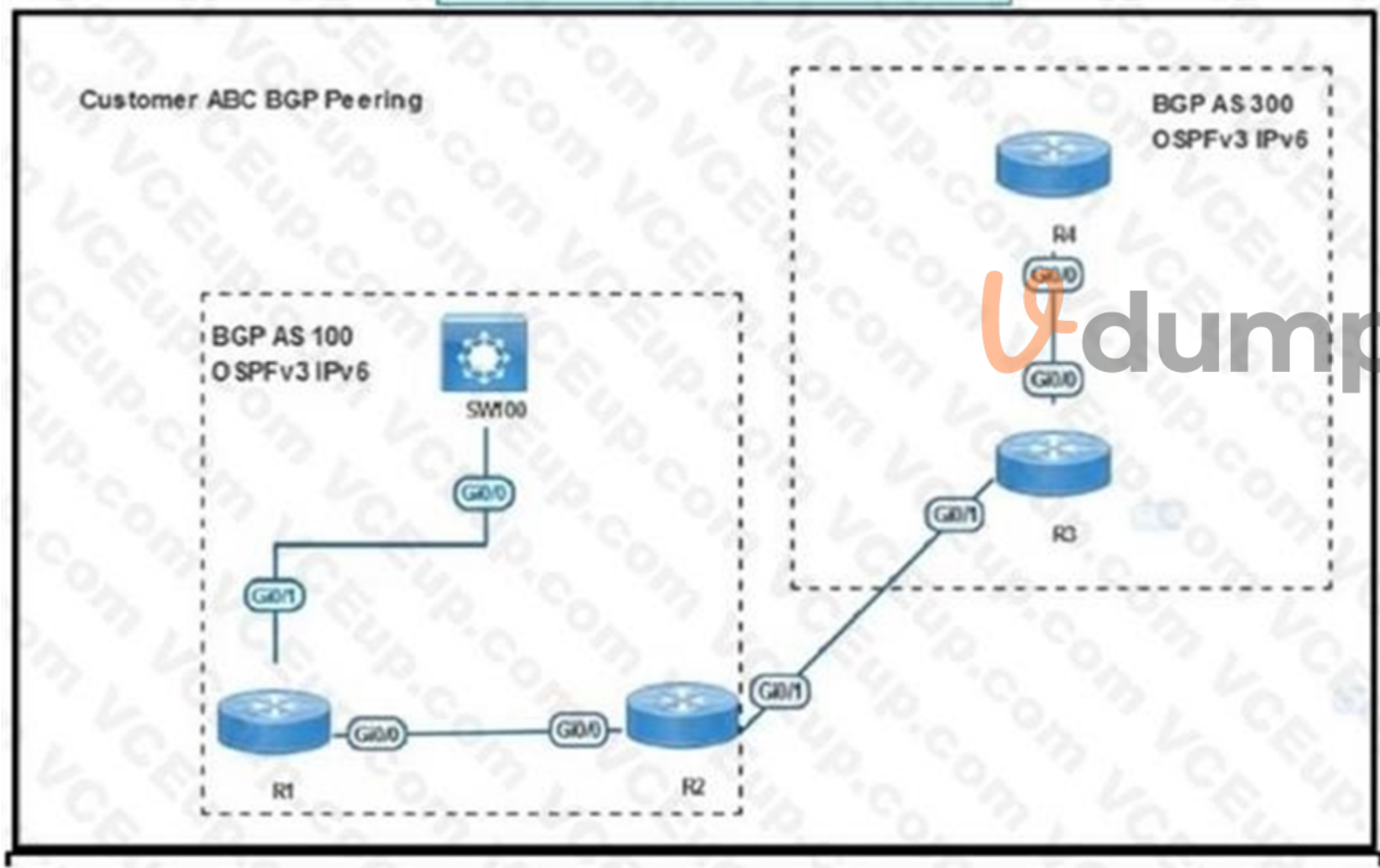
- A. R1 is a route reflector client of a RR with a router ID of 1.1.1.1. and the originator of the prefix has a router ID of 3.3.3.3. Both routers belong to different ASs. The prefix is not advertised to any peer and must be advertised using the network statement on R3.
- B. R1 is a route reflector with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

**Correct Answer: D**

**Section:**

**QUESTION 227**

Refer to the exhibit.





```

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

**Correct Answer: A**  
**Section:**

### QUESTION 228

Refer to the exhibit.

```
*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, iidb-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?

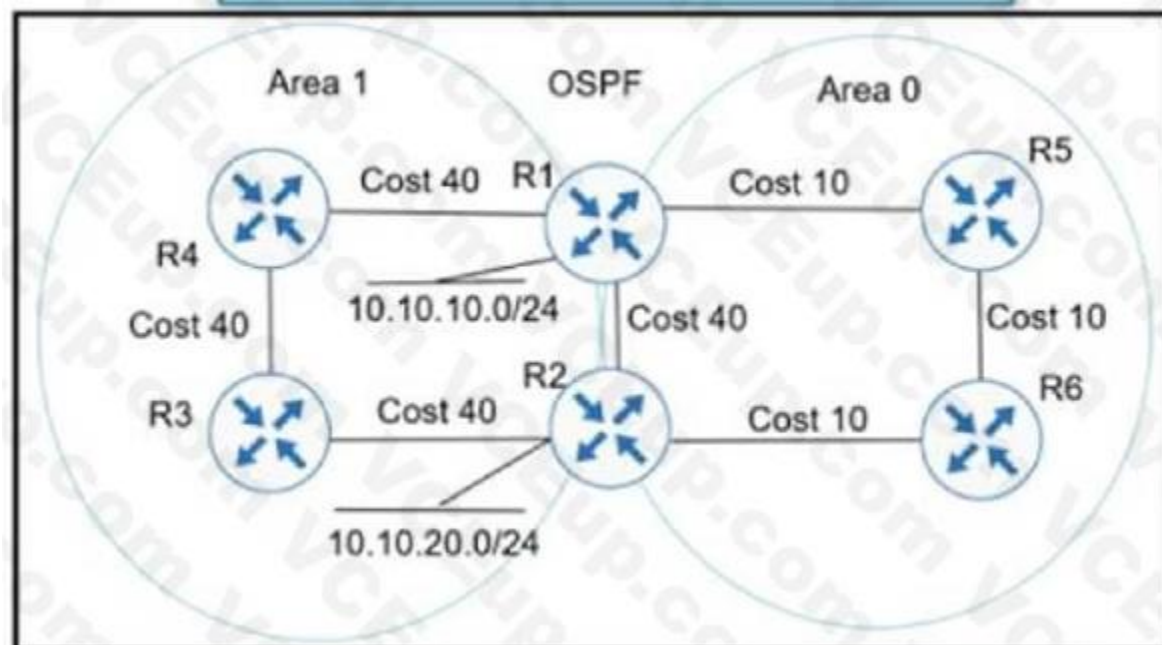
- A. connected 10.1.2.192 command on spoke router
- B. network 10.1.2.192 command on spoke router
- C. eigrp-peer 10.1.2.192 command on the hub router
- D. neighbor 10.1.2.192 command on hub router

**Correct Answer: D**

**Section:**

### QUESTION 229

Refer to the exhibit.



Refer to the exhibit Which action ensures that 10 10 10 0/24 reaches 10 10 20 0/24 through the direct link between R1 and R2?

- A. Configure R1 and R2 LAN links as nonpassive.
- B. Configure R1 and R2 links under area 1
- C. Configure OSPF link cost to 1 between R1 and R2
- D. Configure OSPF path cost to 3 between R1 and R2

**Correct Answer: B**

**Section:**

### QUESTION 230

Refer to the exhibit.

```
March 10 19:28:53.254 GMT: %SNMP-3-AUTHFAIL: Authentication failure for SNMP request from host 10.1.1.1

snmp-server community public RO 15
snmp-server community private RW 16
!
logging snmp-authfail
!
access-list 15 permit 10.1.1.1
access-list 16 permit 10.1.1.2
```

Refer to the exhibit Which action resolves the issue?

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

**Correct Answer: D**

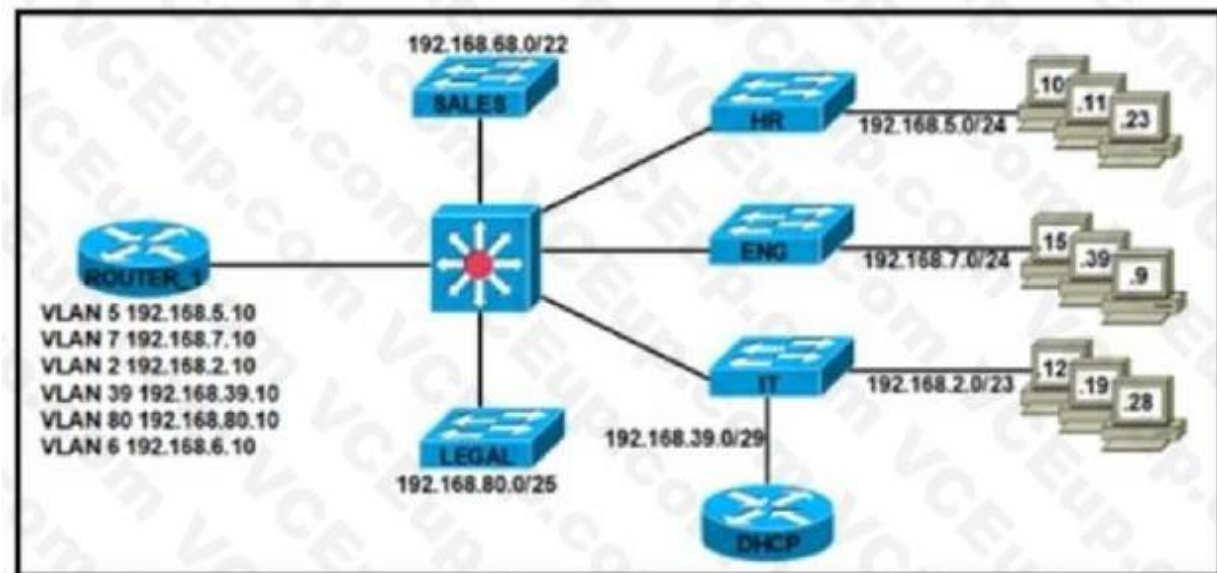
**Section:**

**Explanation:**

:

**QUESTION 231**

Refer to the exhibit.



Refer to the exhibit After an engineer configured a new Cisco router as a DHCP server, users reported two primary issues:

Devices in the HR subnet have intermittent connectivity problems.

Workstations in the LEGAL subnet cannot obtain IP addresses.

Which configurations must the engineer apply to ROUTER\_1 to restore connectivity for the affected devices?

```
○ interface GigabitEthernet0/0.5
 encapsulation dot1Q 5
 ip address 192.168.5.10 255.255.255.0
 ip helper-address 192.168.39.100
 !
interface GigabitEthernet0/0.80
 encapsulation dot1Q 80
 ip address 192.168.80.10 255.255.255.128
 ip helper-address 192.168.39.100
 !
ip dhcp excluded-address 192.168.5.1 192.168.5.10
ip dhcp excluded-address 192.168.80.1 192.168.80.10
 !
ip dhcp pool LEGAL
 network 192.168.80.0 255.255.255.128
 default-router 192.168.80.10

ip dhcp pool HR
 network 192.168.5.0 255.255.255.0
 default-router 192.168.5.10

○ interface GigabitEthernet0/0.5
 encapsulation dot1Q 5
 ip address 192.168.5.10 255.255.255.0
 ip helper-address 192.168.39.100
 !
interface GigabitEthernet0/0.80
 encapsulation dot1Q 80
 ip address 192.168.80.10 255.255.255.128
 ip helper-address 192.168.39.100
 !
ip dhcp excluded-address 192.168.80.1 192.168.80.10
 !
ip dhcp pool LEGAL
 network 192.168.80.0 255.255.255.128
 default-router 192.168.80.10
 !
ip dhcp pool HR
 network 192.168.5.0 255.255.255.0
 default-router 192.168.5.10
```



```
○ interface GigabitEthernet0/0.5
 encapsulation dot1Q 5
 ip address 192.168.5.10 255.255.255.0
 ip helper-address 192.168.93.100
 !
interface GigabitEthernet0/0.80
 encapsulation dot1Q 80
 ip address 192.168.80.10 255.255.255.128
 ip helper-address 192.168.39.100
 !
ip dhcp excluded-address 192.168.5.1 192.168.5.1
ip dhcp excluded-address 192.168.80.1 192.168.80.10
 !
ip dhcp pool LEGAL
 network 192.168.80.0 255.255.255.128
 default-router 192.168.80.10
 !
ip dhcp pool HR
 network 192.168.5.0 255.255.255.0
 default-router 192.168.5.10
```

```
○ interface GigabitEthernet0/0.5
 encapsulation dot1Q 5
 ip address 192.168.5.10 255.255.255.0
 ip helper-address 192.168.39.100
 !
interface GigabitEthernet0/0.80
 encapsulation dot1Q 80
 ip address 192.168.80.10 255.255.255.128
 ip helper-address 192.168.39.100
 !
ip dhcp excluded-address 192.168.5.1 192.168.5.5
ip dhcp excluded-address 192.168.80.1 192.168.80.110
 !
ip dhcp pool LEGAL
 network 192.168.80.0 255.255.255.128
 default-router 192.168.80.10
 !
ip dhcp pool HR
 network 192.168.5.0 255.255.255.0
 default-router 192.168.5.10
```



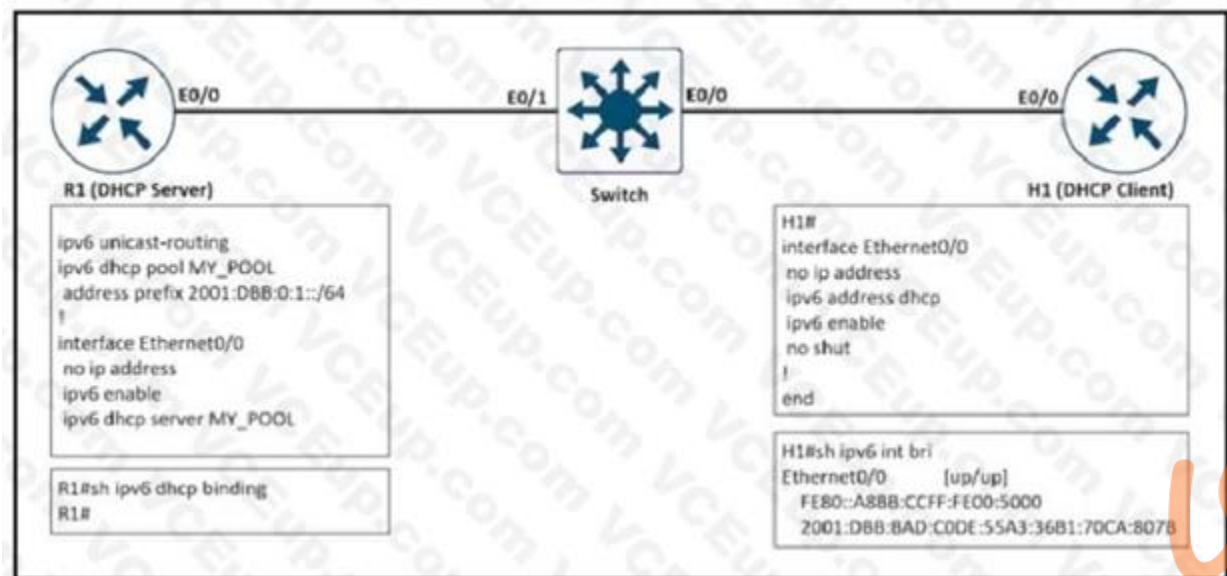
- A. Option A
- B. Option B
- C. Option C
- D. Option D

**Correct Answer: A**

**Section:**

**QUESTION 232**

Refer to the exhibit.



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

- A. Extend the DHCP lease time because R1 removed the IPv6 address earlier after the lease expired.
- B. Configure H1 as the DHCP client that manually assigns the IPv6 address on interlace e0/0..
- C. Use the 2001:DBB:BAD:C0DE::/64 prefix for the DHCP pool on R1.
- D. Configure authorized DHCP servers to avoid IPv6 addresses from a rogue DHCP server.

**Correct Answer: C**

**Section:**

**QUESTION 233**

What is a MPLS PHP label operation?

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

**Correct Answer: A**

**Section:**

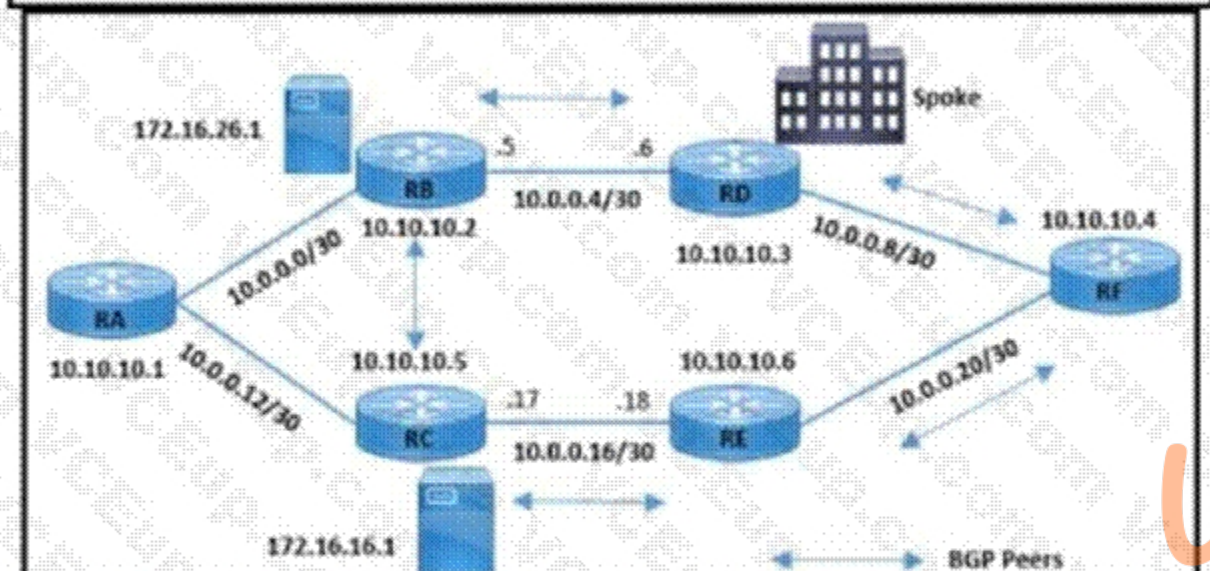
**QUESTION 234**



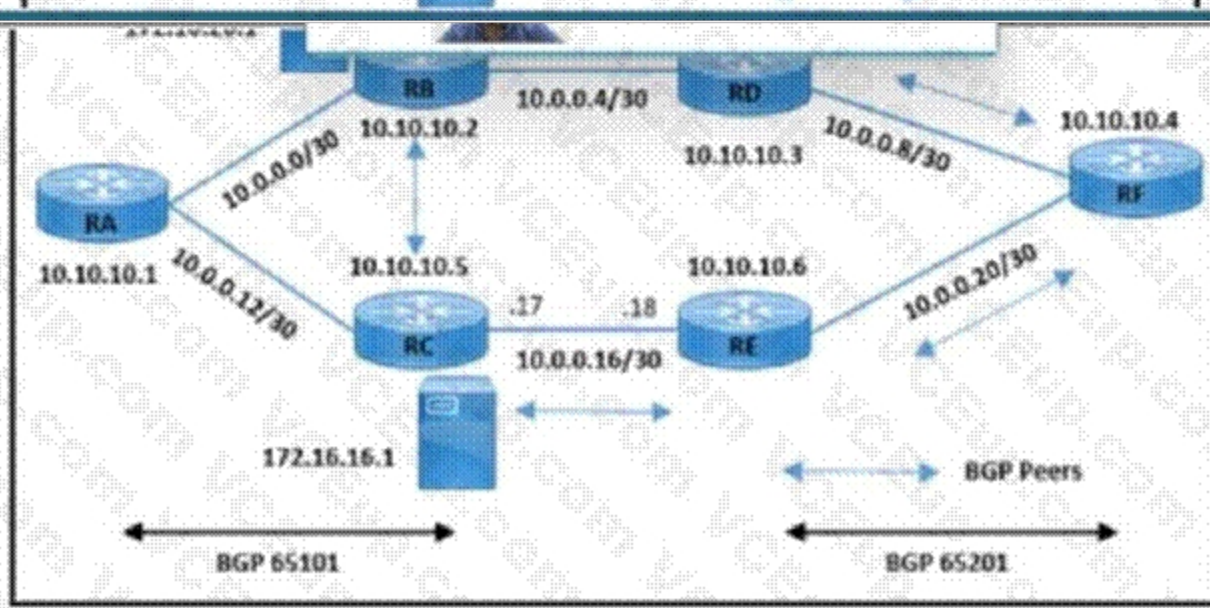
Refer to the exhibit.

```
RB#show ip bgp 172.16.16.1
BGP routing table entry for 172.16.16.1/32, version 11
Paths: (1 available, no best path)
Not advertised to any peer
Local
 10.10.10.5 (metric 3) from 10.10.10.5 (172.16.16.1)
 Origin IGP, metric 0, localpref 100, valid, internal, not synchronized

RD#traceroute 172.16.16.1
Tracing the route to 172.16.16.1
 1 10.0.0.10 [MPLS: Label 29 Exp 0] 64 msec 56 msec 60 msec
 2 10.0.0.21 60 msec 56 msec 72 msec
 3 * * *
```



dumps



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?

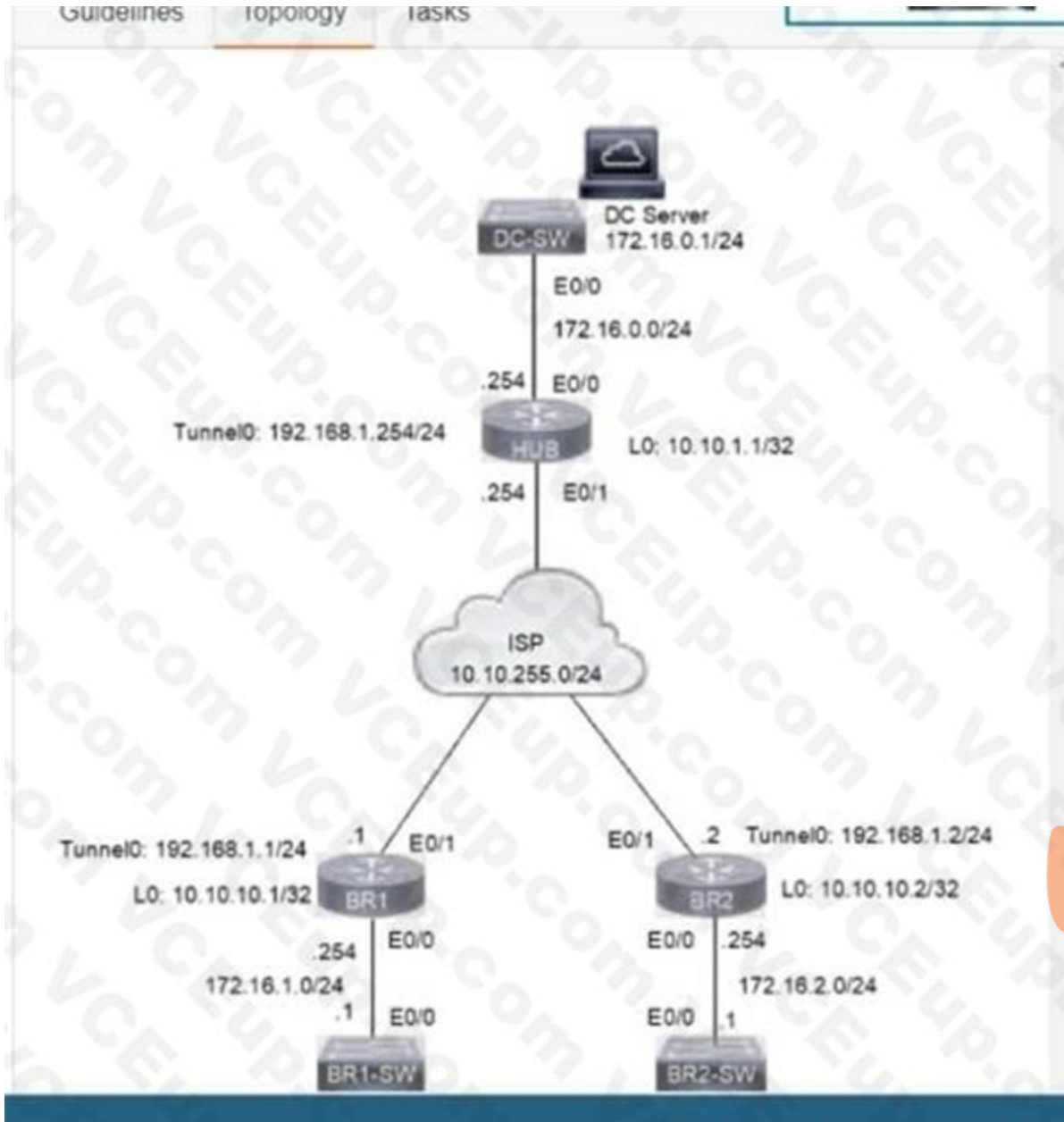
- RB(config)#router bgp 65101  
RB(config-router)#no synchronization
- RC(config)#router bgp 65101  
RC(config-router)#neighbor 10.10.10.2 next-hop-self
- RB(config)#router bgp 65101  
RB(config-router)#neighbor 10.10.10.5 next-hop-self
- RC(config)#router bgp 65101  
RC(config-router)#no synchronization

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

**Correct Answer: B**  
**Section:**

**QUESTION 235**

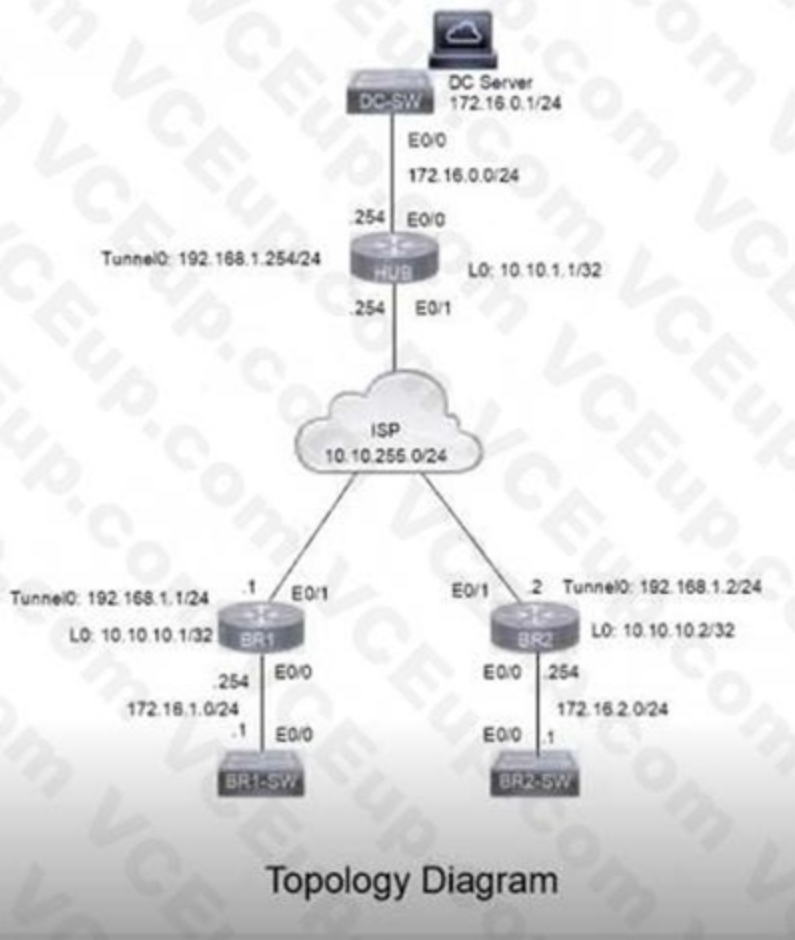
A DMVPN network is preconfigured with tunnel 0 IP address 192.168.1.254 on the HUB, IP connectivity, crypto policies, profiles, and EIGRP AS 100. The NHRP password is ccnp123, and the network ID and tunnel key is EIGRP ASN Do not introduce a static route. Configure DMVPN connectivity between routers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



 **vdumps**

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



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. See explanation

**Correct Answer: A**

**Section:**

**Explanation:**

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 nba 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

Up/Down Time --> Up or Down Time for a Tunnel

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

Ent Peer NHRP Addr Peer Tunnel Addr State Up/Down 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 nba 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

```

ON BR2



### QUESTION 236

#### DRAG DROP

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

```

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

```

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

Select and Place:

```
CE1
interface Gig0/0
 ip vrf forwarding [redacted]
 ip address [redacted]
!
interface Gig0/1
 ip vrf forwarding [redacted]
 ip address [redacted]

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

customer\_a  
customer\_b  
192.168.1.1 255.255.255.0  
192.168.1.2 255.255.255.0

Correct Answer:

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

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

customer\_a  
customer\_b  
192.168.1.1 255.255.255.0  
192.168.1.2 255.255.255.0



Section:  
Explanation:

QUESTION 237  
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

**Correct Answer: D**

**Section:**

**QUESTION 238**

Refer to the exhibit.

The logo for Vdumps.com, featuring a stylized orange 'V' followed by the word 'dumps' in a grey, lowercase, sans-serif font.



R1#sh track brief

| Track Type | Instance  | Parameter    | State | Last Change |
|------------|-----------|--------------|-------|-------------|
| 1          | ip sla 10 | reachability | Down  | 00:03:52    |

R1#show ip sla configuration

IP SLAs Infrastructure Engine-III

Entry number: 10

Owner:

Tag:

Operation timeout (milliseconds): 5000

Type of operation to perform: icmp-echo

Target address/Source interface: 10.10.10.10/GigabitEthernet0/0

<->

Schedule:

Operation frequency (seconds): 60 (not considered if randomly scheduled)

Next Scheduled Start Time: Pending trigger

Group Scheduled : FALSE

Randomly Scheduled : FALSE

Life (seconds): Forever

Entry Ageout (seconds): never

Recurring (Starting Everyday): FALSE

Status of entry (SNMP RowStatus): Active

Threshold (milliseconds): 5000

Distribution Statistics:

Vdumps

```
Operation timeout (milliseconds): 5000
Type of operation to perform: icmp-echo
Target address/Source interface: 10.10.10.10/GigabitEthernet0/0
↔
Schedule:
 Operation frequency (seconds): 60 (not considered if randomly scheduled)
 Next Scheduled Start Time: Pending trigger
 Group Scheduled : FALSE
 Randomly Scheduled : FALSE
 Life (seconds): Forever
 Entry Ageout (seconds): never
 Recurring (Starting Everyday): FALSE
 Status of entry (SNMP RowStatus): Active
Threshold (milliseconds): 5000
Distribution Statistics:
```

Refer to the exhibit A network engineer notices that the configured track option is down Which configuration resolves the issue\*?

- A. ip sla schedule 10 start-time now
- B. ip sla schedule 10 start-time pending life forever
- C. ip sla schedule 10 no timeout
- D. ip sla schedule 10 no threshold

**Correct Answer: A**

**Section:**

**QUESTION 239**

Refer to the exhibit.

```
R1 (config)#interface GigabitEthernet 0/0
R1 (config-if)#ip address 10.10.10.10 255.255.255.252
R1 (config-if)#ospfv3 1 ipv4 area 0

R2 (config)#interface GigabitEthernet 0/0
R2 (config-if)#ip address 10.10.10.11 255.255.255.252
R2 (config-if)#ospfv3 10 ipv4 area 0
R2 (config-if)#ospfv3 network broadcast
```

Refer to the exhibit An engineer is troubleshooting an OSPF adjacency issue between directly connected routers R1 and R2 Which configuration resolves the issue?

A)

```
R1(config)#interface GigabitEthernet 0/0
R1(config-if)#ospfv3 network broadcast
```

B)

The logo for Vdumps.com, featuring a stylized orange 'V' followed by the word 'dumps' in a grey, lowercase, sans-serif font.

```
R2(config)#interface GigabitEthernet 0/0
R2(config-if)#ip address 10.10.10.9 255.255.255.252
```

C)

```
R1(config)#interface GigabitEthernet 0/0
R1(config-if)#ospfv3 10 ipv4 area 0
```

D)

```
R2(config)#interface GigabitEthernet 0/0
R2(config-if)#no ospfv3 network broadcast
```

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

**Correct Answer: B**

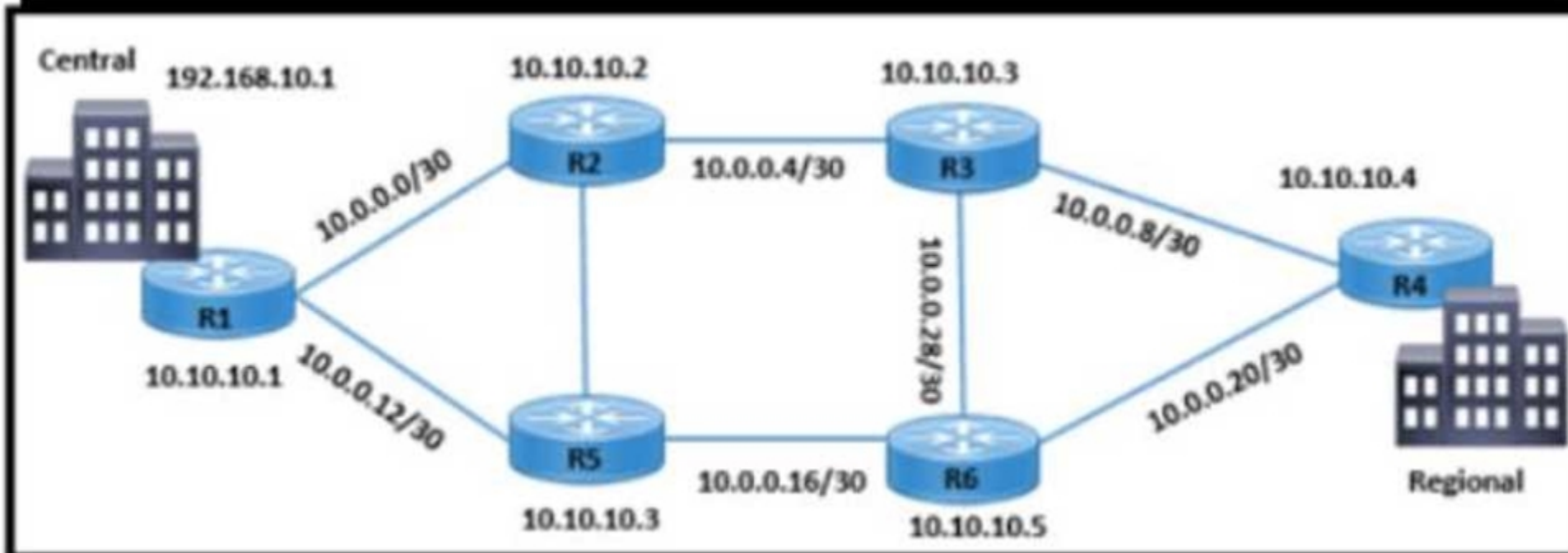
**Section:**

QUESTION 240

Refer to the exhibit.

```
R3#show ip sla statistics
IPSLAs Latest Operation Statistics
IPSLA operation id: 10
Type of operation: icmp-echo
 Latest RTT: 24 milliseconds
Latest operation start time: *21:26:43.211 UTC Sat Sep 18 2021
Latest operation return code: OK
Number of successes: 75
Number of failures: 0
Operation time to live: Forever

IPSLA operation id: 20
Type of operation: icmp-echo
 Latest RTT: NoConnection/Busy/Timeout
Latest operation start time: *21:26:47.499 UTC Sat Sep 18 2021
Latest operation return code: No connection
Number of successes: 128
Number of failures: 459
Operation time to live: Forever
```



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"

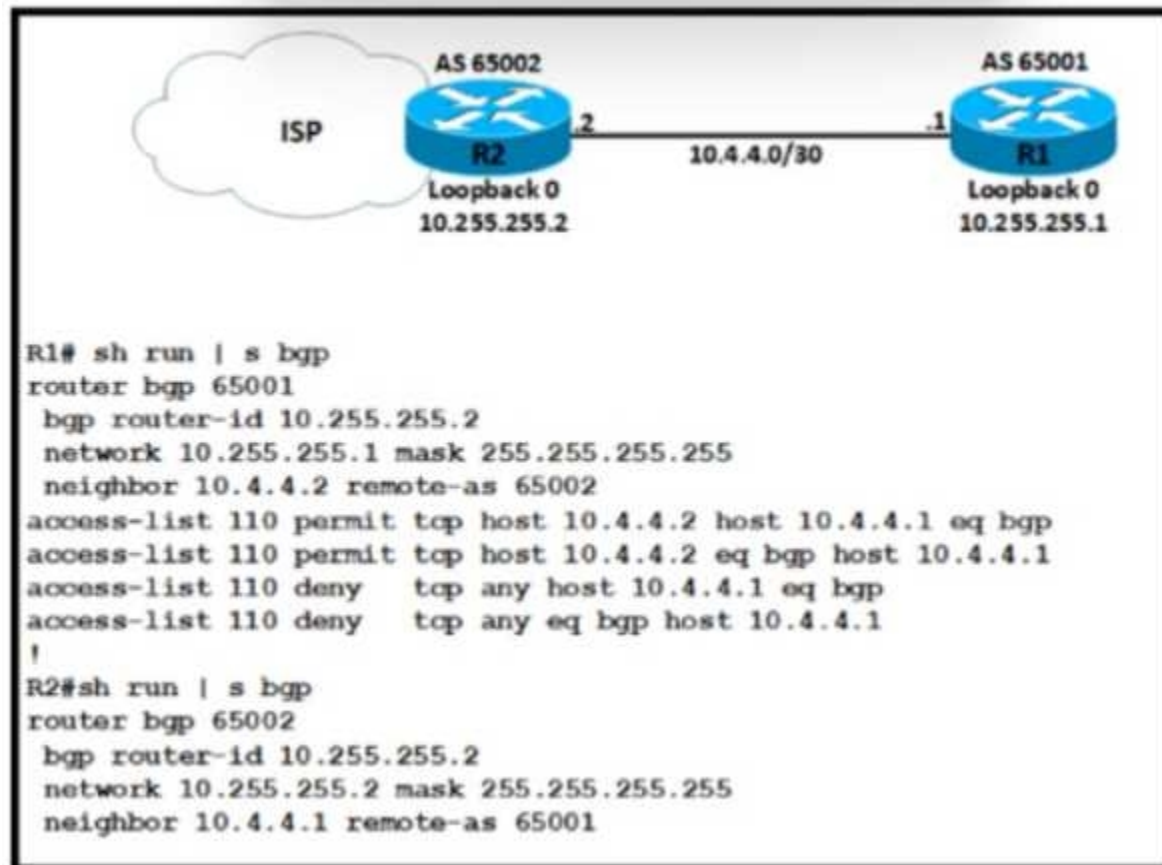
- A. R3(config)#ip route 192.168.10.1 255.255.255.255 10.10.10.2 track 20
- B. R2(config)#ip route 10.10.10.3 255.255.255.255 10.0.0.6
- C. R3(config)#track( 20 ip sla 20 reachability
- D. R6(config)#ip route 10.10.10.3 255.255.255.255 10.0.0.30

**Correct Answer: A**

**Section:**

#### QUESTION 241

Refer to the exhibit.



Refer to the exhibit A network engineer notices that R1 and R2 cannot establish an eBGP peering.

The following messages appear in the log:

```
*Dec 21 12:08:59.991: BGP: br topo global 10.4.4.2 IPv4 Unicast base (0x6A8B3998:1) NSF delete stale NSF not active
*Dec 21 12:08:59.995: BGP: br topo global 10.4.4.2 IPv4 Unicast base (0x44397103:1) NSF no stale paths state is NSF not active
*Dec 21 12:08:59.995: BGP: br topo global 10.4.4.2 IPv4 Unicast base (0x6A8B3998:1) Resetting ALL counters.
*Dec 21 12:09:09.819: BG-3-NOTIFICATION: sent to neighbor 10.4.4.2 passive 2/3 (BGP identifier wrong) 4 bytes 0AFF02
*Dec 21 12:09:09.823: BGP-4-MSGDUMP: unsupported or mal-formatted message received from 10.4.4.2:
*Dec 21 12:09:12.443: 8BGP SESSION-5-ADJCHANGE: neighbor 10.4.4.2 IPv4 Unicast topology base removed from session BGP Notification received
*Dec 21 12:09:00.191: BGP: br global 10.4.4.2 Open active delayed 12288ms (35000ms max, 60% jitter)
```

Which configuration must the engineer apply to R1 to restore the eBGP peering?

A)

```
router bgp 65001
 bgp router-id 10.255.255.2
 neighbor 10.4.4.2 remote-as 65002
access-list 110 permit tcp host 10.4.4.2 host 10.4.4.1 eq 179
access-list 110 permit tcp host 10.4.4.2 eq 179 host 10.4.4.1
access-list 110 deny tcp any host 10.4.4.1 eq 179
access-list 110 deny tcp any eq 179 host 10.4.4.1
```

B)

```
router bgp 65001
 bgp router-id 10.255.255.2
 neighbor 10.4.4.2 remote-as 65002
access-list 110 permit udp host 10.4.4.2 host 10.4.4.1 eq 179
access-list 110 permit udp host 10.4.4.2 eq 179 host 10.4.4.1
access-list 110 deny udp any host 10.4.4.1 eq 179
access-list 110 deny udp any eq 179 host 10.4.4.1
```

C)

```
router bgp 65001
 bgp router-id 10.255.255.1
 neighbor 10.4.4.2 remote-as 65002
access-list 110 permit tcp host 10.4.4.2 host 10.4.4.1 eq 179
access-list 110 permit tcp host 10.4.4.2 eq 179 host 10.4.4.1
access-list 110 deny tcp any host 10.4.4.1 eq 179
access-list 110 deny tcp any eq 179 host 10.4.4.1
```

D)

```
router bgp 65001
 bgp router-id 10.255.255.1
 neighbor 10.4.4.2 remote-as 65002
access-list 110 permit udp host 10.4.4.2 host 10.4.4.1 eq 179
access-list 110 permit udp host 10.4.4.2 eq 179 host 10.4.4.1
access-list 110 deny udp any host 10.4.4.1 eq 179
access-list 110 deny udp any eq 179 host 10.4.4.1
```

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

**Correct Answer: A**

**Section:**

#### QUESTION 242

How is the LDP router ID used in an MPLS network?

- A. The MPLS LDP router ID must match the IGP router ID.
- B. If not configured, the operational physical interface is chosen as the router ID even if a loopback is configured.
- C. The loopback with the highest IP address is selected as the router ID
- D. The force keyword changes the router ID to the specified address without causing any impact.

**Correct Answer: D**

**Section:**

**QUESTION 243**

Which two label distribution methods are used by routers in MPLS? (Choose two )

- A. targeted hello message
- B. LDP discovery hello message
- C. LDP session protection message
- D. downstream unsolicited
- E. downstream on demand

**Correct Answer: D, E**

**Section:**

**QUESTION 244**

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

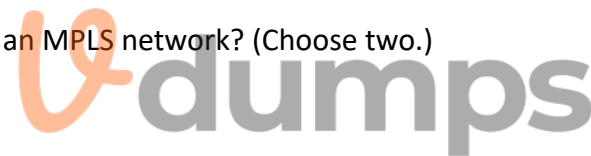
- A. BGP
- B. OSPF
- C. MP-BGP
- D. LDP
- E. RSVP

**Correct Answer: C, D**

**Section:**

**QUESTION 245**

Refer to the exhibit.



```
R1#show running-config | begin router eigrp
router eigrp 100
 network 172.16.250.0 0.0.0.255
 redistribute ospf 1 metric 1 1 1 1 1
!
router ospf 1
 redistribute eigrp 100 subnets
 network 192.168.250.0 0.0.0.255 area 0
```

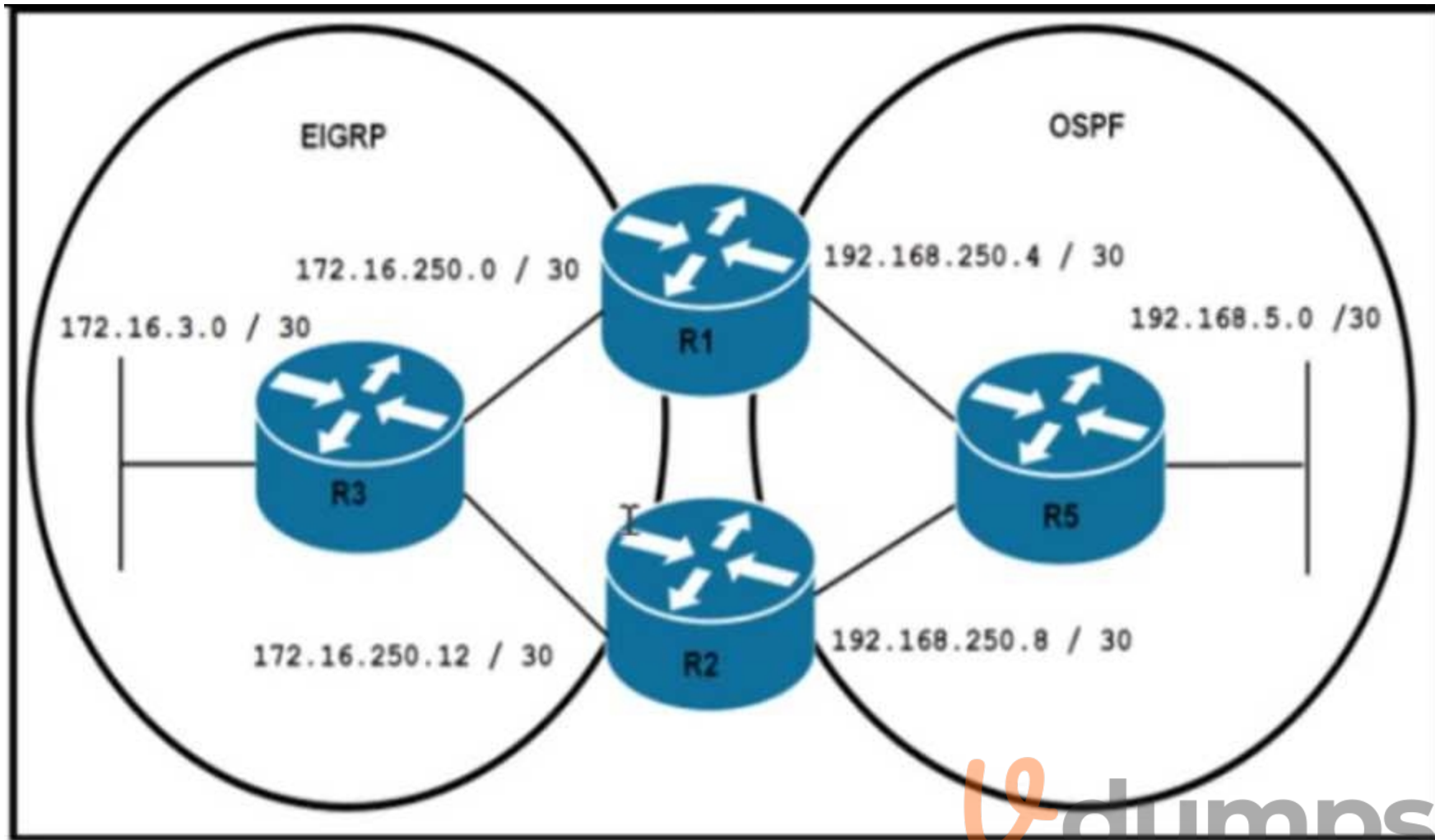
```
R2#show runn | begin router eigrp
router eigrp 100
 network 172.16.250.0 0.0.0.255
 redistribute ospf 1 metric 1 1 1 1 1
!
router ospf 1
 redistribute eigrp 100 subnets
 network 192.168.250.0 0.0.0.255 area 0
!
ip forward-protocol nd
```

```
R5#traceroute 172.16.3.1
Type escape sequence to abort.
Tracing the route to 172.16.3.1
VRF info: (vrf in name/id, vrf out name/id)
 1 192.168.250.9 66 msec
 192.168.250.6 6 msec
 192.168.250.9 8 msec
 2 172.16.250.2 33 msec
 172.16.250.14 88 msec
 172.16.250.2 11 msec
```

R5#

The logo for Vdumps.com, featuring a stylized orange 'V' followed by the word 'dumps' in a grey, lowercase, sans-serif font.





Refer to the exhibit. An engineer is troubleshooting a routing loop on the network to reach the 172.16.3.0/16 from the OSPF domain. Which configuration on router R1 resolves the issue?

A)

```

router ospf 1
 redistribute eigrp 100 subnets route-map LOOPFILT
!
route-map LOOPFILT deny 10
 match ip address 15
!
route-map LOOPFILT permit 20
!
access-list 15 permit 172.16.0.0 0.0.255.255

```

B)

```
router eigrp 100
 redistribute ospf 1 metric 1 1 1 1 1 route-map LOOPFILT
 !
 route-map LOOPFILT deny 10
 match ip address 15
 !
 route-map LOOPFILT permit 20
 !
 access-list 15 permit 172.16.0.0 0.0.255.255
```

C)

```
router ospf 1
 redistribute eigrp 100 route-map LOOPFILT
 !
 route-map LOOPFILT deny 10
 match ip address 15
 !
 access-list 15 permit 172.16.0.0 0.0.255.255
```

D)

```
router eigrp 100
 redistribute ospf 1 metric 1 1 1 1 1 route-map LOOPFILT
 !
 route-map LOOPFILT deny 10
 match ip address 15
 !
 access-list 15 permit 172.16.0.0 0.0.255.255
```

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

**Correct Answer: C**  
**Section:**

**QUESTION 246**  
Refer to the exhibit.



```

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
!

```

```

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 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
!

```

R3#sh ip route

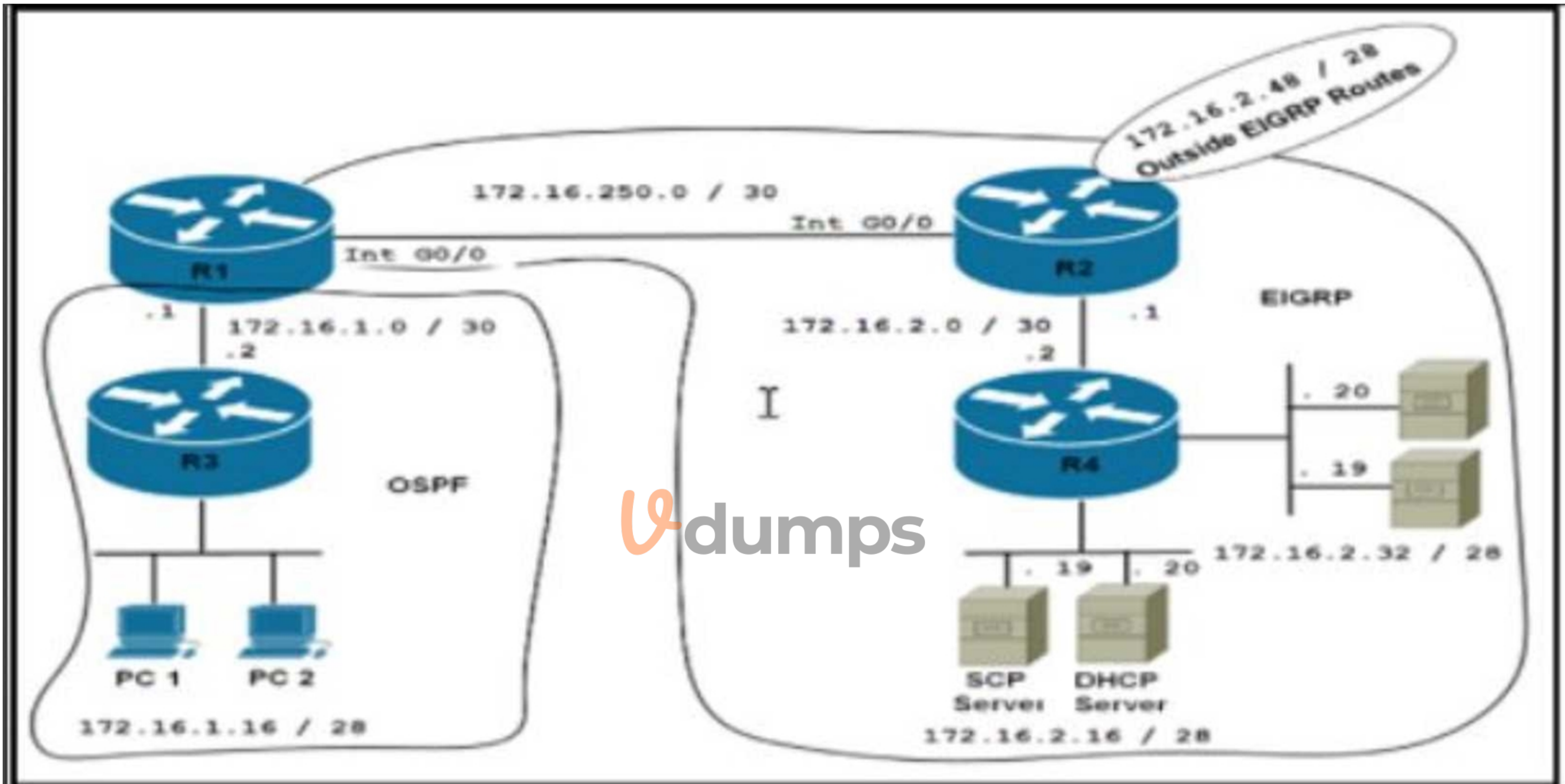
Gateway of last resort is not set

```

 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#

```

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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
```

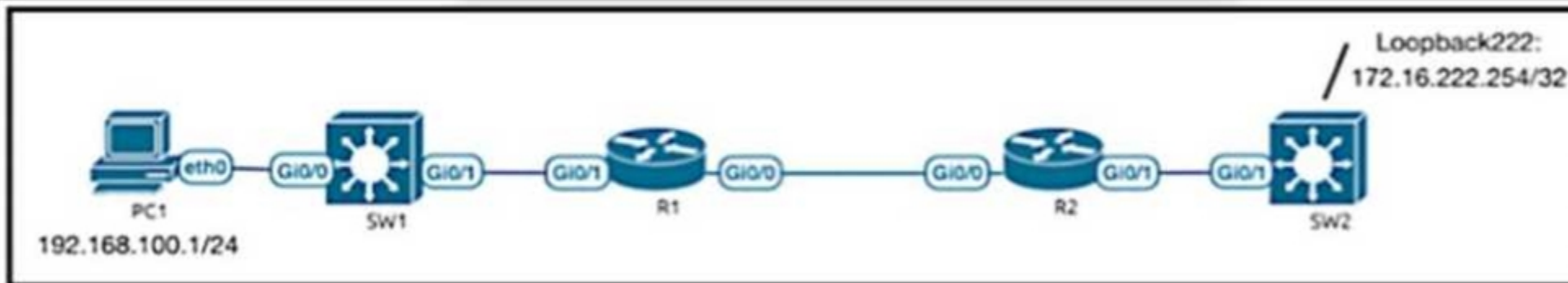
- A. Option A
- B. Option B
- C. Option C
- D. Option D

**Correct Answer: D**

**Section:**

#### QUESTION 247

Refer to the exhibit.



Refer to the exhibit R2 can reach Loopback222, but R1 SW1 and PC1 cannot communicate with 172.16.222.254 R1 and R2 configurations are shown here

```
R1#show run | sec router eigrp
router eigrp VR1
!
address-family ipv4 unicast autonomous-system 1
!
topology base
exit-af-topology
network 172.16.1.1 0.0.0.0
network 192.168.100.0
network 192.168.200.0
network 192.168.255.91 0.0.0.0
exit-address-family
```

```
R2(config)#do show run | sec router eigrp
router eigrp 1
network 172.16.1.2 0.0.0.0
network 172.16.222.0 0.0.0.255
network 192.168.222.254 0.0.0.0
```

Which EIGRP configuration command resolves the issue?

- A. R2(config-router) # redistribute static
- B. R1(config-router)# network 172.16.222.254 0.0.0.0
- C. R1 (config-router)# network 172.16.222.264 255.255.255.255
- D. R1(config-router)# redistribute static

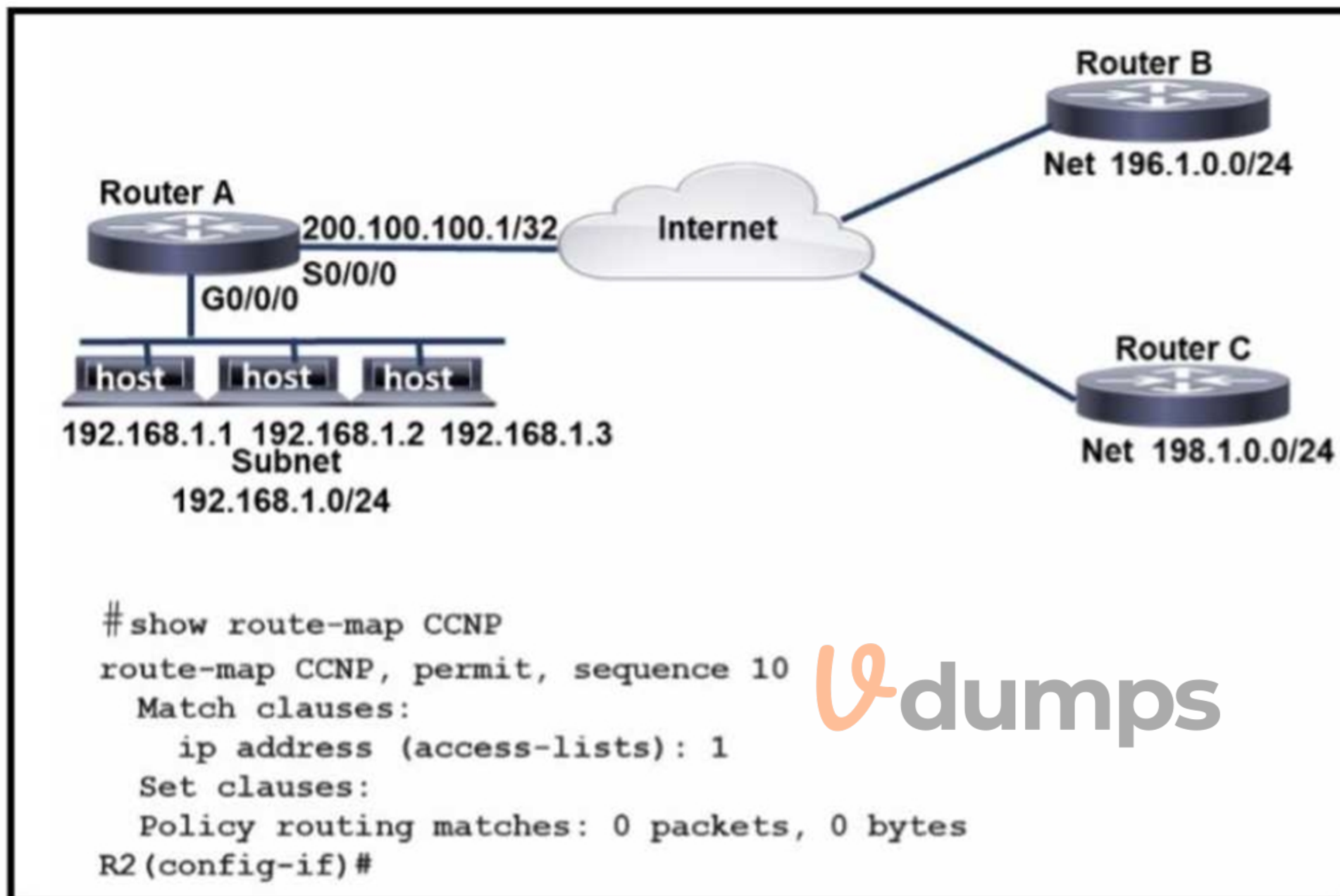
**Correct Answer: A**

**Section:**

**QUESTION 248**

Refer to the exhibit.





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

Correct Answer: A

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Section:

