

CCNP(300-410)ENARSI题库 (2022.03.05)

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Implementing Cisco Enterprise Advanced Routing and Services

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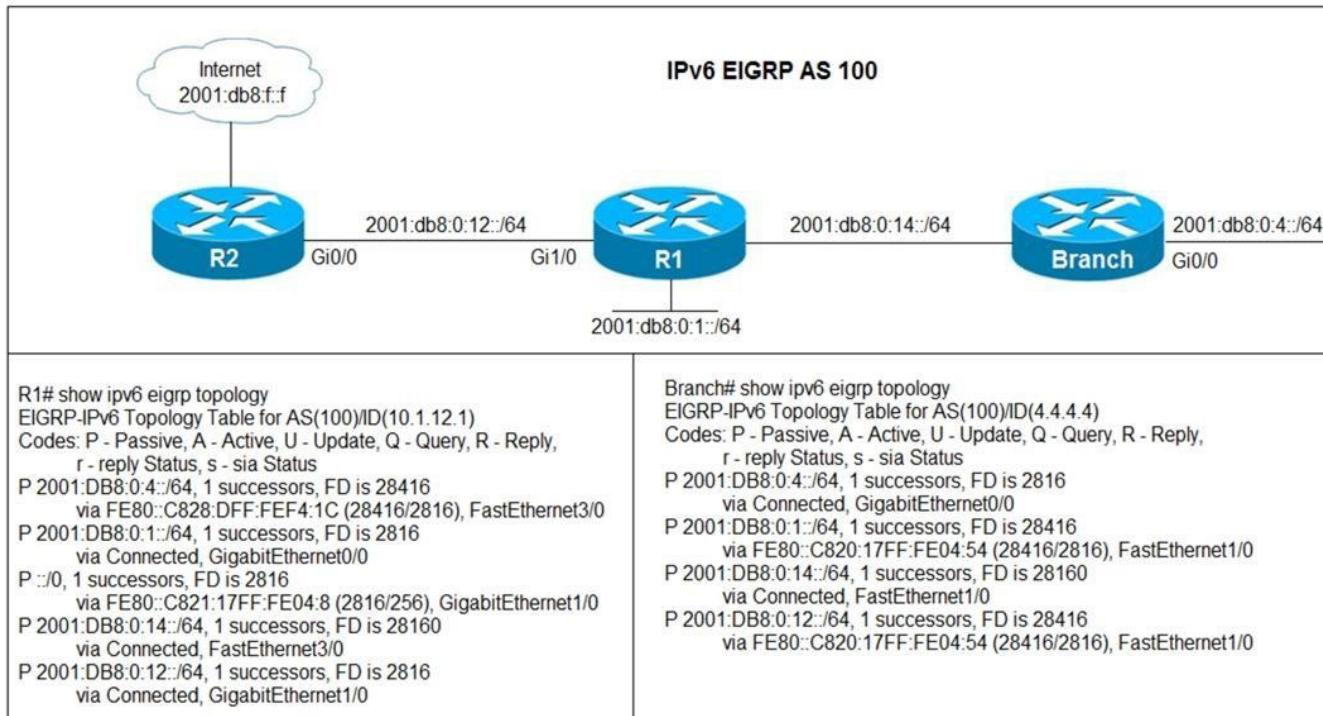
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Exam A

QUESTION 1

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

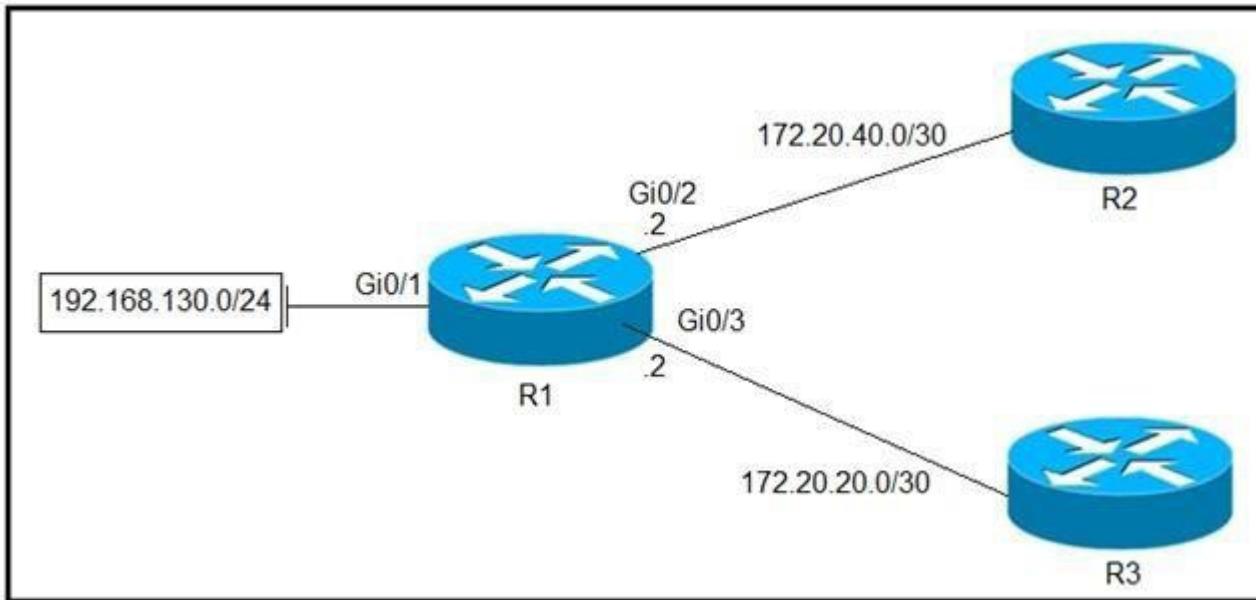


- A. Issue the `eigrp stub` command on R1.
- B. Issue the `no eigrp stub` command on R1.
- C. Issue the `eigrp stub` command on R2.
- D. Issue the `no eigrp stub` command on R2.

Correct Answer: B

QUESTION 2

Refer to the exhibit. Which configuration configures a policy on R1 to forward any traffic that is sourced from the 192.168.130.0/24 network to R2?



A.

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

B. **access-list 1 permit 192.168.130.0 0.0.0.255**

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

C. **access-list 1 permit 192.168.130.0 0.0.0.255**

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

D. **access-list 1 permit 192.168.130.0 0.0.0.255**

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

Correct Answer: D

QUESTION 3

R2 has a locally originated prefix 192.168.130.0/24 and has these configurations:

```
ip prefix-list test seq 5 permit 192.168.130.0/24
!
route-map OUT permit10
match ip address prefix-list test
set as-path prepend 65000
```

What is the result when the route-map OUT command is applied toward an eBGP neighbor R1 (1.1.1.1) by using the neighbor 1.1.1.1 route-map OUT out command?

- A. R1 sees 192.168.130.0/24 as two AS hops away instead of one AS hop away.
- B. R1 does not accept any routes other than 192.168.130.0/24
- C. R1 does not forward traffic that is destined for 192.168.130.0/24
- D. Network 192.168.130.0/24 is not allowed in the R1 table

Correct Answer: A

QUESTION 4

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

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

Correct Answer: C

QUESTION 5

Refer to the exhibit. The output of the trace route from R5 shows a loop in the network. Which configuration prevents this loop?



```

R1
router eigrp 1
redistribute connected
network 10.1.12.1 0.0.0.0

R3
router ospf 1
redistribute eigrp 1 subnets
network 10.1.35.3 0.0.0.0 area 0

R4
router eigrp 1
redistribute ospf 1 metric 2000000 1 255 1 1500
!
router ospf 1
network 10.1.45.4 0.0.0.0 area 0

R5#traceroute 10.1.1.1
Type escape sequence to abort.
Tracing the route to 10.1.1.1

1 10.1.35.3 80 msec 44 msec 20 msec
2 10.1.23.2 44 msec 104 msec 64 msec
3 10.1.24.4 44 msec 64 msec 40 msec
4 10.1.45.5 24 msec 40 msec 20 msec
5 10.1.35.3 92 msec 144 msec 148 msec
6 10.1.23.2 108 msec 76 msec 80 msec
<output truncated>

```

A. R3

```
router ospf 1
 redistribute eigrp 1 subnets route-map SET-TAG
!
route-map SET-TAG permit 10
 set tag 1
```

R4

```
router eigrp 1
 redistribute ospf 1 metric 2000000 1 255 1 1500 route-map FILTER-TAG
!
route-map FILTER-TAG deny 10
 match tag 1
!
route-map FILTER-TAG permit 20
```

B. R3

```
router eigrp 1
 redistribute OSPF 1 route-map SET-TAG
!
route-map SET-TAG permit 10
 set tag 1
```

R4

```
router eigrp 1
 redistribute ospf 1 metric 2000000 1 255 1 1500 route-map FILTER-TAG
 network 10.1.24.4 0.0.0.0
!
route-map FILTER-TAG deny 10
 match tag 1
!
route-map FILTER-TAG permit 20
```

C. R3

```
router ospf 1
 redistribute eigrp 1 subnets route-map SET-TAG
!
route-map SET-TAG permit 10
 set tag 1
```

R4

```
router eigrp 1
 redistribute ospf 1 metric 2000000 1 255 1 1500 route-map FILTER-TAG
!
route-map FILTER-TAG permit 10
 match tag 1
```

D. R3

```
router ospf 1
 redistribute eigrp 1 subnets route-map SET-TAG
!
route-map SET-TAG deny 10
 set tag 1
```

R4

```
router eigrp 1
 redistribute ospf 1 metric 2000000 1 255 1 1500 route-map FILTER-TAG
!
route-map FILTER-TAG deny 10
 match tag 1
```

Correct Answer: A

QUESTION 6

Refer to the exhibit. 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?

```
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

    192.168.1.0/32 is subnetted, 1 subnets
C        192.168.1.1 is directly connected, Loopback0
    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
        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
        209.165.200.0/24 is variably subnetted, 2 subnets, 2 masks
C            209.165.200.0/24 is directly connected, Ethernet0/1
            209.165.200.226/32 is directly connected, Ethernet0/1
```

- 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

QUESTION 7

Refer to the exhibit. 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?

```
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#
```

- 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

QUESTION 8

Refer to the exhibit. 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?

```
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#|
```

- 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

QUESTION 9

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

QUESTION 10

Refer to the exhibit. 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?

```
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      ?
```

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#
```

- 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

QUESTION 11

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

```
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#
```

- 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

QUESTION 12

Refer to the exhibit. In which circumstance does the BGP neighbor remain in the idle condition?

```
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 0:02:04  Idle (PfxCt)
R200#
```

- 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

QUESTION 13

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

QUESTION 14

Refer to the exhibit. 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?

```
* 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
```

- 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

QUESTION 15

Refer to the exhibit. What is the result of applying this configuration?

```
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
```

- 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

QUESTION 16

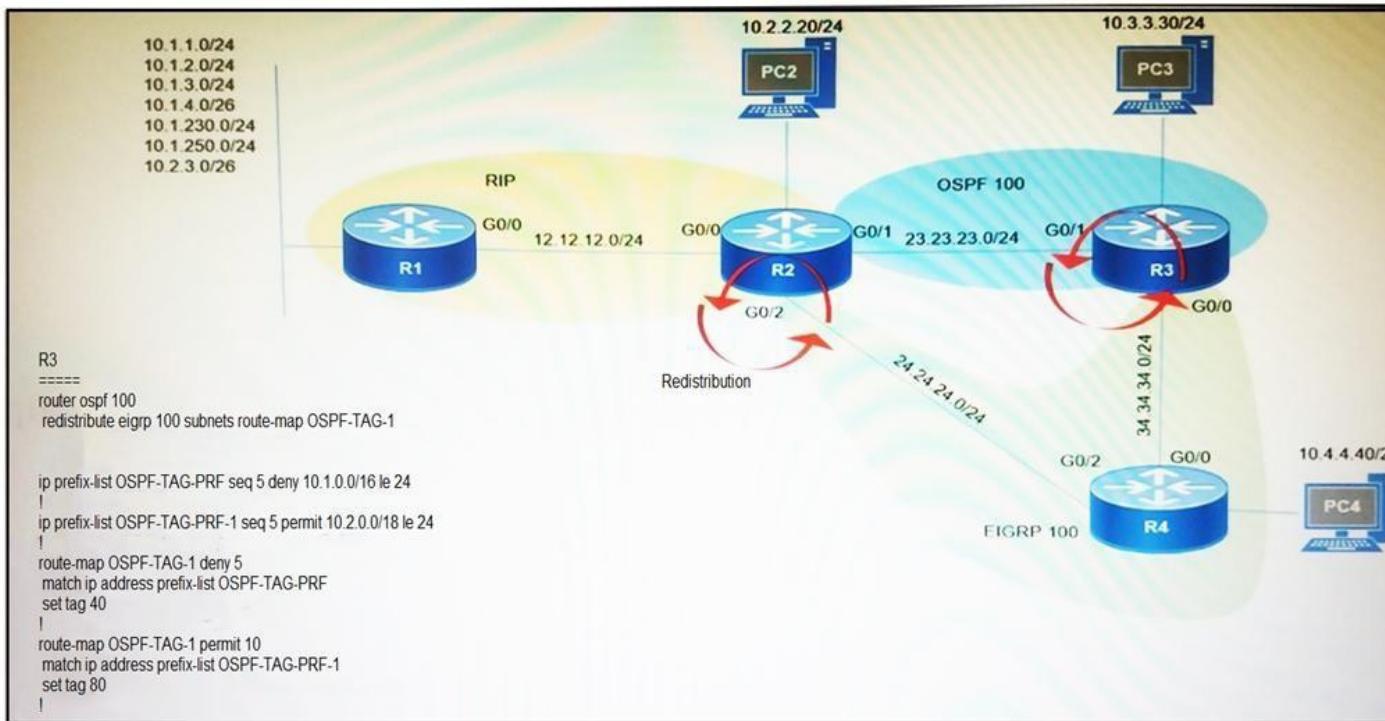
Which command displays the IP routing table information that is associated with VRF-Lite?

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

Correct Answer: B

QUESTION 17

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

QUESTION 18

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

- A. router ospfv3 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

QUESTION 19

Refer to the exhibit. Which statement about R1 is true?

```
R1(config)#route-map ADD permit 20
```

```
R1(config-route-map)#set tag 1
```

```
R1(config)#router ospf1
```

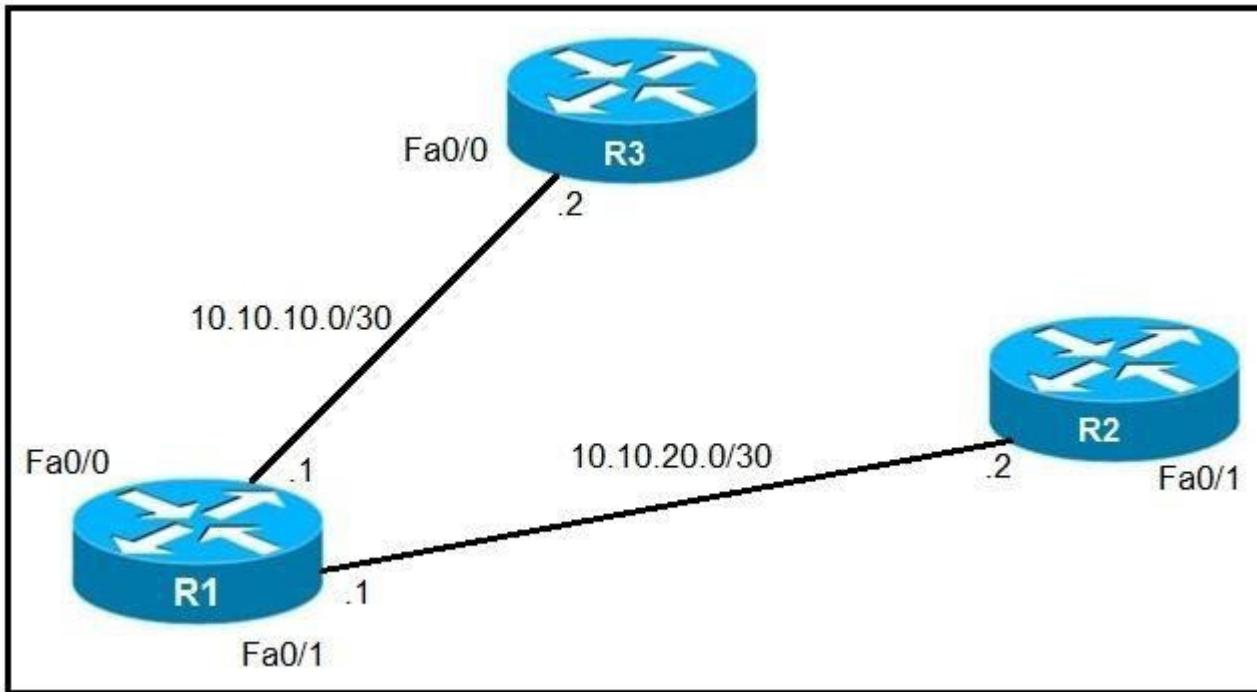
```
R1(config-router)#redistribute rip subnets route-map ADD
```

- 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

QUESTION 20

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

QUESTION 21

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

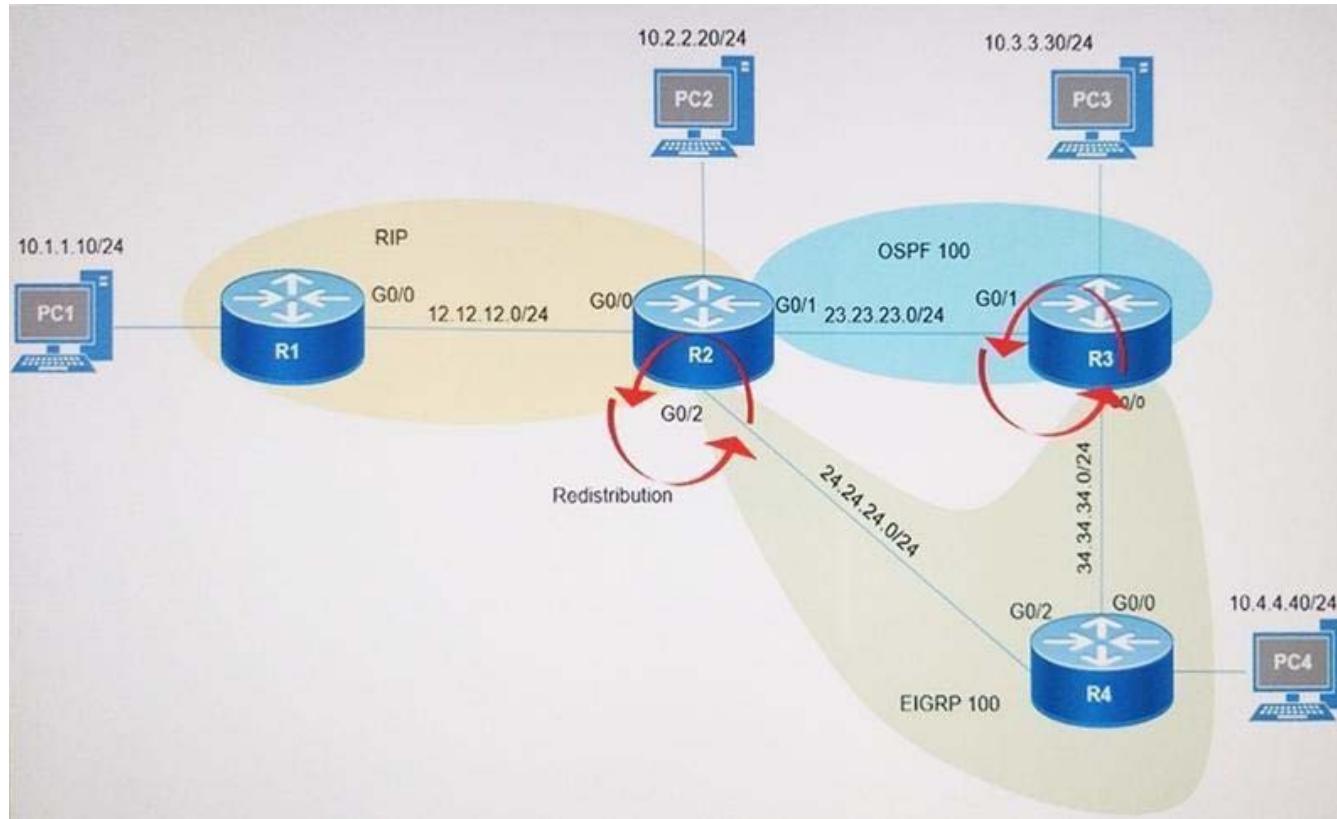
- A. R1(config)# ip vrf Inet
R1(config-vrf)#ip vrf FastEthernet0/0
- B. R1(config)#ip vrf Inet FastEthernet0/0
- C. R1(config)# ip vrf Inet
R1(config-vrf)#interface FastEthernet0/0

```
R1(config-if)#ip vrf forwarding Inet  
D. R1(config)#router ospf 1 vrf Inet  
R1(config-router)#ip vrf forwarding FastEthernet0/0
```

Correct Answer: C

QUESTION 2

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: B

QUESTION 23

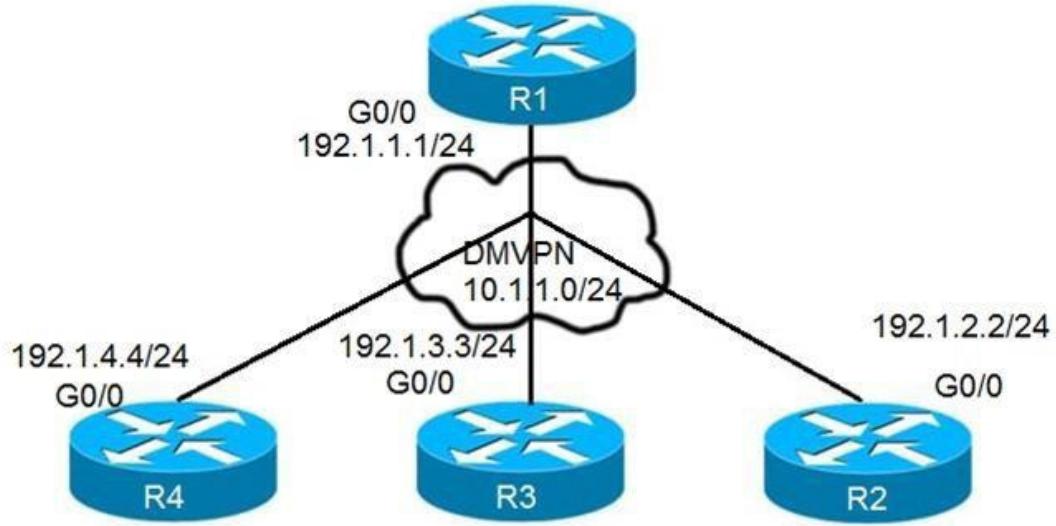
Which command allows traffic to load-balance in an MPLS Layer 3 VPN configuration?

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

Correct Answer: C

QUESTION 24

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.)



on R2:

```
R2(config)# crypto isakmp policy 10
R2(config-isakmp) # hash md5
R2(config-isakmp) # authentication pre-share
R2(config-isakmp) # group 2
R2(config-isakmp) # encryption 3des
R2(config)# crypto isakmp key cisco address 10.1.1.1
R2(config)# crypto ipsec transform-set TSET esp-des esp-md-hmac
R2(cfg-crypto-trans)# mode transport
R2(config)# crypto ipsec profile TST R2 (ipsec-profile) # set transform-set TSET
R2(config)# interface tunnel 123
R2(config-if)# tunnel protection ipsec profile TST
```

on R3:

```
R3(config)# crypto isakmp policy 10
R3(config-isakmp) # hash md5
R3(config-isakmp) # authentication pre-share
R3(config-isakmp) # group 2
R3(config-isakmp) # encryption 3des
R3(config)# crypto isakmp key cisco address 10.1.1.1
R3(config)# crypto ipsec transform-set TSET esp-des esp-md5-hmac
R3(cfg-crypto-trans)# mode tunnel
R3(config)# crypto ipsec profile TST R3 (ipsec-profile) + set transform-set TSET
R3(config)# interface tunnel 123
R3(config-if)# tunnel protection ipsec profile TST
```

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

Correct Answer: BD

QUESTION 25

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

QUESTION 26

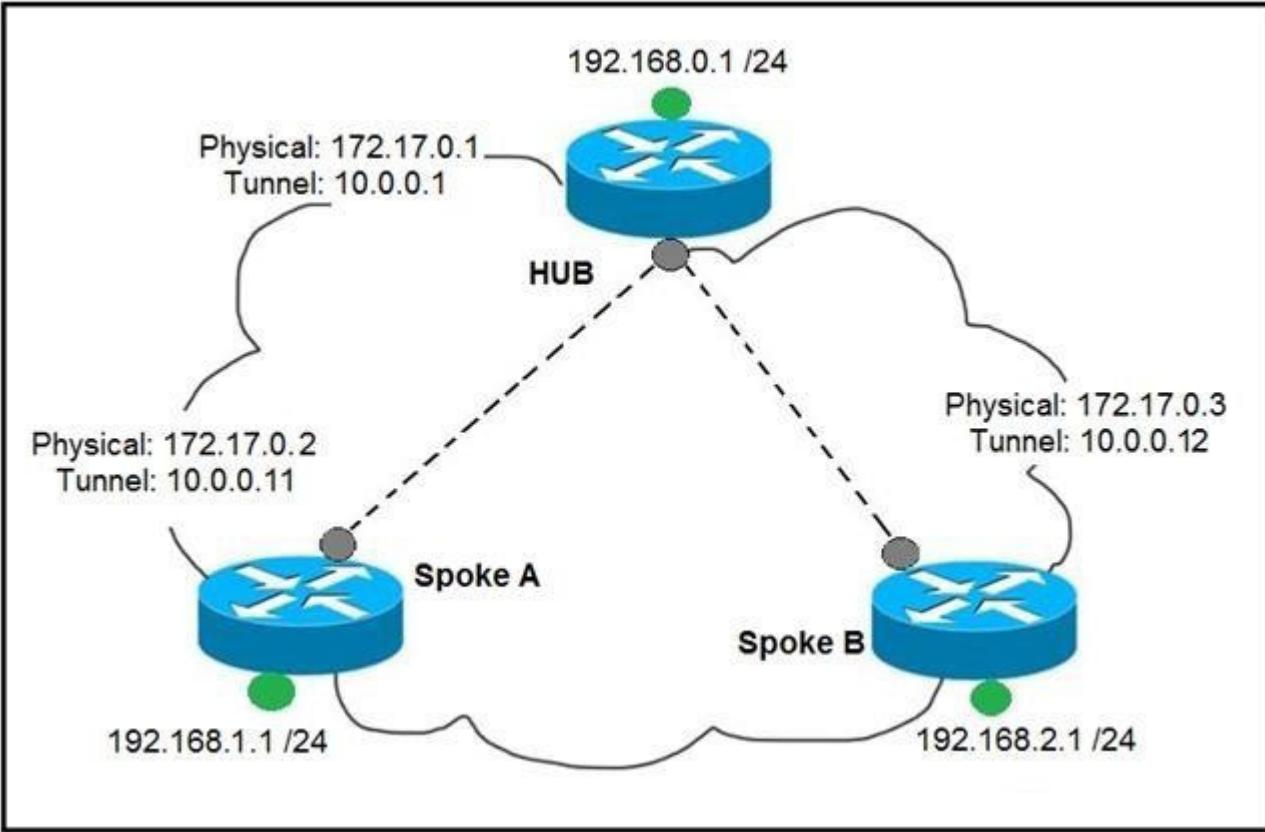
Which statement about MPLS LDP router ID is true?

- 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

QUESTION 27

Refer to the exhibit. 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
```

Correct Answer: B

QUESTION 28

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

QUESTION 29

Refer to the exhibit. What does the imp-null tag represent in the MPLS VPN cloud?

```
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
```

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

Correct Answer: A

QUESTION 30

Which transport layer protocol is used to form LDP sessions?

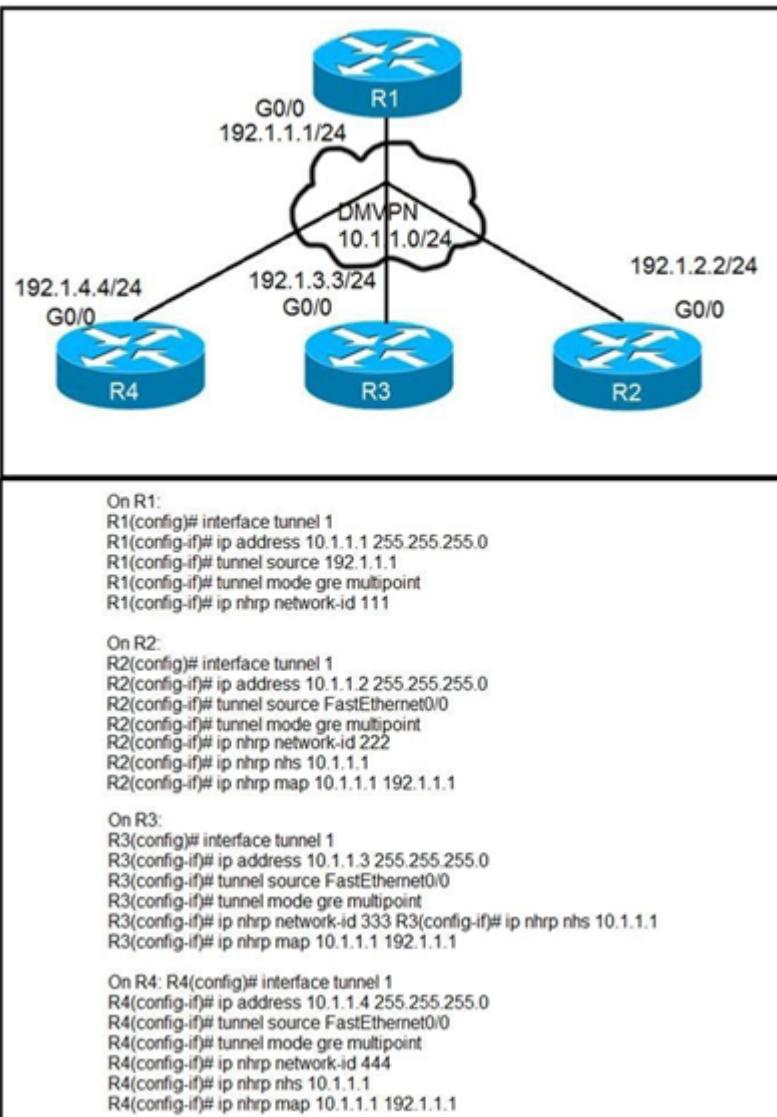
- A. UDP
- B. SCTP

- C. TCP
- D. RDP

Correct Answer: C

QUESTION 31

Refer to the exhibits. 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 command is missing on the hub router.
- D. The ip nhrp shortcut command is missing on the hub router.
- E. The ip nhrp map command is missing on the hub router.

Correct Answer: BC

QUESTION 32

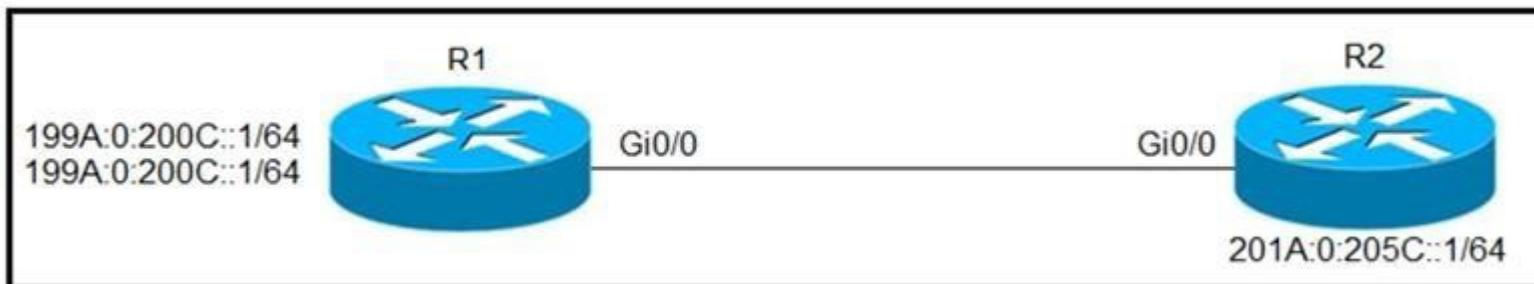
Which protocol is used to determine the NBMA address on the other end of a tunnel when mGRE is used?

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

Correct Answer: A

QUESTION 33

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

QUESTION 34

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

```
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
```

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

Correct Answer: A

QUESTION 35

Refer to the exhibit. 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?

```
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#
```

- 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

QUESTION 36

Refer to the exhibit. 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?

```
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#
```

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

Correct Answer: D

QUESTION 37

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

QUESTION 38

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

QUESTION 39

Refer to the exhibit. Why is user authentication being rejected?

```
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
```

- 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

QUESTION 40

Refer to the exhibit. 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?

```
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
```

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

Correct Answer: D

QUESTION 41

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

QUESTION 42

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: AB

QUESTION 43

Refer to the exhibit. 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?

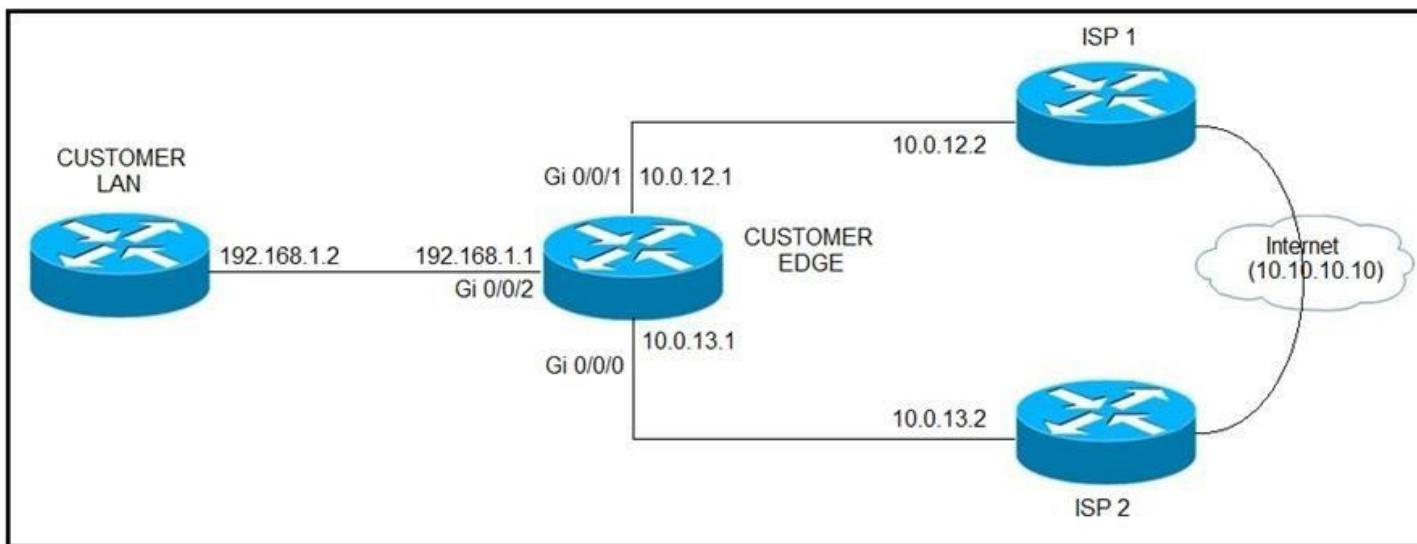
```
R1#show running-config | section dhcp
ip dhcp excluded-address 192.168.1.1 192.168.1.49
ip dhcp pool DHCP
  network 192.168.1.0 255.255.255.0
  default-router 192.168.1.1
  dns-server 8.8.8.8
  lease 0 12
```

- 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

QUESTION 44

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

QUESTION 45

Refer to the exhibit. 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?

```
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
```

- 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

QUESTION 46

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

QUESTION 47

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

QUESTION 48

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

QUESTION 49

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

QUESTION 50

Refer to the exhibit. 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?

```
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) #
```

- 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

QUESTION 51

Refer to the exhibit. 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.)

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

- 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: AB

QUESTION 52

Refer to the exhibit. Why is the remote NetFlow server failing to receive the NetFlow data?

```
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
!
```

- 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

QUESTION 53

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

QUESTION 54

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

Select and Place:

**permit ip 2001:d8b:800:200c::/117
2001:0DBB:800:2010::/64 eq 443**

**permit NTP from this source
2001:0DBB:0800:200C::1f**

**permit ip 2001:D88:800:200c::e/126
2001:0DBB:800:2010::/64 eq 514**

**permit syslog from this source
2001:0DBB:0800:200C::1c**

**permit ip 2001:d8b:800:200c::800/117
2001:0DBB:800:2010::/64 eq 80**

**permit HTTP from this source
2001:0DBB:0800:200C::0fff**

**permit ip 2001:D88:800:200c::e/126
2001:0DBB:800:2010::/64 eq 123**

**permit HTTPS from this source
2001:0DBB:0800:200C::07ff**

Correct Answer:

**permit ip 2001:D88:800:200c::e/126
2001:0DBB:800:2010::/64 eq 123**

**permit ip 2001:D88:800:200c::e/126
2001:0DBB:800:2010::/64 eq 514**

**permit ip 2001:d8b:800:200c::800/117
2001:0DBB:800:2010::/64 eq 80**

**permit ip 2001:d8b:800:200c::/117
2001:0DBB:800:2010::/64 eq 443**

QUESTION 55

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

Select and Place:

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

Correct Answer:

	P
	LSP
	CE
	PE

QUESTION 56

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

Select and Place:

Drag each definition on the left to the matching term on the right.

init	Each router compares the DBD packets that were received from the other router
2-way	Router 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:

Drag each definition on the left to the matching term on the right.

- | |
|----------|
| Exchange |
| 2-way |
| Loading |
| Exstart |
| init |
| Down |

QUESTION 5

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

Select and Place:

DHCPACK	server-to-client communication, refusing the request for configuration parameters
DHCPIINFORM	client-to-server communication, indicating that the network address is already in use
DCHPNAK	server-to-client communication with configuration parameters address, including committed network address
DCHPDECLINE	client-to-server communication, asking for only local configuration parameters that the client already has externally configured as an address.

Correct Answer:

	DCHPNAK
	DCHPDECLINE
	DHCPACK
	DHCPIINFORM

QUESTION 58

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

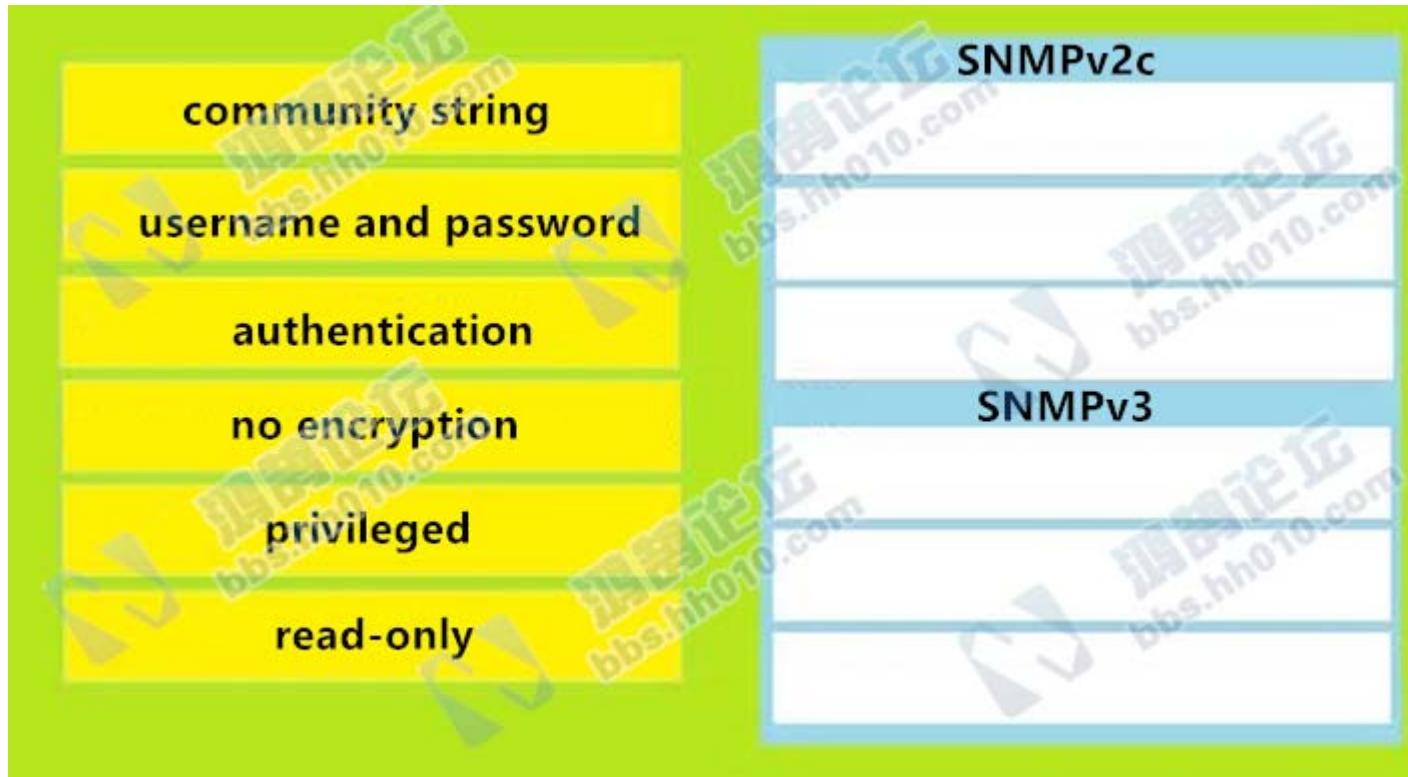
Correct Answer:

	data plane packets
	control plane packets
	management plane packets
	services plane packets

QUESTION 59

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:



Correct Answer:



QUESTION 60

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 10.222.10.1?

- 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 statement is higher than 200.

Correct Answer: D

QUESTION 61

Which security feature can protect DMVPN tunnels?

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

Correct Answer: A

QUESTION 62

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

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

Correct Answer: AC

QUESTION 63

Which protocol is used in a DMVPN network to map physical IP addresses to logical IP addresses?

- A. BGP
- B. LLDP
- C. EIGRP
- D. NHRP

Correct Answer: D

QUESTION 64

Which Cisco VPN technology can use multipoint tunnel, resulting in a single GRE tunnel interface on the hub, to support multiple connections from multiple spoke devices?

- A. DMVPN
- B. GETVPN
- C. Cisco Easy VPN
- D. FlexVPN

Correct Answer: A

QUESTION 65

Which option is the best for protecting CPU utilization on a device?

- A. fragmentation
- B. COPP
- C. ICMP redirects

D. ICMP unreachable messages

Correct Answer: B

QUESTION 66

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

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

Correct Answer: B

QUESTION 67

What is the role of a route distinguisher via a VRF-Lite setup implementation?

- A. It extends the IP address to identify which VRF instance it belongs to.
- B. It manages the import and export of routes between two or more VRF instances
- C. It enables multicast distribution for VRF-Lite setups to enhance EGP routing protocol capabilities
- D. It enables multicast distribution for VRF-Lite setups to enhance IGP routing protocol capabilities

Correct Answer: A

QUESTION 68

Refer to the following output:

Router#show ip nhrp detail

1.1.2/8 via 10.2.1.2, Tunnel1 created 00:00:12, expire 01:59:47 TypE. dynamic, Flags: authoritative unique nat registered used NBMA address:
10.12.1.2

What does the authoritative flag mean in regards to the NHRP information?

- A. It was obtained directly from the next-hop server.
- B. Data packets are processed switches for this mapping entry.
- C. NHRP mapping is for networks that are local to this router.
- D. The mapping entry was created in response to an NHRP registration request.
- E. The NHRP mapping entry cannot be overwritten

Correct Answer: A

QUESTION 69

Which two protocols can cause TCP starvation? (Choose two)

- A. TFTP
- B. SNMP
- C. SMTP
- D. HTTPS
- E. FTP

Correct Answer: AB

QUESTION 70

Which two statements about VRF-Lite configurations are true? (Choose two.)

- A. They support the exchange of MPLS labels
- B. Different customers can have overlapping IP addresses on different VPNs
- C. They support a maximum of 512.000 routes
- D. Each customer has its own dedicated TCAM resources
- E. Each customer has its own private routing table.
- F. They support IS-IS

Correct Answer: BE

QUESTION 71

A network engineer needs to verify IP SLA operations on an interface that shows an indication of excessive traffic. Which command should the engineer use to complete this action?

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

Correct Answer: B

QUESTION 72

Which protocol does VRF-Lite support?

- A. S-IS
- B. ODR
- C. EIGRP
- D. IGRP

Correct Answer: C

QUESTION 73

```
router ospf 10
  router-id 192.168.1.1
  log-adjacency-changes
  redistribute bgp 1 subnets route-map BGP-TO-OSPF
!
route-map BGP-TO-OSPF deny 10
  match ip address 50
route-map BGP-TO-OSPF permit 20
!
access-list 50 permit 172.16.1.0 0.0.0.255
```

Refer to Exhibit. Which statement about redistribution from BGP into OSPF process 10 is true?

- A. Network 172.16.1.0/24 is not redistributed into OSPF.
- B. Network 10.10.10.0/24 is not redistributed into OSPF
- C. Network 172.16.1.0/24 is redistributed with administrative distance of 1.
- D. Network 10.10.10.0/24 is redistributed with administrative distance of 20.

Correct Answer: A

QUESTION 74

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

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

- F. The redistributed EIGRP routes appear as OSPF external type 2 routes in the routing table

Correct Answer: BF

QUESTION 75

```
router eigrp 1

redistribute ospf 5 match external route-map OSPF-TO-EIGRP
metric 10000 2000 255 1 1500
route-map OSPF-TO-EIGRP
match ip address TO-OSPF
```

Refer to the exhibit.Which routes from OSPF process 5 are redistributed into EIGRP?

- A. E1 and E2 subnets matching access list TO-OSPF
- B. E1 and E2 subnets matching prefix list TO-OSPF
- C. only E2 subnets matching access list TO-OSPF
- D. only E1 subnets matching prefix listTO-OS1

Correct Answer: A

QUESTION 76

Users were moved from the local DHCP server to the remote corporate DHCP server. After the move, none of the users were able to use the network.Which two issues will prevent this setup from working properly? (Choose two)

- A. Auto-QoS is blocking DHCP traffic.
- B. The DHCP server IP address configuration is missing locally
- C. 802.1X is blocking DHCP traffic
- D. The broadcast domain is too large for proper DHCP propagation
- E. The route to the new DHCP server is missing

Correct Answer: BE

QUESTION 77

What is the output of the following command:
show ip vrf

- A. Show's default RD values
- B. Displays IP routing table information associated with a VRF
- C. Show's routing protocol information associated with a VRF.
- D. Displays the ARP table (static and dynamic entries) in the specified VRF

Correct Answer: A

QUESTION 78

Which command is used to check IP SLA when an interface is suspected to receive lots of traffic with options?

- A. show track
- B. show threshold
- C. show timer
- D. show delay

Correct Answer: A

QUESTION 79

Refer to the exhibit. AAA server 10.1.1.1 is configured with the default authentication and accounting settings, but the switch cannot communicate with the server. Which action resolves this issue?

```
Global RADIUS shared secret:*****
retransmission count: 5
timeout value: 10
following RADIUS servers are configured:
myradius.network.users.com:
    available for authentication on port: 1814
    available for accounting on port: 1813
10.1.1.1:
    available for authentication on port: 1814
    available for accounting on port: 1813
    RADIUS shared secret: *****
10.2.2.3
    available for authentication on port: 1814
    available for accounting on port: 1813
RADIUS shared secret: *****
```

- A. Correct the timeout value
- B. Match the authentication port
- C. Correct the shared secret
- D. Match the accounting port

Correct Answer: B

QUESTION 80

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

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

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

Correct Answer: D

QUESTION 81

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.

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

Select and Place:

Drag each definition on the left to the matching term on the right.

no password
Ocsic
no username
LetMeln
cisco
LetMeln

vty 0
username
password
vty 1
username
password

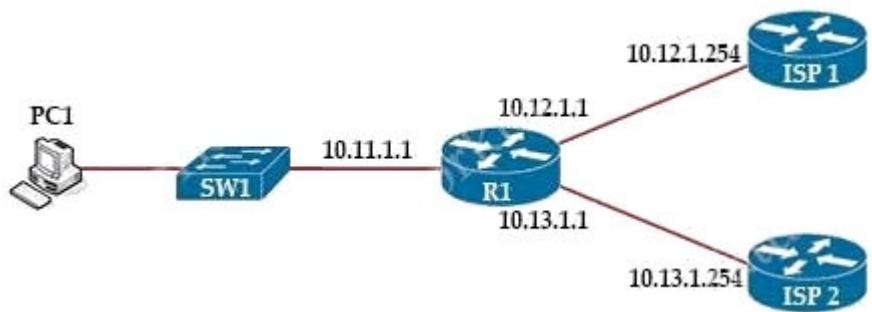
Correct Answer:

Drag each definition on the left to the matching term on the right.



QUESTION 82

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



```

R1
ip sla 100
  icmp-echo 10.12.1.254
!
track 10 ip sla 100 reachability
!
ip route 0.0.0.0 0.0.0.0 10.12.1.254 track 10
ip route 0.0.0.0 0.0.0.0 10.13.1.254 10
!
R1#show ip route
--Output Omitted--
Gateway of last resort is 10.13.1.254 to network 0.0.0.0

S*  0.0.0.0/0 [10/0] via 10.13.1.254
    10.0.0.0/8 is variably subnetted, 6 subnets, 2 masks
C      10.11.1.0/24 is directly connected, GigabitEthernet0/1
L      10.11.1.1/32 is directly connected, GigabitEthernet0/1
C      10.12.1.0/24 is directly connected, GigabitEthernet0/0
L      10.12.1.1/32 is directly connected, GigabitEthernet0/0
C      10.13.1.0/24 is directly connected, GigabitEtheraet0/2
L      10.13.1.1/32 is directly connected, GigabitEthernet0/2

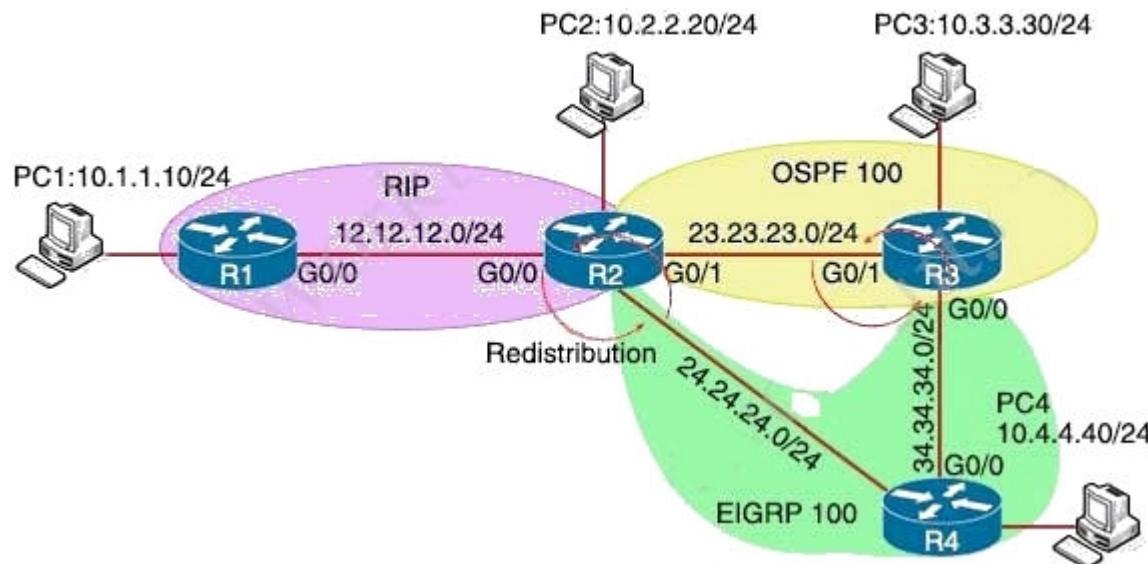
```

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

Correct Answer: C

QUESTION 83

Refer to the exhibit. Redistribution is enabled between the routing protocols, and now PC2, PC3, and PC4 cannot reach PC1. What are the two solutions to fix the problem? (Choose two)



- A. Filter RIP and OSPF routes back into OSPF from EIGRP when redistributing into OSPF in R2
- B. Filter all routes except EIGRP routes when redistributing into OSPF in R3
- C. Filter OSPF routes into RIP from EIGRP when redistributing into RIP in R2
- D. Filter all routes except RIP routes when redistributing into EIGRP in R2
- E. Filter RIP routes back into RIP when redistributing into RIP in R2

Correct Answer: CE

QUESTION 84

Which label operations are performed by a label edge router?

- A. PUSH and PHP
- B. SWAP and POP
- C. SWAP and PUSH
- D. PUSH and POP

Correct Answer: D

QUESTION 85

Refer to the exhibit. The network administrator configured VRF lite for customer A. The technician at the remote site misconfigured VRF on the router. Which configuration will resolve connectivity for both sites of customer A?

```
ip vrf customer_a
rd 1:1
route-target export 1:1
route-target import 1:1
!
interface FastEthernet0.1
encapsulation dot1Q 2
ip vrf forwarding customer_a
ip address 192.168.4.1 255.255.255.0
!
router ospf 1
log-adj adjacency-changes
!
router ospf 2 vrf customer_a
log-adj adjacency-changes
network 192.168.4.0 0.0.0.255 area 0
!
end
```

- A. ip vrf customer_a
rd 1:2
route-target both 1:1
- B. ip vrf customer_a
rd 1:2
route-target both 1:2
- C. ip vrf customer_a
rd 1:1
router-target import 1:1
router-target export 1:2
- D. ip vrf customer_a
rd 1:1
route-target export 1:2
router-target import 1:2

Correct Answer: A

QUESTION 86

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

Select and Place:

Drag each definition on the left to the matching term on the right.

Handles traffic between multiple VPNs

Reads the labels and forwards
the packet based on the labels

Assigns labels to unlabelled packets

Performs penultimate hop popping

Label Switch Router:

Label Edge Router:



Correct Answer:

Drag each definition on the left to the matching term on the right.



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 unlabelled packets

QUESTION 8

After some changes in the routing policy, it is noticed that the router in AS 45123 is being used as a transit AS router for several service providers. Which configuration ensures that the branch router in AS 45123 advertises only the local networks to all SP neighbors?

- A. ip as-path access-list 1 permit ^45123\$
!
router bgp 45123
neighbor SP-Neighbors filter-list 1 out
- B. ip as-path access-list 1 permit ^45123
!
router bgp 45123
neighbor SP-Neighbors filter-list 1 out
- C. ip as-path access-list 1 permit ^\$

```
!
router bgp 45123
neighbor SP-Neighbors filter-list 1 out
D. ip as-path access-list 1 permit
!
router bgp 45123
neighbor SP-Neighbors filter-list 1 out
```

Correct Answer: C

QUESTION 88

Refer to the exhibit. An engineer is trying to get a packet destined for 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?

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
```

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

Correct Answer: C

QUESTION 89

Refer to the exhibit. A junior engineer updated a branch router configuration. Immediately after the change, the engineer receives calls from the help desk that branch personnel cannot reach any network destinations. Which configuration restores service and continues to block 10.1.1.100/32?

```
BRANCH-RTR#
```

```
router eigrp 100
  network 10.4.31.0 0.0.0.7
  network 10.100.100.1 0.0.0.0
  distribute-list route-map FILTER-IN in FastEthernet0/0
  eigrp router-id 10.100.100.1
!
ip prefix-list 102 seq 10 permit 10.1.1.100/32
!
route-map FILTER-IN deny 10
  match ip address prefix-list 102
```

- A. ip prefix-list 102 seq 15 permit 0.0.0.0/32 le 32
- B. route-map FILTER-IN permit 20
- C. ip prefix-list 102 seq 5 permit 0.0.0.0/32 le 32
- D. route-map FILTER-IN deny 5

Correct Answer: B

QUESTION 90

An engineer configured a leak-map command to summarize EIGRP routes and advertise specifically loopback 0 with an IP of 10.1.1.1 255.255.255.252 along with the summary route. After finishing configuration, the customer complained not receiving summary route with specific loopback address.

Which two configurations will fix it? (Choose two)

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

- A. Configure route-map Leak-Route permit 10 and match access-list 1
- B. Configure access-list 1 permit 10.1.1.1 0.0.0.252
- C. Configure access-list 1 and match under route-map Leak-Route
- D. Configure route-map Leak-Route permit 20
- E. Configure access-list 1 permit 10.1.1.0 0.0.0.3

Correct Answer: AE

QUESTION 91

Refer to the exhibit. An IP SLA is configured to use the backup default route when the primary is down, but it is not working as desired. Which command fixes the issue?

```
R1(config)#ip route 0.0.0.0 0.0.0.0 1.1.1.1
R1(config)#ip route 0.0.0.0 0.0.0.0 2.2.2.2 10
R1(config)#ip sla 1
R1(config)#icmp-echo 1.1.1.1 source-interface FastEthernet0/0
R1(config)#ip sla schedule 1 life forever start-time now
R1(config)#track 1 ip sla 1 reachability
```

- A. R1(config)# ip route 0.0.0.0 0.0.0.0 1.1.1.1 track 1
- B. R1 (config)# ip route 0.0.0 0 0.0.0 2.2.2.2
- C. R1 (config)# ip route 0.0.0 0 0.0.0 2.2.2.2 10 track 1
- D. R1(config)# ip sla track 1

Correct Answer: A

QUESTION 92

What is an advantage of using BFD

- A. It detects local link failure at layer 1 and updates routing table
- B. It detects local link failure at layer 3 and updates routing protocols
- C. It has sub-second failure detection for layer 1 and layer 2 problems
- D. It has sub-second failure detection for layer 1 and layer 3 problems

Correct Answer: D

QUESTION 93

Refer to the exhibit. The ACL is placed on the inbound GigabitEthernet 0/1 interface of the router. Host 192.168.10.10 cannot SSH to host 192.168.100.1 even though the flow is permitted. Which action resolves the issue without opening full access to this router?

```
ip access-list extended FILTER
deny tcp 192.168.10.0 0.0.0.255 192.168.100.0 0.0.0.255 eq 22
deny tcp 192.168.10.0 0.0.0.255 192.168.100.0 0.0.0.255 eq 23
deny tcp 192.168.10.0 0.0.0.255 192.168.100.0 0.0.0.255 eq 80
deny tcp 192.168.10.0 0.0.0.255 192.168.100.0 0.0.0.255 eq 443
permit tcp host 192.168.10.10 host 192.168.100.10 eq ssh
permit ip any any
```

!

```
interface GigabitEthernet0/1
```

```
ip address 192.168.10.1 255.255.255.0
ip access-group FILTER in
```

- A. Temporarily move the permit ip any any line to the beginning of the ACL to see if it the flow works
- B. Run the show access-list FILTER command to view if the SSH entry has any hit statistics associated with it
- C. Move the SSH entry to the beginning of the ACL
- D. Temporarily remove the ACL from the interface to see if the flow works

Correct Answer: C

QUESTION 94

Which component of MPLS VPN is used to extend the IP address so that an engineer is able to identify to which VPN it belongs?

- A. RD
- B. VPNv4 address family
- C. RT
- D. LDP

Correct Answer: A

QUESTION 95

Refer to the exhibit. BGP is flapping after the CoPP policy is applied. What are the two solutions to fix the issue? (Choose two)

```
policy-mapp COPP-7600
class COPP-CRITICAL-7600
police cir 2000000 bc 62500
conform-action transmit
exceed-action transmit
!
```

```
class class-default
police cir 2000000 bc 6250
conform-action transmit
exceed-action drop
!
class-map match-all COPP-CRITICAL-7600
match access-group name COPP-CRITICAL-7600
!
ip access-list extended COPP-CRITICAL-7600
permit ip any any eq http
permit ip any any eq https
```

- A. Configure BGP in the COPP-CRITICAL-7600 ACL
- B. Configure a higher value for CIR under the default class to allow more packets during peak traffic
- C. Configure a higher value for CIR under the class COPP-CRITICAL-7600
- D. Configure a three-color policer instead of two-color policer under class COPP-CRITICAL
- E. Configure IP CEF to CoPP policy and BGP to work

Correct Answer: AB

QUESTION 96

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

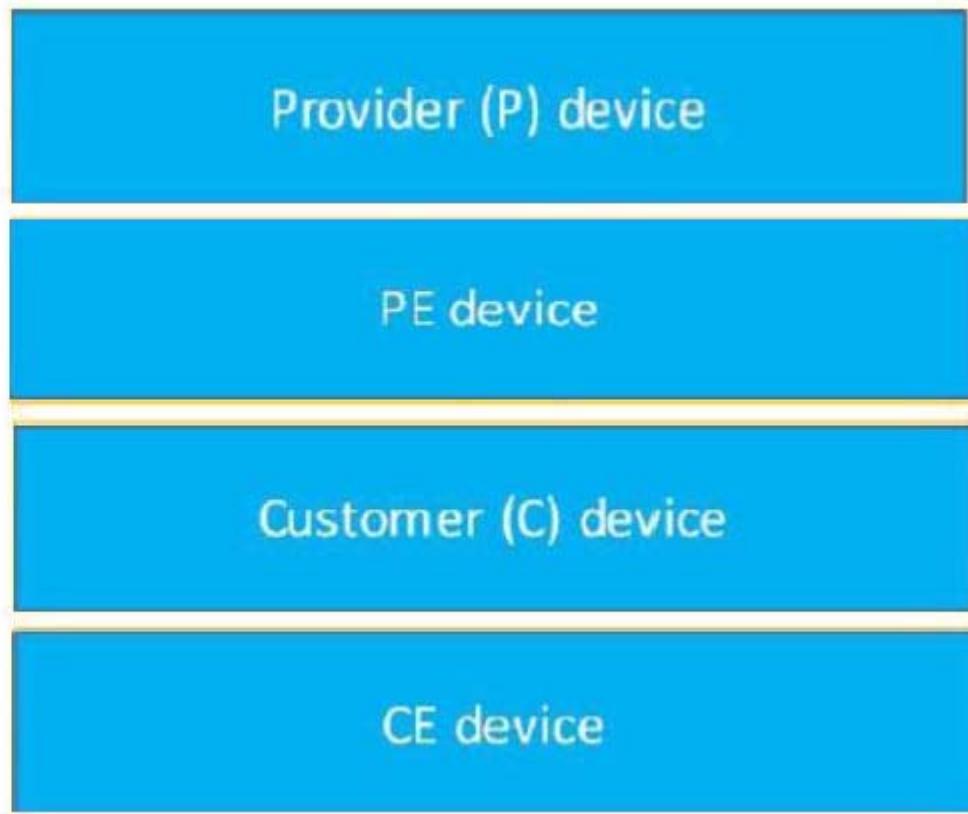
PE device

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:



QUESTION 97

```

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

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

```

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

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

Correct Answer: A

QUESTION 98

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

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

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

Correct Answer: A

QUESTION 99

```
R1#show policy-map control-plane
Control Plane
  Service-policy output: CoPP
    Class-map: SNMP-Out (match-all)
      124 packets, 3693 bytes
      5 minute offered rate 0000 bps, drop rate 0000 bps
      Match: access-group name SNMP
      police:
        cir 8000 bps, bc 1500 bytes
        conformed 0 packets, 0 bytes; actions:
          transmit
        exceeded 0 packets, 0 bytes; actions:
          drop
        conformed 0000 bps, exceeded 0000 bps
    Class-map: class-default (match-any)
      10 packets, 1003 bytes
      5 minute offered rate 0000 bps, drop rate 0000 bps
      Match: any
R1#show ip access-list SNMP
Extended IP access list SNMP
  10 permit udp any eq snmp any
```

Refer to the exhibit. R1 is being monitored using SNMP and monitoring devices are getting only partial information. What action should be taken to resolve this issue?

- A. Modify the CoPP policy to increase the configured exceeded limit for SNMP
- B. Modify the access list to include snmptrap.
- C. Modify the CoPP policy to increase the configured CIR limit for SNMP
- D. Modify the access list to add a second line to allow udp any any eg snmp

Correct Answer: B

QUESTION 100

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

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

- A. Configure the server to use DHCP on the network with default gateway 200.30.40.100.
- B. Configure the server with a static IP address and default gateway
- C. Configure the router to exclude a server IP address
- D. Configure the server to use DHCP on the network with default gateway 200.30.30.100.
- E. Configure the router to exclude a server IP address and default gateway.

Correct Answer: BE

QUESTION 101

What does IPv6 Source Guard utilize to determine if IPv6 source addresses should be forwarded?

- A. ACLs
- B. Binding Table
- C. ACE
- D. DHCP

Correct Answer: B

QUESTION 102

During the maintenance window, an administrator accidentally deleted the Telnet-related configuration that permits a Telnet connection from the inside network

(Eth0/0) to the outside of the network between Friday - Sunday night hours only.
Which configuration resolves the issue?

- A. interface Ethernet0/0
ip address 10.1.1.1 255.255.255.0
ip access-group 101 in
!
access-list 101 permit tcp 10.1.1.0 0.0.0.255 172.16.1.0 0.0.0.255 eq telnet time-range changewindow
!
time-range changewindow
periodic 22:00 to 05:00
- B. interface Ethernet0/0
ip address 10.1.1.1 255.255.255.0
ip access-group 101 in
!
access-list 101 permit tcp 10.1.1.0 0.0.0.255 172.16.1.0 0.0.0.255 eq telnet time-range changewindow
!
time-range changewindow
periodic Friday Saturday Sunday 22:00 to 05:00
- C. interface Ethernet0/0
ip address 10.1.1.1 255.255.255.0
ip access-group 101 in
!
access-list 101 permit udp 10.1.1.0 0.0.0.255 172.16.1.0 0.0.0.255 eq telnet time-range changewindow
!
time-range changewindow
periodic Friday Saturday Sunday
- D. interface Ethernet0/0
ip address 10.1.1.1 255.255.255.0
ip access-group 101 in
!
access-list 101 permit udp 10.1.1.0 0.0.0.255 172.16.1.0 0.0.0.255 eq telnet time-range changewindow
!
time-range changewindow
periodic Friday Saturday Sunday 22:00 to 05:00

Correct Answer: B

QUESTION 103

R1

```
ip prefix-list ccnp1 seq 5 permit 10.1.48.0/24 le 24
ip prefix-list ccnp2 seq 5 permit 10.1.80.0/24 le 32
ip prefix-list ccnp3 seq 5 permit 10.1.64.0/24 le 24

route-map ospf-to-eigrp permit 10
  match ip address prefix-list ccnp1
  set tag 30
route-map ospf-to-eigrp permit 20
  match ip address prefix-list ccnp2
  set tag 20
route-map ospf-to-eigrp permit 30
  match ip address prefix-list ccnp3
  set tag 10
```

Refer to the exhibit. An engineer wanted to set a tag of 30 to route 10.1.80.65/32 but it failed. How is the issue fixed?

- A. Modify route-map ospf-to-eigrp permit10 and match prefix-list ccnp2
- B. Modify prefix-list ccnp3 to add 10.1.64.0/20 ge 32
- C. Modify prefix-list ccnp3 to add 10.1.64.0/20 le 24
- D. Modify route-map ospf-to-eigrp permit 30 and match prefix-list ccnp2.

Correct Answer: A

QUESTION 104

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

Service-policy output: R3_CoPP

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

Class-map: class-default (match-any)
 124 packets, 10635 bytes
 5 minute offered rate 0 bps, drop rate 0 bps
 Match: any

R3#show access-lists 120
Extended IP access list 120
 10 permit udp any any eq snmptrap (361 matches)
```

Refer to the exhibit. Which action resolves intermittent connectivity observed with the SNMP trap packets?

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

Correct Answer: B

QUESTION 105

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

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

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

Correct Answer: A

QUESTION 106

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

Refer to the exhibit. A network administrator configured an IPv6 access list to allow TCP return traffic only, but it is not working as expected. What changes resolve this issue?

- A.

```
ipv6 access-list inbound
permit tcp any any syn
deny ipv6 any any log
!
interface gi0/0
ipv6 traffic-filter inbound in
```
- B.

```
ipv6 access-list inbound
permit tcp any any established
deny ipv6 any any log
```

!

interface gi0/0

ipv6 traffic-filter inbound out

C. ipv6 access-list inbound

permit tcp any any established

deny ipv6 any any log

!

interface gi0/0

ipv6 traffic-filter inbound in

D. ipv6 access-list inbound

permit tcp any any syn

deny ipv6 any any log

!

interface gi0/0

ipv6 traffic-filter inbound out

Correct Answer: C

QUESTION 107

```
R1#show run | begin line
line con 0
exec-timeout 0 0
privilege level 15
logging synchronous
transport preferred telnet
transport output none
stopbits 0 4
line vty 0 4
login
transport preferred telnet
transport input none
transport output telnet
R1#
R1#ssh -l cisco 192.168.12.2
% ssh connections not permitted from this terminal
R1#
```

Refer to the exhibit. An engineer receives this error message when trying to access another router in-band from the serial interface connected to the console of

R1. Which configuration is needed on R1 to resolve this issue?

- A. R1(config)#line console 0
R1(config-line)# transport preferred ssh
- B. R1(config)#line vty 0
R1(config-line)# transport output ssh
- C. R1(config)#line vty 0
R1 (confia-line)# transport output ssh
R1(config-line)# transport preferred ssh
- D. R1(confia)#line console 0
R1(config-line) transport output ssh

Correct Answer: D

QUESTION 108

An engineer configured a company's multiple area OSPF Head Office router and Site A Cisco routers with VRF lite. Each site router is connected to a PE router of an MPLS backbone:

```
Head Office & Site A
ip cef
ip vrf abc
rd 101:101
!
interface FastEthernet0/0
ip vrf forwarding abc
ip address 172.16.16.X 255.255.255.252
!
router ospf 1 vrf abc
log-adjacency-changes
network 172.16.16.0 0.0.0.255 area 1
```

After finishing both site router configurations, none of the LSA 3, 4, 5, and 7 are installed at Site A router. Which configuration resolves this issue?

- A. configure capability vrf-lite on Head Office and its connected PE router under router ospf 1 vrf abc
- B. configure capability vrf-lite on both PE routers connected to Head Office and Site A routers under router ospf 1 vrf abc.
- C. configure capability vrf-lite on Site A and its connected PE router under router ospf 1 vrf abc
- D. configure capability vrf-lite on Head Office and Site A routers under router ospf 1 vrf abc

Correct Answer: D

QUESTION 109

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

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

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

Correct Answer: C

QUESTION 110

```
R1(config)# ip route 0.0.0.0 0.0.0.0 1.1.1.1
R1(config)# ip route 0.0.0.0 0.0.0.0 2.2.2.2 10
R1(config)# ip sla 1
R1(config)# icmp-echo 1.1.1.1 source-interface FastEthernet0/0
R1(config)# ip sla schedule 1 life forever start-time now

R1(config)# track 1 ip sla 1 reachability
```

Refer to the exhibit. An IP SLA is configured to use the backup default route when the primary is down, but it is not working as desired. Which command fixes the issue?

- A. R1(config)# ip route 0.0.0.0 0.0.0.0 2.2.2.2 10 track 1
- B. R1(config)# ip route 0.0.0.0 0.0.0.0 2.2.2.2
- C. R1(config)#ip sla track 1
- D. R1(config)# ip route 0.0.0.0 0.0.0.0 1.1.1.1 track 1

Correct Answer: D

QUESTION 111



```

R1
router eigrp 1
redistribute connected
network 10.1.12.1 0.0.0.0
default-metric 1000000 10 255 1 1500

R3
router eigrp 1
network 10.1.23.3 0.0.0.0
!
router ospf 1
redistribute eigrp 1 subnets
network 10.1.35.3 0.0.0.0 area 0

```

Refer to the exhibit. To provide reachability to network 10.1.1.0 /24 from R5, the network administrator redistributes EIGRP into OSPF on R3 but notices that R4 is now taking a suboptimal path through R5 to reach 10.1.1.0 /24 network. Which action fixes the issue while keeping the reachability from R5 to 10.1.1.0/24 network?

- A. Change the administrative distance of the external EIGRP to 90
- B. Apply the outbound distribution list on R5 toward R4 in OSPF.
- C. Change the administrative distance of OSPF to 200 on R5
- D. Redistribute OSPF into EIGRP on R4

Correct Answer: A

QUESTION 112

What does the PE router convert the IPv4 prefix to within an MPLS VPN?

- A. VPN-IPv4 prefix combined with the 64-bit route distinguisher

- B. 48-bit route combining the IP and PE router-id
- C. prefix that combines the ASN, PE router-id, and IP prefix
- D. eBGP path association between the PE and CE sessions

Correct Answer: A

QUESTION 113

Which IGPs are supported by the MPLS LDP autoconfiguration feature?

- A. ISIS and RIPv2
- B. RIPv2 and OSPF
- C. OSPF and EIGRP
- D. OSPF and ISIS

Correct Answer: D

QUESTION 114

An engineer configured a leak-map command to summarize EIGRP routes and advertise specifically loopback 0 with an IP of 10.1.1.1 255.255.255.252 along with the summary route. After finishing configuration, the customer complained about not receiving the summary route with the specific loopback address. Which two configurations will fix this issue? (Choose two.)

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

- A. Configure access-list 1 permit 10.1.1.0 0.0.0.3.
- B. Configure access-list 1 permit 10.1.1.1 0.0.0.252.
- C. Configure access-list 1 and match under route-map Leak-Route.
- D. Configure route-map Leak-Route permit 10 and match access-list 1.
- E. Configure route-map Leak-Route permit 20.

Correct Answer: AD

QUESTION 115

```

Spoke# show dmvpn
Tunnel0, Type:Spoke, NHRP Peers:2,
# Ent Peer NBMA Addr Peer Tunnel Add State UpDn Tm Attrb
-----  

1 172.18.16.2 192.168.1.1 UP 01:05:35 S  

1 172.18.46.2 192.168.1.4 UP 00:00:25 D

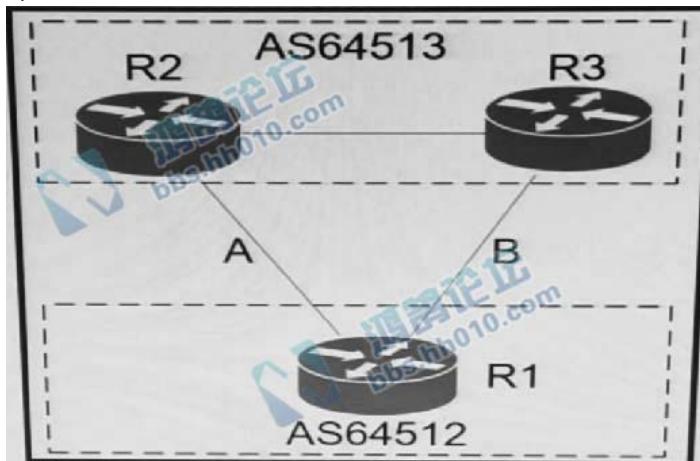
```

Refer to the exhibit. An engineer has configured DMVPN on a spoke router. What is the WAN IP address of another spoke router within the DMVF network?

- A. 192.168.1.1
- B. 172.18.46.2
- C. 172.18.16.2
- D. 192.168.1.4

Correct Answer: B

QUESTION 116



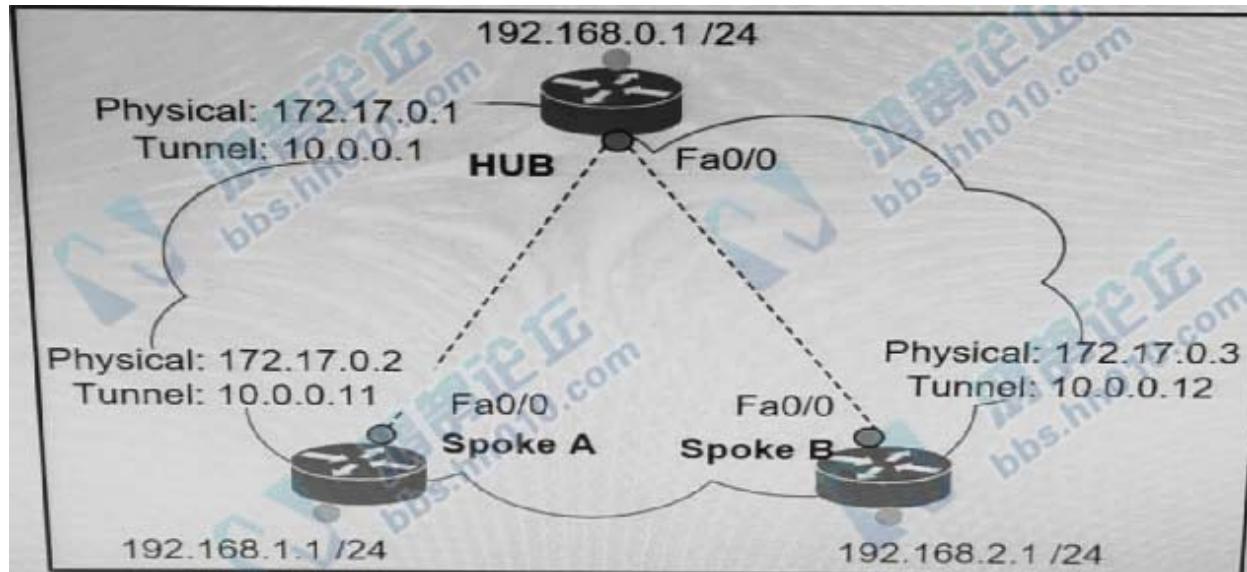
Refer to the exhibit. A network engineer for AS64512 must remove the inbound and outbound traffic from link A during maintenance without closing the BGP session so that there is still a backup link over link A toward the ASN. Which BGP configuration on R1 accomplishes this goal?

- A. route-map link-a-in permit 10
set weight 200
route-map link-a-out permit 10
set as-path prepend 64512
route-map link-b-in permit 10

- ```
set weight 100
route-map link-b-out permit 10
```
- B. route-map link-a-in permit 10  
set local-preference 200  
route-map link-a-out permit 10  
route-map link-b-in permit 10  
route-map link-b-out permit 10  
set as-path prepend 64512
- C. route-map link-a-in permit 10  
route-map link-a-out permit 10  
set as-path prepend 64512  
route-map link-b-in permit 10  
set local-preference 200  
route-map link-b-out permit 10
- D. route-map link-a-in permit 10  
set weight 200  
route-map link-a-out permit 10  
route-map link-b-in permit 10  
set weight 100  
route-map link-b-out permit 10  
set as-path prepend 64512

**Correct Answer: C**

**QUESTION 117**



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

- A. 

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

```
interface Tunnel0
description mGRE – DMVPN Tunnel
ip address 10.0.0.1 255.255.255.0
ip nhrp map multicast dynamic
ip nhrp network-id 1
tunnel source 10.0.0.1
tunnel mode gre multipoint
```
- C. 

```
interface Tunnel0
description mGRE – DMVPN Tunnel
ip address 10.0.0.1 255.255.255.0
ip nhrp network-id 1
```

```
tunnel source 172.17.0.1
tunnel mode gre multipoint
D. interface Tunnel0
description mGRE – DMVPN Tunnel
ip address 10.0.0.1 255.255.255.0
ip nhrp map multicast dynamic
ip nhrp network-id 1
tunnel source 10.0.0.1
tunnel destination 172.17.0.2
tunnel mode gre multipoint
```

**Correct Answer:** C

**QUESTION 118**

An engineer is configuring a network and needs packets to be forwarded to an interface for any destination address that is not in the routing table. What should be configured to accomplish this task?

- A. set ip next-hop
- B. set ip default next-hop
- C. set ip next-hop recursive
- D. set ip next-hop verify-availability

**Correct Answer:** B

**QUESTION 119**

Which protocol does MPLS use to support traffic engineering?

- A. Resource Reservation Protocol
- B. Label Distribution Protocol
- C. Border Gateway Protocol
- D. Tag Distribution Protocol

**Correct Answer:** A

**QUESTION 120**

```
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, deny, 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#
```

Refer to the exhibit. Which two actions should be taken to access the server? (Choose two.)

- A. Modify the access list to add a second line of permit ip any.
- B. Modify the access list to deny the route to 192.168.2.2
- C. Modify distribute list seq 10 to permit the route to 192.168.2.2
- D. Add a sequence 20 in the route map to permit access list 1
- E. Add a floating static route to reach to 192.168.2.2 with administrative distance higher than OSPF

**Correct Answer:** CE

#### **QUESTION 121**

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

- A. match the passwords
- B. match the hello timers

- C. match the MTUs
- D. match the network types

**Correct Answer:** C

**QUESTION 122**

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 |

### QUESTION 123

An engineer configured access list NON-CISCO in a policy to influence routes.

route-map PBR, deny, sequence 5

Match clauses:

ip address (access-list): NON-CISCO

Set clauses:

Policy routing matches: 0 packets, 0 bytes

route-map PBR, permit, sequence 10

Match clauses:

Set clauses:

ip next-hop 192.168.1.5

Policy routing matches: 388888023 packets, 222229775077 bytes

What are the two effects of this route map configuration? (Choose two.)

- A. Packets are forwarded to the default gateway
- B. Packets are dropped by the access list
- C. Packets are not evaluated by sequence 10

- D. Packets are evaluated by sequence 10
- E. Packets are forwarded using normal route lookup.

**Correct Answer:** AD

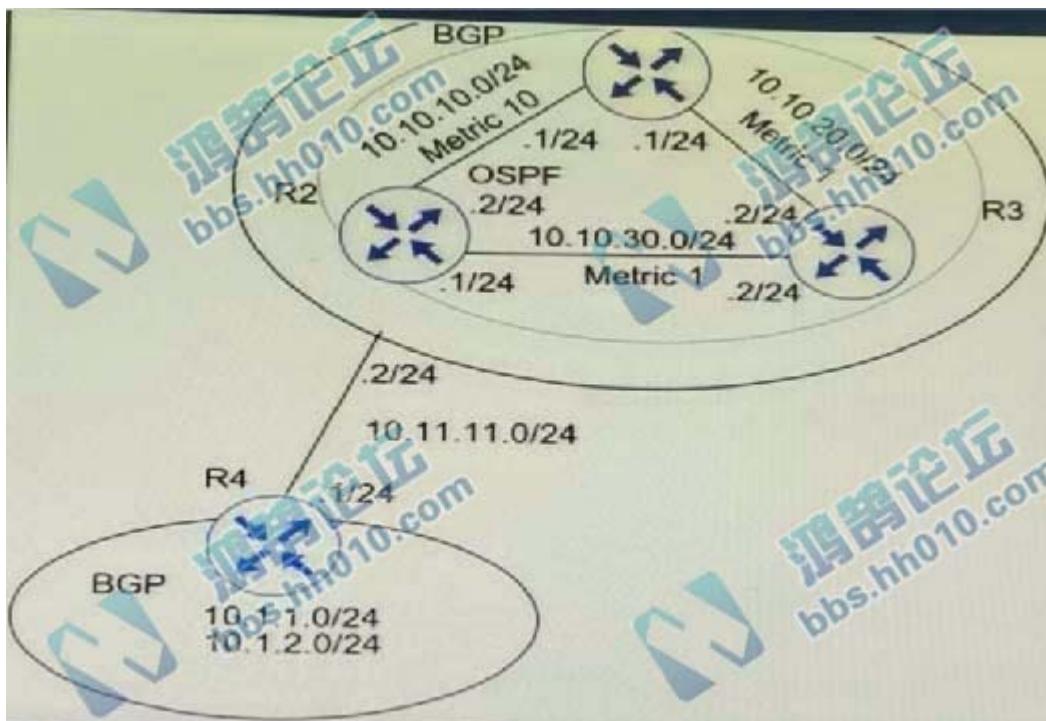
**QUESTION 124**

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

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

**Correct Answer:** BC

**QUESTION 125**



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

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

**Correct Answer:** B

#### QUESTION 126

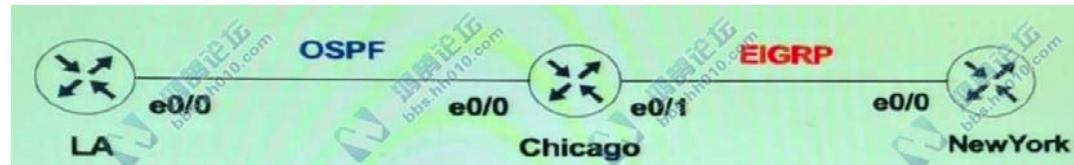
How are MPLS Layer 3 VPN services deployed?

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

- D. The RD and RT values under a VRF must match on the remote PE router

**Correct Answer:** B

**QUESTION 127**



Refer to the exhibit. The network administrator must mutually redistribute routes at the Chicago router to the LA and NewYork routers. The configuration of the Chicago router is this:

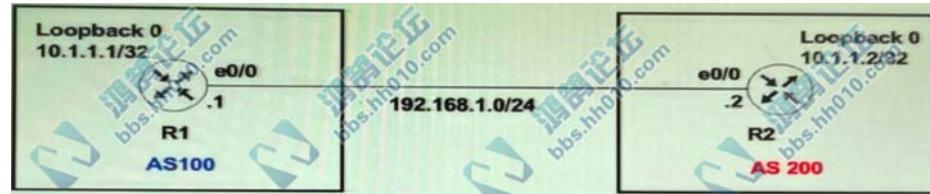
```
router ospf 1
redistribute eigrp 100
router eigrp 100
redistribute ospf 1
```

After the configuration, the LA router receives all the NewYork routes, but NewYork router does not receive any LA routes. Which set of configurations fixes the problem on the Chicago router?

- A. router eigrp 100  
redistribute ospf 1 metric 10 10 10 10 10
- B. router eigrp 100  
redistribute ospf 1 subnets
- C. router ospf 1  
redistribute eigrp 100 subnets
- D. router ospf 1  
redistribute eigrp 100 metric 20

**Correct Answer:** A

**QUESTION 128**



Refer to the exhibit. The R1 and R2 configurations are:

**R1**

```
router bgp 100
neighbor 10.1.1.2 remote-as 200
```

**R2**

```
router bgp 200
neighbor 10.1.1.1 remote-as 100
```

The neighbor relationship is not coming up. Which two sets of configurations bring the neighbors up? (Choose two.)

A. R2

```
ip route 10.1.1.1 255.255.255.255 192.168.1.1
!
router bgp 200
neighbor 10.1.1.1 ttl-security hops 1
neighbor 10.1.1.1 update-source loopback 0
```

B. R2

```
ip route 10.1.1.1 255.255.255.255 192.168.1.1
!
router bgp 200
neighbor 10.1.1.1 disable-connected-check
neighbor 10.1.1.1 update-source loopback 0
```

C. R2

```
ip route 10.1.1.2 255.255.255.255 192.168.1.2
!
router bgp 100
neighbor 10.1.1.2 ttl-security hops 1
neighbor 10.1.1.2 update-source loopback 0
```

D. R1

```
ip route 10.1.1.2 255.255.255.255 192.168.1.2
!
router bgp 100
neighbor 10.1.1.1 ttl-security hops 1
neighbor 10.1.1.2 update-source loopback 0
```

E. R1

```
ip route 10.1.1.2 255.255.255.255 192.168.1.2
!
router bgp 100
neighbor 10.1.1.2 disable-connected-check
neighbor 10.1.1.2 update-source Loopback0
```

**Correct Answer:** BE

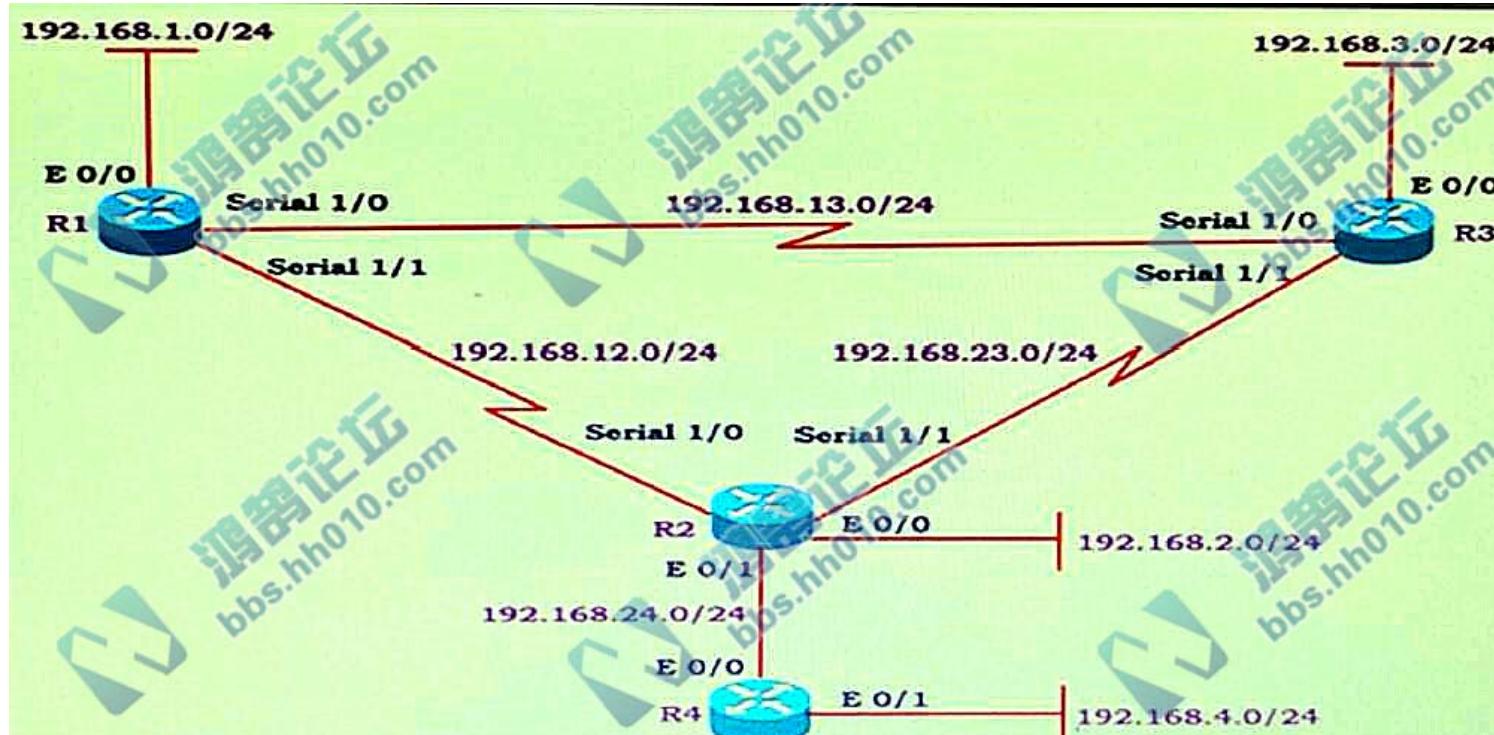
### QUESTION 129

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

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

Correct Answer: D

### QUESTION 130



#R1 show ip route

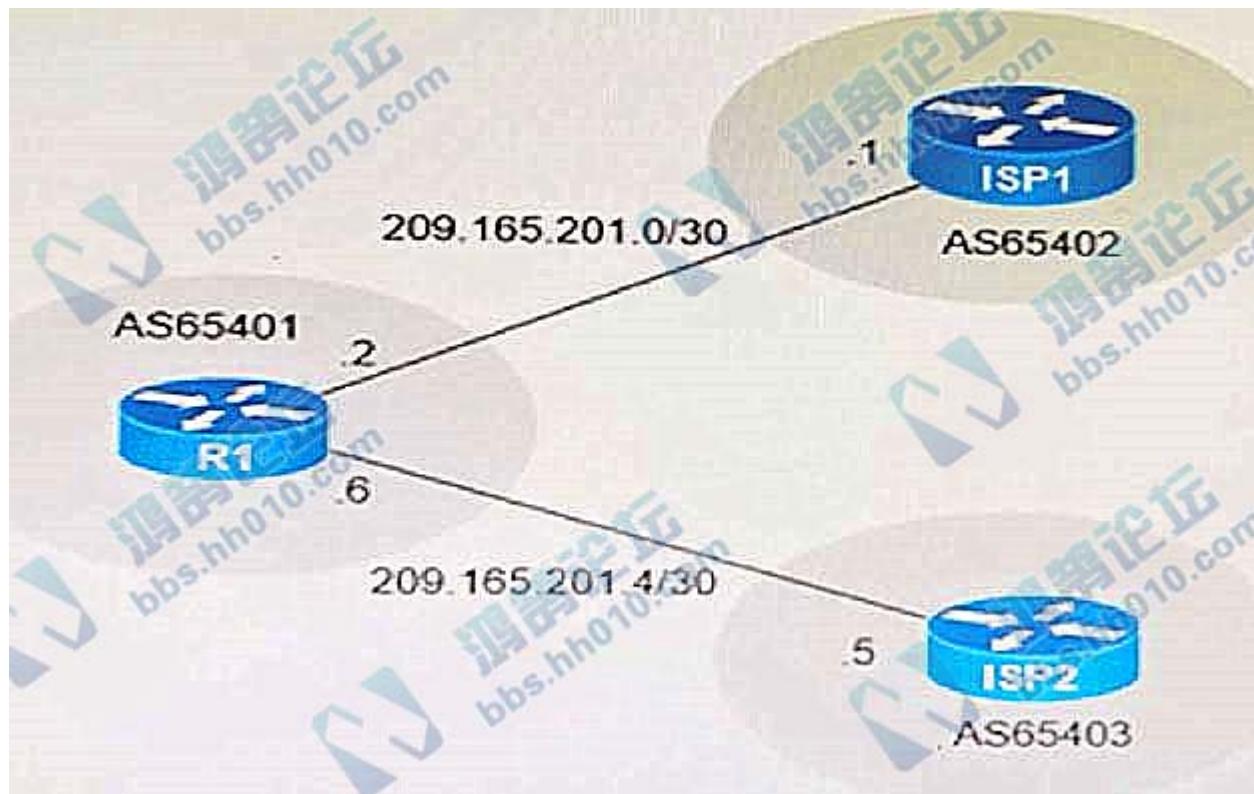
```
192.168.1.0/24 is variably subnetted, 2 subnets, 2 masks
C 192.168.1.0/24 is directly connected, Ethernet0/0
L 192.168.1.1/32 is directly connected, Ethernet0/0
D 192.168.2.0/24 [90/2297856] via 192.168.12.2, 00:02:14, Serial1/1
S 192.168.3.0/24 [1/0] via 192.168.12.2
 192.168.12.0/24 is variably subnetted, 2 subnets, 2 masks
C 192.168.12.0/24 is directly connected, Serial1/1
L 192.168.12.1/32 is directly connected, Serial1/1
 192.168.13.0/24 is variably subnetted, 2 subnets, 2 masks
C 192.168.13.0/24 is directly connected, Serial1/0
L 192.168.13.1/32 is directly connected, Serial1/0
D 192.168.23.0/24 [90/2681856] via 192.168.13.3, 00:06:38, Serial1/0
 [90/2681856] via 192.168.12.2, 00:06:38, Serial1/1
D 192.168.24.0/24 [90/2195456] via 192.168.12.2, 00:06:38, Serial1/1
```

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

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

**Correct Answer:** D

**QUESTION 131**



```
R1#
```

```
interface GigabitEthernet0/0
 ip address 209.165.201.2 255.255.255.252
!
interface GigabitEthernet0/1
 ip address 209.165.201.6 255.255.255.252
!
router bgp 65401
 bgp log-neighbor-changes
 redistribute static
 neighbor 209.165.201.1 remote-as 65402
 neighbor 209.165.201.5 remote-as 65403
!
ip route 209.165.200.224 255.255.255.224 Null0
ip route 209.165.202.128 255.255.255.224 Null0
!
```

Refer to the exhibits. A company with autonomous system number AS65401 has obtained IP address block 209.165.200.224/27 from ARIN. The company needed more IP addresses and was assigned block 209.165.202.128/27 from ISP2. An engineer in ISP1 reports that they are receiving ISP2 routes from AS65401. Which configuration on R1 resolves the issue?

- A. access-list 10 deny 209.165.202.128 0.0.0.31  
access-list 10 permit any  
!  
router bgp 65401  
neighbor 209.165.201.1 distribute-list 10 out
- B. access-list 10 deny 209.165.202.128 0.0.0.31  
access-list 10 permit any  
!  
router bgp 65401

- neighbor 209.165.201.1 distribute-list 10 in
- C. ip route 209.165.200.224 255.255.255.224 209.165.201.1  
ip route 209.165.202.128 255.255.255.224 209.165.201.5
- D. ip route 0.0.0.0 0.0.0.0 209.165.201.1  
ip route 0.0.0.0 0.0.0.0 100 209.165.201.5

**Correct Answer:** A

### QUESTION 132

The screenshot shows a network monitoring interface with the following sections:

- Layer 2 loop symptoms:** A summary table with the following data:

| Priority | Issue Type            | Device Role  | Category     | Issue Count | Site Count (Area) | Device Count |
|----------|-----------------------|--------------|--------------|-------------|-------------------|--------------|
| P2       | Layer 2 loop symptoms | DISTRIBUTION | Connectivity | 46          | 1                 | 2            |
- Open Issues:** 2 issues listed:
  - Host loops observed in 1 VLAN(s) (Site: USA/SF, Device: SF-D9300-1, Type: Cisco Catalyst 9300 Switch, Count: 24)
  - Host loops observed in 1 VLAN(s) (Site: USA/SF, Device: SF-D9300-2, Type: Cisco Catalyst 9300 Switch, Count: 24)
- Potential Loop Details:** A table showing potential loops across four devices:

| Device     | Role         | Port in loop          | Duplex | VLAN in loop |
|------------|--------------|-----------------------|--------|--------------|
| SF-D9300-1 | DISTRIBUTION | GigabitEthernet1/0/13 | Full   | 50-53        |
| SF-D9300-2 | DISTRIBUTION | GigabitEthernet1/0/13 | Full   | 50-53        |
| SF-D9300-1 | DISTRIBUTION | GigabitEthernet1/0/23 | Full   | 50-53        |
| SF-A3850-1 | ACCESS       | GigabitEthernet1/0/23 | Full   | 50-53        |

|            |              |                       |      |       |
|------------|--------------|-----------------------|------|-------|
| SF-D9300-1 | DISTRIBUTION | GigabitEthernet1/0/13 | Full | 30-33 |
| SF-D9300-2 | DISTRIBUTION | GigabitEthernet1/0/13 | Full | 30-33 |
| SF-D9300-1 | DISTRIBUTION | GigabitEthernet1/0/23 | Full | 30-33 |
| SF-A3850-1 | ACCESS       | GigabitEthernet1/0/23 | Full | 30-33 |

```

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

```

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

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

**Correct Answer:** D

**QUESTION 133**

```
R1#show policy-map control-plane
```

#### Control Plane

Service-policy input: CoPP

Class-map PERMIT (match-all)

50 packets, 3811 bytes

5 minute offered rate 0000 bps

Match: access-group 100

Class-map ANY (match-all)

210 packets, 19104 bytes

5 minute offered rate 0000 bps, drop rate 0000 bps

Match: access-group 199

drop

Class-map class-default (match-any)

348 packets, 48203 bytes

5 minute offered rate 0000 bps, drop rate 0000 bps

Match: any

```
R1#show access-list 100
```

Extended IP access list 100

10 permit udp any any eq 23 (100 matches)

20 permit tcp any any eq telnet (5 matches)

30 permit tcp any eq telnet any (10 matches)

```
R1#show access-list 199
```

Extended IP access list 199

10 deny tcp any eq telnet any (50 matches)

50 permit ip any any (1 match)

```
R1#show running-config | section line vty
```

line vty 0 4

login

transport input telnet ssh

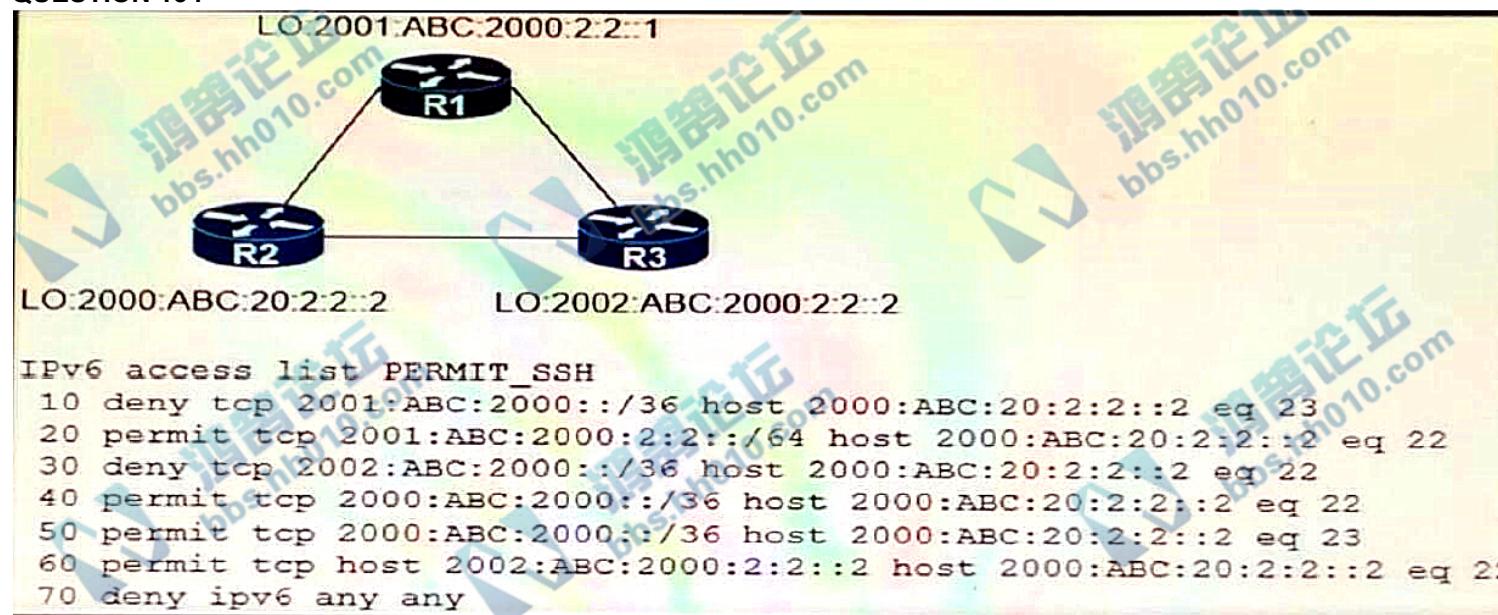
transport output telnet ssh

Refer to the exhibit. Which two actions restrict access to router R1 by SSH? (Choose two.)

- A. Remove class-map ANY from service-policy CoPP
- B. Configure transport output ssh on line vty and remove sequence 10 from access list 199
- C. Configure transport output ssh on line vty and remove sequence 20 from access list 100
- D. Remove sequence 10 from access list 100 and add sequence 20 deny tcp any any eq telnet to access list 199
- E. Configure transport input ssh on line vty and remove sequence 30 from access list 100

**Correct Answer:** AE

**QUESTION 134**



Refer to the exhibit. An IPv6 network was newly deployed in the environment and the help desk reports that R3 cannot SSH to the R2's Loopback interface. Which action resolves the issue?

- A. Modify line 10 of the access list to permit instead of deny.
- B. Remove line 60 from the access list.
- C. Modify line 30 of the access list to permit instead of deny
- D. Remove line 70 from the access list

**Correct Answer:** C

**QUESTION 135**

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

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

**Correct Answer:** AB

**QUESTION 136**

The screenshot shows the Cisco DNA Center Assurance Dashboard. At the top, there are tabs for DESIGN, POLICY, PROVISION, ASSURANCE (which is selected), and PLATFORM. Below the tabs, there are sections for Dashboards, Insights And Trends, and Manage. A summary bar shows counts for P1 (66), P2 (71), P3 (237), and P4 (32). A 'Filter' button is present. The main area displays a table of issues. The columns are: Priority, Issue Type, Device Role, Category, Issue Count, Site Count (Building), Device Count, and Last Occurred Time. One row is highlighted with a red border, corresponding to the issue described in the question text.

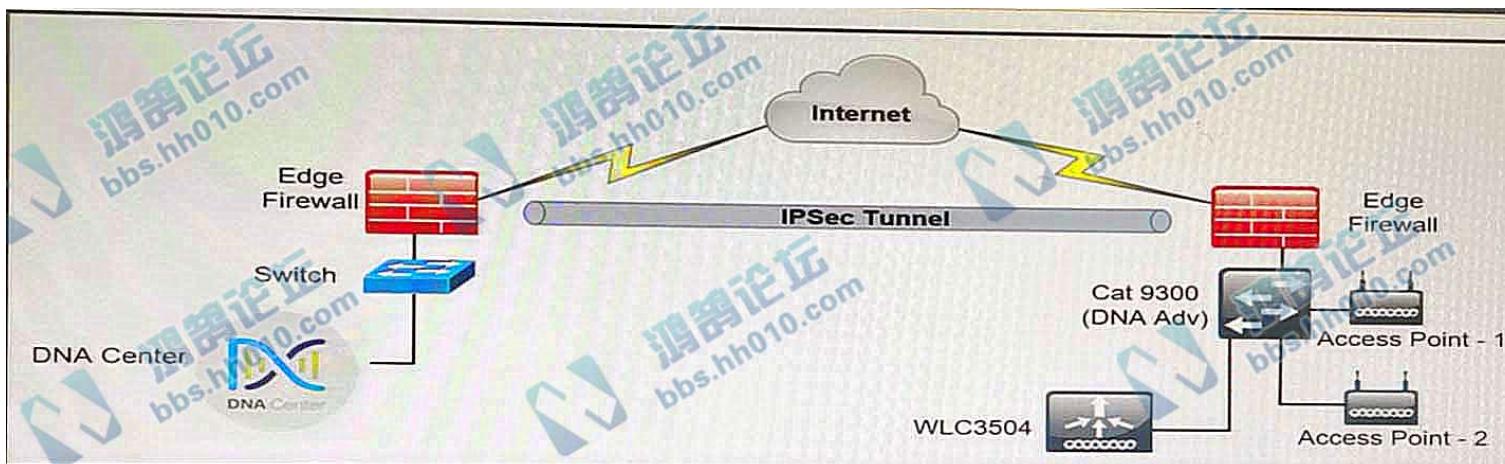
| Priority | Issue Type                                                     | Device Role | Category     | Issue Count | Site Count (Building) | Device Count | Last Occurred Time  |
|----------|----------------------------------------------------------------|-------------|--------------|-------------|-----------------------|--------------|---------------------|
| P2       | Network Device Interface Connectivity - OSPF Adjacency Failure | ACCESS      | Connectivity | 17          | 1                     | 2            | Jan 9, 2020 3:14 pm |

Refer to the exhibit. A network administrator is using the DNA Assurance Dashboard panel to troubleshoot an OSPF adjacency that failed between Edge NYC Interface GigabitEthernet1/3 with Neighbor Edge SNJ. The administrator observes that the neighborship is stuck in exstart state. How does the administrator fix this issue?

- A. Configure to match the OSPF interface unique IP address and subnet mask on both routers.
- B. Configure to match the OSPF interface network types on both routers.
- C. Configure to match the OSPF interface speed and duplex settings on both routers
- D. Configure to match the OSPF interface MTU settings on both routers

**Correct Answer:** D

**QUESTION 137**



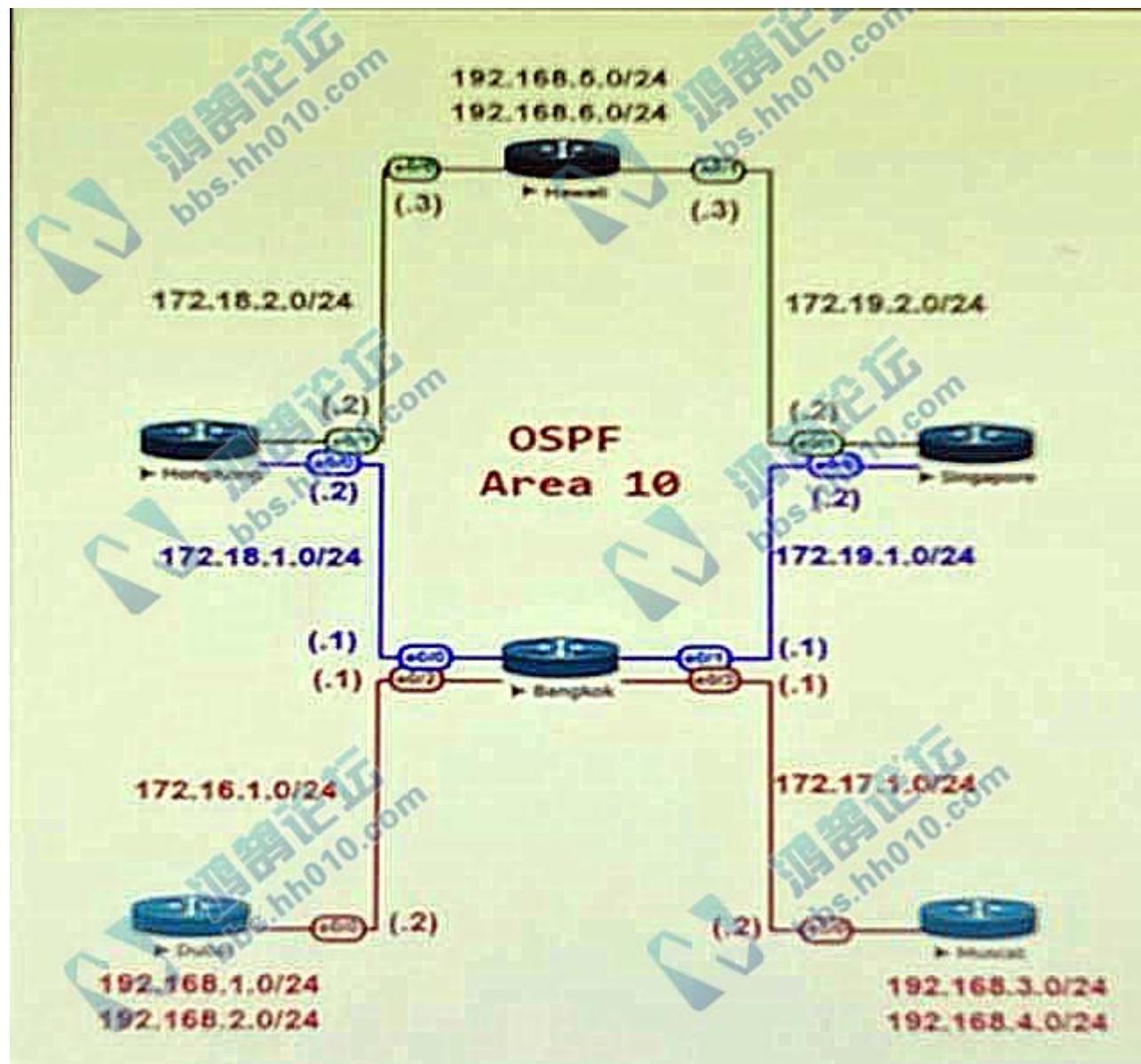
Refer to the exhibit. A network administrator is discovering a Cisco Catalyst 9300 and a Cisco WLC 3504 in Cisco DNA Center. The Catalyst 9300 is added successfully. However, the WLC is showing error "uncontactable" when the administrator tries to add it in Cisco DNA Center. Which action discovers WLC in Cisco DNA Center successfully?

- A. Delete the WLC 3504 from Cisco DNA Center and add it to Cisco DNA Center again.
- B. Copy the pem file from the Cisco DNA Center on the USB and upload it to the WLC 3504
- C. Copy the .cert file from the Cisco DNA Center on the USB and upload it to the WLC 3504
- D. Add the WLC 3504 under the hierarchy of the Catalyst 9300 connected devices

**Correct Answer:** B

#### QUESTION 138

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



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

**Correct Answer: C**

**QUESTION 139**

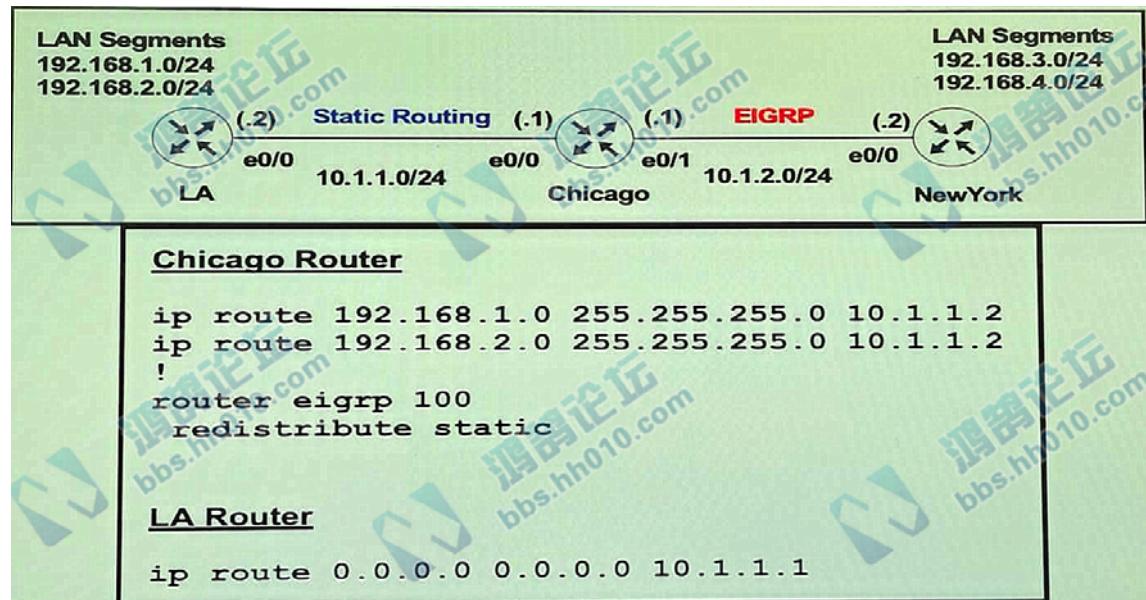
```
13:35:07.826: AAA/BIND (00000055): Bind i/
13:35:07.826: AAA/AUTHEN/LOGIN (00000055): Pick method list 'default'
13:35:07.826: TPLUS: Queuing AAA Authentication request 85 for processing
13:35:07.826: TPLUS (00000055) login timer started 1020 sec timeout
13:35:07.826: TPLUS: processing authentication start request id 85
13:35:07.826: TPLUS: Authentication start packet created for 85()
13:35:07.826: TPLUS: Using server 10.106.60.182
13:35:07.826: TPLUS (00000055)/0/NB_WAIT/225FE2DC: Started 5 sec timeout
13:35:07.830: TPLUS (00000055)/0/NB_WAIT: socket event 2
13:35:07.830: TPLUS (00000055)/0/NB_WAIT: wrote entire 38 bytes request
13:35:07.830: TPLUS (00000055)/0/READ: socket event 1
13:35:07.830: TPLUS (00000055)/0/READ: Would block while reading
13:35:07.886: TPLUS (00000055)/0/READ: socket event 1
13:35:07.886: TPLUS (00000055)/0/READ: read entire 12 header bytes (expect 6 bytes data)
13:35:07.886: TPLUS (00000055)/0/READ: socket event 1
13:35:07.886: TPLUS (00000055)/0/READ: read entire 18 bytes response
13:35:07.886: TPLUS (00000055)/0/225FE2DC: Processing the reply packet
13:35:07.886: TPLUS: received bad AUTHEN packet: length = 6, expected 43974
13:35:07.886: TPLUS: Invalid AUTHEN packet (check keys).
```

Refer to the exhibit. Which action resolves the authentication problem?

- A. Configure the user name on the TACACS+ server
- B. Configure the UDP port 1812 to be allowed on the TACACS+ server
- C. Configure the TCP port 49 to be reachable by the router
- D. Configure the same password between the TACACS+ server and router.

**Correct Answer:** D

**QUESTION 140**



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

- A. Chicago Router  
router eigrp 100  
redistribute static metric 10 10 10 10 10
- B. LA Router  
ip route 192.168.3.0 255.255.255.0 10.1.1.1  
ip route 192.168.4.0 255.255.255.0 10.1.1.1
- C. Chicago Router  
router eigrp 100  
redistribute connected
- D. Chicago Router  
ip route 192.168.3.0 255.255.255.0 10.1.2.2  
ip route 192.168.4.0 255.255.255.0 10.1.2.2

**Correct Answer:** C

#### QUESTION 141

An engineer configured a Cisco router to send reliable and encrypted notifications for any events to the management server. It was noticed that the notification

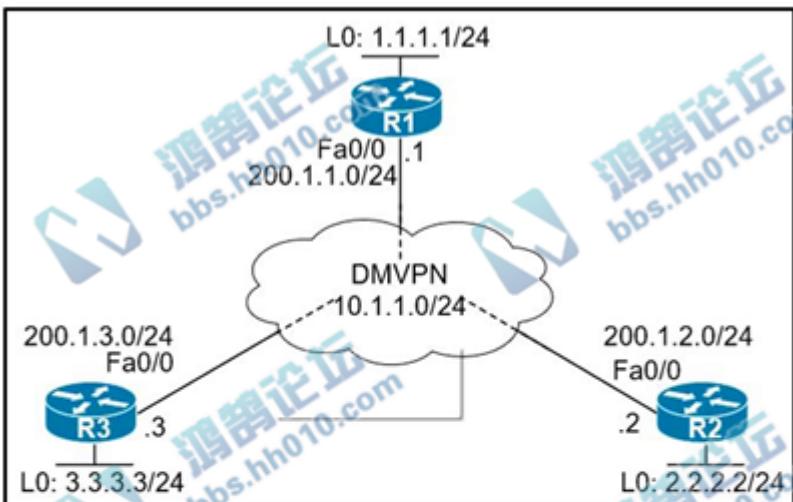
messages are reliable but not encrypted. Which action resolves the issue?

- A. Configure all devices for SNMPv3 traps with auth.
- B. Configure all devices for SNMPv3 traps with priv.
- C. Configure all devices for SNMPv3 informs with auth.
- D. Configure all devices for SNMPv3 informs with priv

**Correct Answer:** D

#### QUESTION 142

Refer to the exhibits.



```
R2:
=====
R2(config)# crypto isakmp policy 10
R2(config-isakmp)# hash md5
R2(config-isakmp)# authentication pre-share
R2(config-isakmp)# group 2
R2(config-isakmp)# encryption 3des
R2(config)# crypto ipsec transform-set TSET esp-des esp-md5-hmac
R2(cfg-crypto-trans)# mode transport
R2(config)# crypto ipsec profile TST
R2(ipsec-profile)# set transform-set TSET
R2(config)# interface tunnel 123
R2(config-if)# tunnel protection ipsec profile TST
```

When DMVPN is configured, which configuration allows spoke-to-spoke communication using loopback as tunnel source?

- A. Configure crypto isakmp key cisco address 0.0.0.0 on the hub.
- B. Configure crypto isakmp key Cisco address 200.1.0.0 255.255.0.0 on the hub.
- C. Configure crypto isakmp key cisco address 200.1.0.0 255.255.0.0 on the spokes.
- D. Configure crypto isakmp key cisco address 0.0.0.0 on the spokes

**Correct Answer:** D

**QUESTION 143**

Refer to the exhibit.

```
login block-for 15 attempts 10 within 120
login on-failure log
login on-success log
archive
log config
logging enable
logging size 300
notify syslog
```

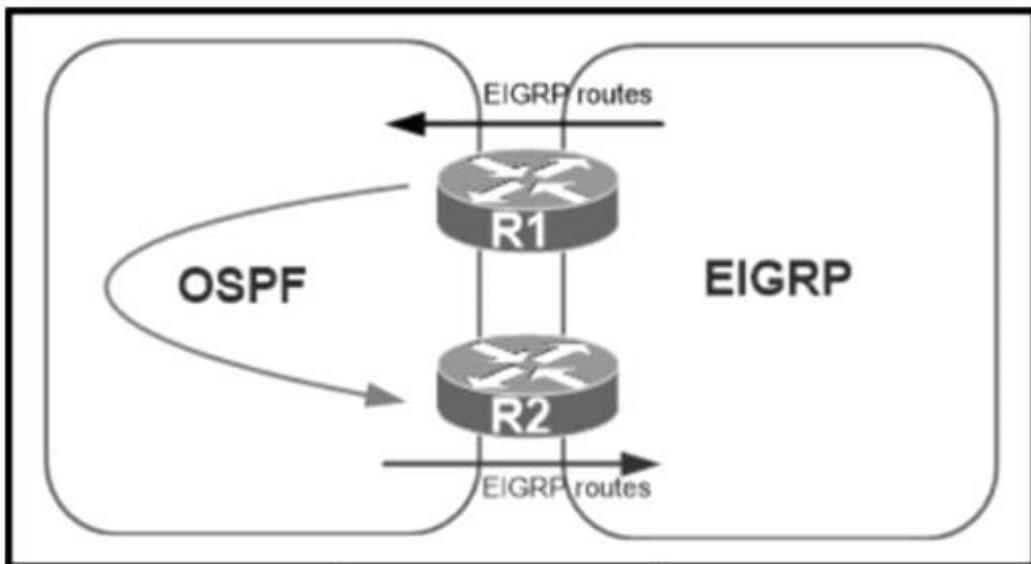
The administrator can see the traps for the failed login attempts, but cannot see the traps of successful login attempts. What command is needed to resolve the issue?

- A. Configure logging history 2
- B. Configure logging history 3
- C. Configure logging history 4
- D. Configure logging history 5

**Correct Answer:** D

**QUESTION 144**

Refer to the exhibit



A network administrator configured mutual redistribution on R1 and R2 routers, which caused instability in the network. Which action resolves the issue?

- A. Set a tag in the route map when redistributing EIGRP into OSPF on R1, and match the same tag on R2 to allow when redistributing OSPF into EIGR
- B. Apply a prefix list of EIGRP network routes in OSPF domain on R1 to propagate back into the EIGRP routing domain.
- C. Set a tag in the route map when redistributing EIGRP into OSPF on R1, and match the same tag on R2 to deny when redistributing OSPF into EIGRP
- D. Advertise summary routes of EIGRP to OSPF and deny specific EIGRP routes when redistributing into OSPF.

**Correct Answer:** C

**QUESTION 145**

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

Refer to the exhibit. Which action restores the routes from neighbors while still filtering 1 1 1 0/24?

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

**Correct Answer:** D

**QUESTION 146**

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:**

Drag each definition on the left to the matching term on the right.

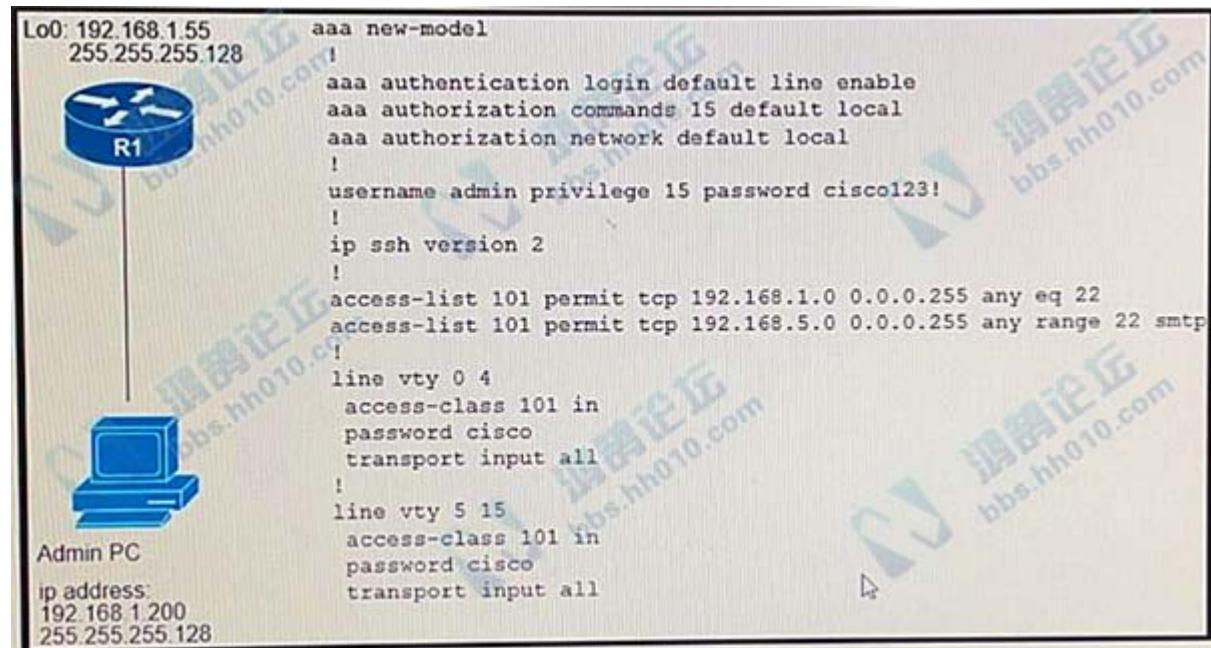
|                                  |        |
|----------------------------------|--------|
| configure route map instances    | step 1 |
| configure set commands           | step 2 |
| configure fast switching for PBR | step 3 |
| configure ACLs                   | step 4 |
| configure match commands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

Correct Answer:

Drag each definition on the left to the matching term on the right.

|  |                                  |
|--|----------------------------------|
|  | configure ACLs                   |
|  | configure route map instances    |
|  | configure match commands         |
|  | configure set commands           |
|  | configure PBR on the interface   |
|  | configure fast switching for PBR |

QUESTION 147



Refer to the exhibit. The administrator successfully logs into R1 but cannot access privileged mode commands. What should be configured to resolve the issue?

- A. **aaa authorization reverse-access**
- B. **secret cisco 123!** at the end of the **username** command instead of **password cisco123!**
- C. matching password on vty lines as **cisco123!**
- D. **enable secret** or **enable password** commands to enter into privileged mode

**Correct Answer:** D

#### **QUESTION 148**

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

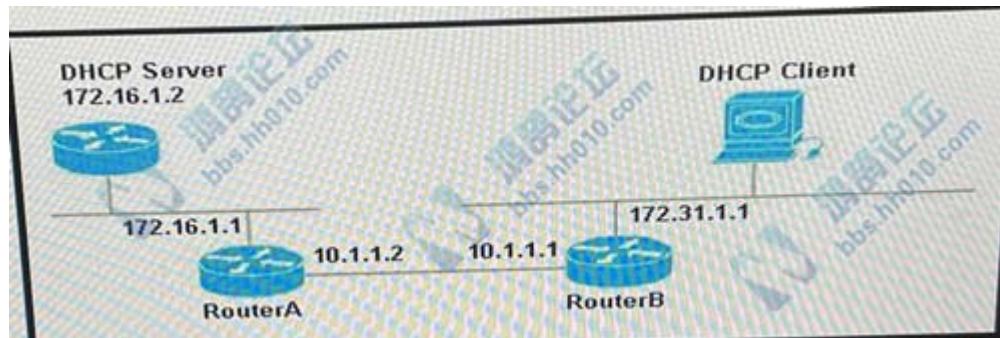
**Select and Place:**

|                              |                                                                |
|------------------------------|----------------------------------------------------------------|
| 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          |

#### QUESTION 149



Refer to the exhibit. The DHCP client is unable to receive an IP address from the DHCP server. RouterB is configured as follows:

**Interface fastethernet 0/0**

**Description client DHCP ID388888888**

**Ip address 172.31.1.1 255.255.255.0**

**!**

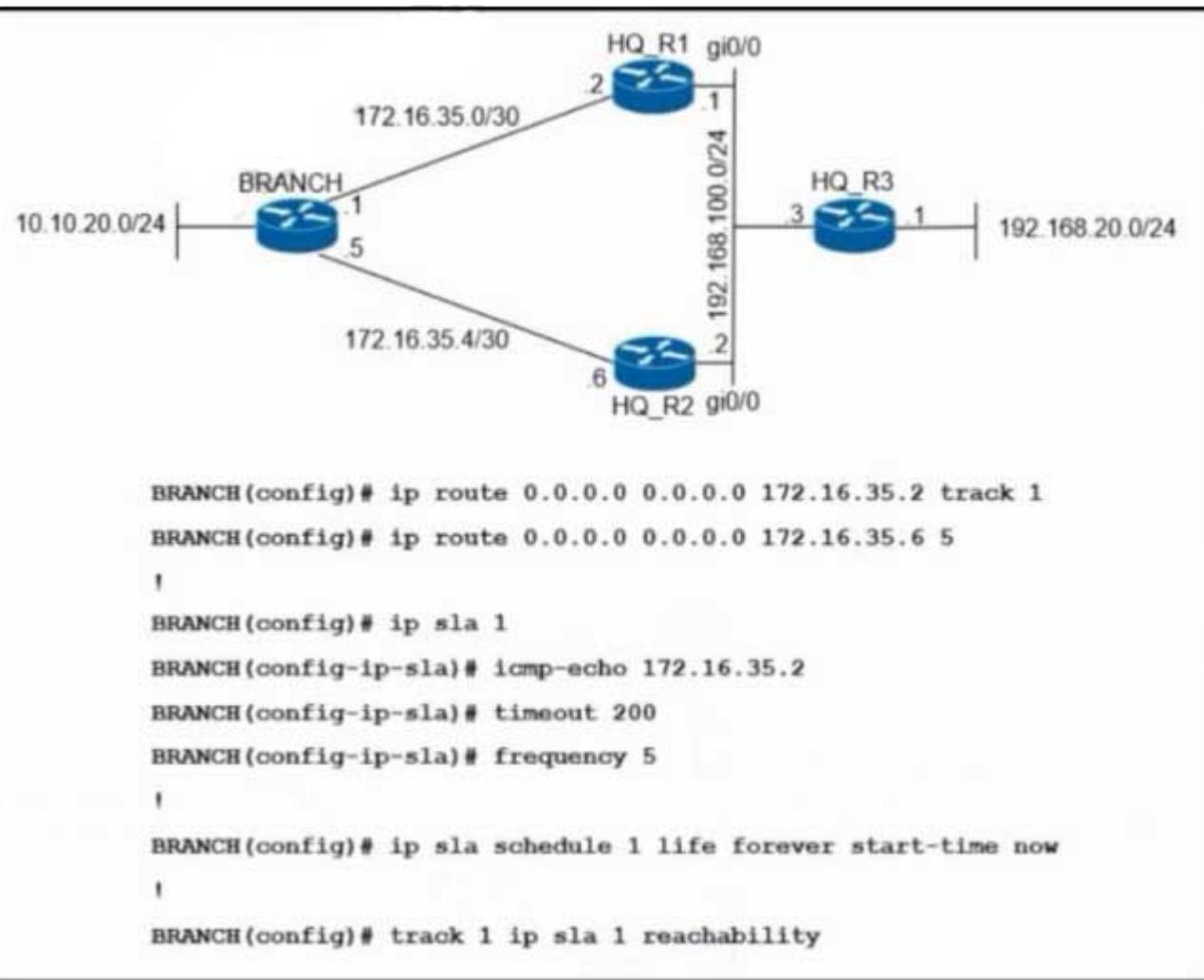
**Ip route 172.16.1.0 255.255.255.0 10.1.1.2**

Which command is required on the fastethernet 0/0 interface of RouterB to resolve this issue ?

- A. RouterB(config-if)#ip helper-address 255.255.255.255
- B. RouterB(config-if)#ip helper-address 172.31.1.1
- C. RouterB(config-if)#ip helper-address 172.16.1.2
- D. RouterB(config-if)#ip helper-address 172.16.1.1

**Correct Answer: C**

**QUESTION 150**



Refer to the exhibit. An engineer has successfully set up a floating static route from the BRANCH router to the HQ network using HQ\_R1 as the primary default gateway. When the g0/0 goes down on HQ\_R1, the branch network cannot reach the HQ network 192 168 20 0/24. Which set of configurations resolves the issue?

- A. HQ\_R3(config)# ip sla responder  
HQ\_R3(config)# ip sla responder icmp-echo 172.16.35.1
- B. BRANCH(config)# ip sla 1

- BRANCH(config-ip-sla)# icmp-echo 192.168.100.2
- C. HQ R3(config)# ip sla responder  
HQ\_R3(config)# ip sla responder icmp-echo 172.16.35.5
- D. BRANCH(config)# ip sla 1  
BRANCH(config-ip-sla)# icmp-echo 192.168.100.1

**Correct Answer:** D

#### QUESTION 151

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

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

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

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

**Correct Answer:** D

#### QUESTION 152

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

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

**Correct Answer:** A

**QUESTION 153**

An engineer is troubleshooting on the console session of a router and turns on multiple debug commands. The console screen is filled with scrolling debug messages that none of the commands can be verified if entered correctly or display any output. Which action allows the engineer to see entered console commands while still continuing the analysis of the debug messages?

- A. configure the **term no mon** command globally
- B. Configure the **no logging console debugging** command globally
- C. Configure the **logging synchronous** command
- D. Configure the **logging synchronous level all** command

**Correct Answer:** C

**QUESTION 154**

An engineer configured policy-based routing for a destination IP address that does not exist in the routing table. How is the packet treated through the policy for configuring the **set ip default next-hop** command?

- A. Packets are forwarded based on a static route
- B. Packets are not forwarded to the specific next hop
- C. Packets are forwarded based on the touting table
- D. Packets are forwarded to the specific next hop

**Correct Answer:** D

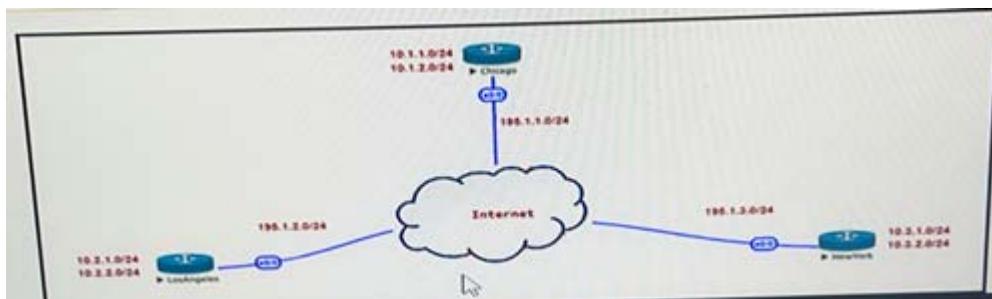
**QUESTION 155**

An engineer must configure a Cisco router to initiate secure connections from the router to other devices in the network but kept failing. When two actions resolve the issue? (Choose two )

- A. Configure a domain name
- B. Configure **transport input ssh** command on the console
- C. Configure a source port for the SSH connection to initiate
- D. Configure a crypto key to be generated
- E. Configure a TACACS+ server and enable it

**Correct Answer:** AD

**QUESTION 156**



## Chicago

```

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

```

```

router eigrp 111
 network 192.168.1.0
 network 10.0.0.0

```

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

- A. **interface Tunnel 1**  
tunnel protection ipsec profile IP SEC-PROFILE
- B. **interface Tunnel 1**  
ip next-hop-self eigrp 111
- C. **interface Tunnel 1**  
no ip split-horizon eigrp 111

- D. interface Tunnel 1  
tunnel mode ipsec ipv4

**Correct Answer: C**

### QUESTION 157

The screenshot shows a network troubleshooting interface. At the top, a summary table indicates 2 Open Issues, 1 Area (1 Buildings, 0 Floors), and 2 DISTRIBUTION devices. Below this, under 'Layer 2 loop symptoms', two specific issues are listed:

| Issue                              | Site   | Device     | Device Type                | Issue Count |
|------------------------------------|--------|------------|----------------------------|-------------|
| HOST PORTS DISJOINTED BY VLAN/ANCS | USA/SF | SF-C9300-1 | Cisco Catalyst 9300 Switch | 24          |
| HOST PORTS DISJOINTED BY VLAN/ANCS | USA/SF | SF-C9300-2 | Cisco Catalyst 9300 Switch | 24          |

Under 'Potential Loop Details', four ports are identified as being in loops:

| Device     | Role         | Port in loop          | Duplex | VLAN in loop |
|------------|--------------|-----------------------|--------|--------------|
| SF-C9300-1 | DISTRIBUTION | GigabitEthernet1/0/13 | Full   | 30-33        |
| SF-C9300-2 | DISTRIBUTION | GigabitEthernet1/0/13 | Full   | 30-33        |
| SF-C9300-1 | DISTRIBUTION | GigabitEthernet1/0/23 | Full   | 30-33        |
| SF-A3800-1 | ACCESS       | GigabitEthernet1/0/23 | Full   | 30-33        |

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

Refer to the exhibits. An engineer identified a Layer 2 loop using DNAC. Which command fixes the problem in the SF switch?

- A. no spanning-tree uplinkfast
- B. spanning-tree loopguard default

- C. spanning-tree portfast bpduguard
- D. spanning-tree backbonefast

**Correct Answer:** C

**QUESTION 158**

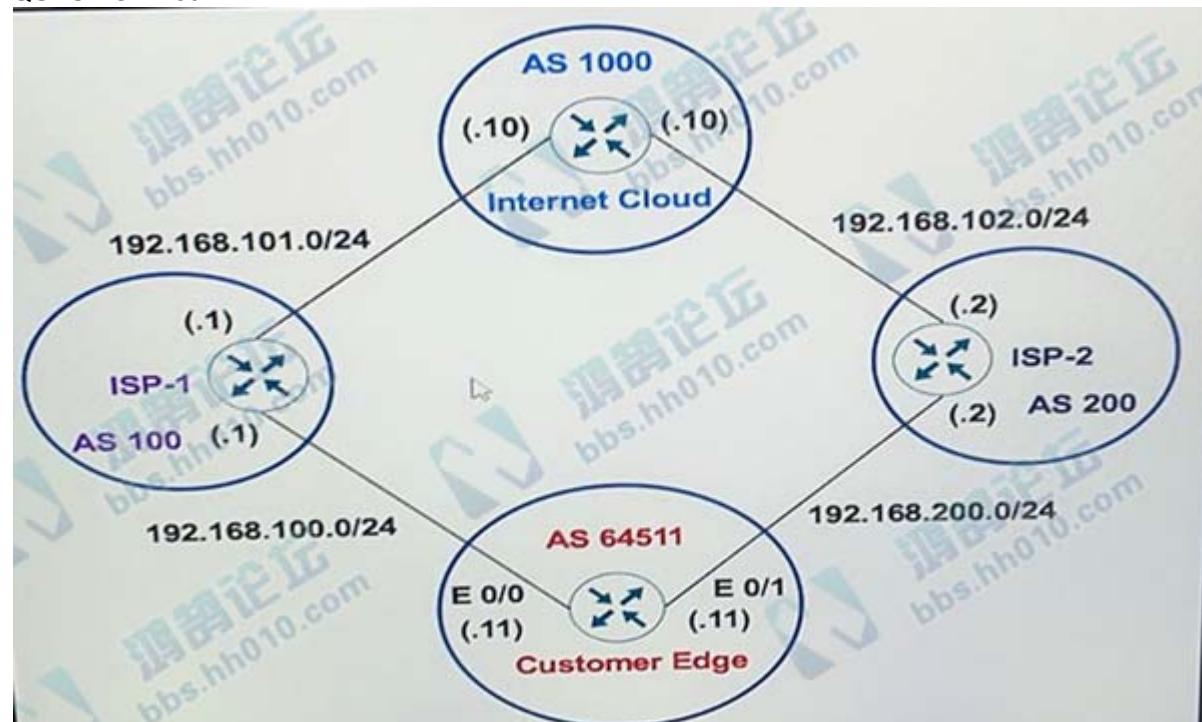
```
config t
flow record v4_r1
match ipv4 tos
match ipv4 protocol
match ipv4 source address
match ipv4 destination address
match transport source-port
match transport destination-port
collect counter bytes long
collect counter packets long
!
flow exporter EXPORTER-1
destination 172.16.10.2
transport udp 2055
exit
!
flow monitor FLOW-MONITOR-1
exporter EXPORTER-1
record v4_r1
exit
!
flow monitor v4_r1
!
ip cef
!
interface Ethernet0/0.1
ip address 172.16.6.2 255.255.255.0
ip flow monitor v4_r1 input
!
```

Refer to the exhibit. The remote server is failing to receive the Netflow data. Which action resolve the issue?

- A. Modify the interface command to **ip flow monitor FLOW-MONITOR-1 input**
- B. Modify the udp port under flow exporter profile to **ip transport udp 4739**
- C. Modify the flow record command **record v4\_r1** to move under flow exporter profile
- D. Modify the flow transport command **transport udp 2065** to move under flow monitor profile

**Correct Answer:** A

#### **QUESTION 159**



Refer to the exhibit. The network administrator has configured the Customer Edge router (AS 64511) to send only summarized routes toward ISP-1 (AS 100) and ISP-2 (AS 200).

**router bgp 64511**

```
network 172.16.20.0 mask 255.255.255.0
network 172.16.21.0 mask 255.255.255.0
network 172.16.22.0 mask 255.255.255.0
```

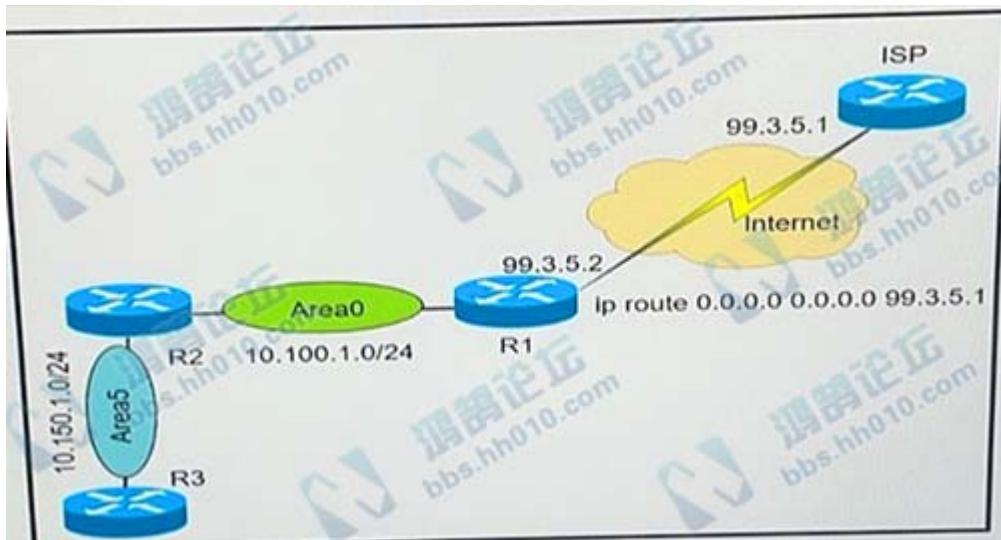
```
network 172.16.23.0 mask 255.255.255.0
aggregate-address 172.16.20.0 255.255.252.0
```

After this configuration, ISP-1 and ISP-2 continue to receive the specific routes and the summary route. Which configuration resolves the issue?

- A. router bgp 64511  
neighbor 192.168.100.1 summary-only  
neighbor 192.168.200.2 summary-only
- B. ip prefix-list PL\_BLOCK\_SPECIFIC deny 172.16.20.0/22 ge 22  
ip prefix-list PL\_BLOCK\_SPECIFIC permit 172.16.20.0/22  
!  
route-map BLOC\_KSPECIFIC permit 10  
match ip address prefix-list PL\_BLOCK\_SPECIFIC  
!  
router bgp 64511  
aggregate-address 172.16.20.0 255.255.252.0 suppress-map BLOCK\_SPECIFIC
- C. interface E 0/0  
ip bgp suppress-map BLOCK\_SPECIFIC  
!  
interface E 0/1  
ip bgp suppress-map BLOCK\_SPECIFIC  
ip prefix-list PL\_BLOCK\_SPECIFIC permit 172.16.20.0/22 ge 24  
!  
route-map BLOCK\_SPECIFIC permit 10  
match ip address prefix-list PL\_BLOCK\_SPECIFIC
- D. router bgp 64511  
aggregate-address 172.16.20.0 255.255.252.0 summary-only

**Correct Answer:** D

**QUESTION 160**



Refer to the exhibit. A network administrator redistributed the default static route into OSPF toward all internal routers to reach to Internet.Which set of commands restores reachability to the internet by internal routers?

- A. router ospf 1  
redistribute static subnets
- B. router ospf 1  
network 0.0.0.0 0.0.0.0 area 0
- C. router ospf 1  
redistribute connected 0.0.0.0
- D. router ospf 1  
default-information originate

**Correct Answer:** D

#### QUESTION 161

```
Spoke# show dmvpn
Tunnel0, Type:Spoke, NHRP Peers:2,
Ent Peer NBMA Addr Peer Tunnel Add State UpDn Tm Attrb
-----+
1 172.18.16.2 192.168.1.1 UP 01:05:35 S
1 172.18.46.2 192.168.1.4 UP 00:00:25 D
```

Refer to the exhibit.An engineer has configured DMVPN on a spoke router.What is the WAN IP address of another spoke router within the DMVPN network?

- A. 172.18.46.2
- B. 172.18.16.2
- C. 192.168.1.1
- D. 192.168.1.4

**Correct Answer:** A

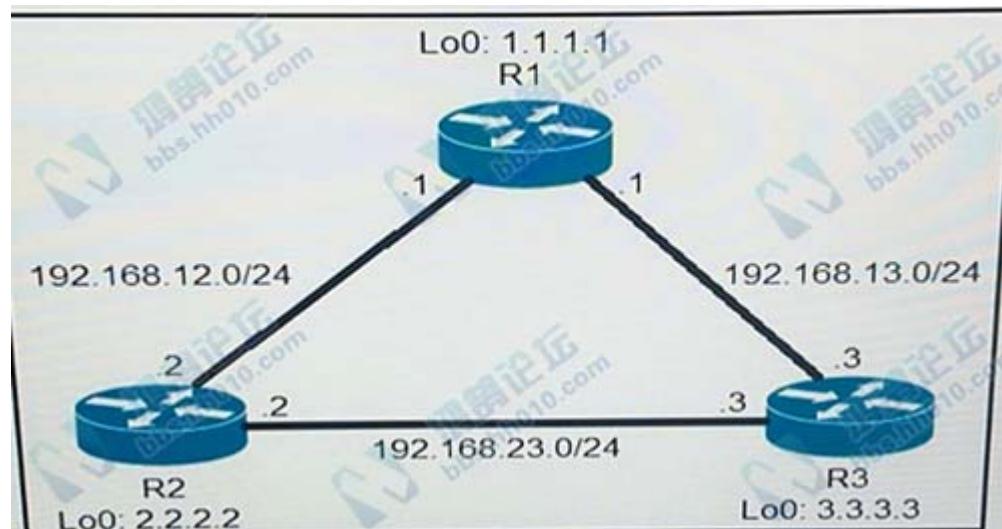
**QUESTION 162**

When configuring Control Plane Policing on a router to protect it from malicious traffic, an engineer observes that the configured routing protocols start flapping on that device. Which action in the Control Plane Policy prevents this problem in a production environment while achieving the security objective?

- A. Set the conform-action to transmit and exceed-action to drop to test the ACLs and transmit rates and apply the Control Plane Policy in the input direction
- B. Set the conform-action to transmit and exceed-action to drop to test the ACLs and transmit rates and apply the Control Plane Policy in the output direction
- C. Set the conform-action and exceed-action to transmit initially to test the ACLs and transmit rates and apply the Control Plane Policy in the output direction
- D. Set the conform-action and exceed action to transmit initially to test the ACLs and transmit rates and apply the Control Plane Policy in the intput direction

**Correct Answer:** D

**QUESTION 163**



```
R2#show ip protocols | include eigrp|Maximum
Routing Protocol is "eigrp 1"
 Maximum path: 4
 Maximum hopcount 100
 Maximum metric variance 1

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

R2#show ip route 192.168.13.0
Routing entry for 192.168.13.0/24
 Known via "eigrp 1", distance 90, metric 1075200, type internal
 Redistributing via eigrp 1
 Last update from 192.168.23.3 on FastEthernet0/1, 00:00:57 ago
```

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

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

**Correct Answer:** C

#### QUESTION 164

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

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

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

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

**Correct Answer:** D

**QUESTION 165**

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

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

**Correct Answer:** DE

**QUESTION 166**

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

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

**Correct Answer:** C

**QUESTION 167**

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

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

**Correct Answer:** AB

**QUESTION 168**

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

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

**Correct Answer:** CD

**QUESTION 169**

```
OSPF: Send DBD to 10.100.1.2 on GigabitEthernet0/1 seq 0x9E6 opt
0x52 flag 0x7
 len 32
OSPF: Retransmitting DBD to 10.100.1.2 on GigabitEthernet0/1
[10]
OSPF: Send DBD to 10.100.1.2 on GigabitEthernet0/1 seq 0x9E6 opt
0x52 flag 0x7
 len 32
OSPF: Retransmitting DBD to 10.100.1.2 on GigabitEthernet0/1
[11]
%OSPF-5-ADJCHG: Process 1, Nbr 10.100.1.2 on GigabitEthernet0/1
from EXSTART to
 DOWN, Neighbor Down: Too many retransmissions
```

Refer to the exhibit. The ospf neighbor relationship is not coming up. What must be configured to restore OSPF neighbor adjacency?

- A. OSPF on the remote router
- B. matching mtu values
- C. matching hello timers
- D. use router ID

**Correct Answer:** B

**QUESTION 170**

```
ip prefix-list DefaultRouteOnly seq 5 deny 0.0.0.0/0 le 32
ip prefix-list DefaultRouteOnly seq 10 permit 0.0.0.0/0

router eigrp ccnp
 address-family ipv4 unicast autonomous-system 1
 topology base
 distribute-list prefix DefaultRouteOnly out Tunnel0
```

Refer to the exhibit. The administrator configured route advertisement to a remote low resources router to use only the default route to reach any network but failed. Which action resolves this issue?

- A. Remove the line with the sequence number 5 from the prefix list
- B. Remove the line with the sequence number 10 from the prefix list
- C. Change the direction of the **distribute-list** command from out to in
- D. Remove the prefix keyword from the **distribute-list** command

**Correct Answer:** A

**QUESTION 171**

**Configuration output:**

```
clock timezone PST -8
clock summer-time PDT recurring
service timestamps debug datetime
service timestamps log datetime
logging buffered 16000 debugging
ntp clock-period 1717000
ntp server 161.181.92.152
```

**Debug output:**

```
router#show clock
14:12:11 PDT Thu Apr 27 2019
router#config t
Enter configuration commands, one per line. End with CNTL/Z.
router(config)#exit

router#
Apr 27 21:11:02 %SYS-5-CONFIG_I: Configured from console by vty0
```

Refer to the exhibit A network administrator configured NTP on a Cisco router to get synchronized time for system and logs from a unified time source. The configuration did not work as desired. Which service must be enabled to resolve the issue?

- A. Enter the **service timestamps log datetime clock-period** global command
- B. Enter the **service timestamps log datetime localtime** global command
- C. Enter the **service timestamps log datetime synchronize** global command
- D. Enter the **service timestamps log datetime console** global command

**Correct Answer:** B

**QUESTION 172**

What are two purposes of using IPv4 and VPNv4 address-family configurations in a Layer 3 MPLS VPN? (Choose two.)

- A. RD is prepended to the IPv4 route to make it unique
- B. The VPNv4 address consists of a 64-bit route distinguisher that is prepended to the IPv4 prefix
- C. MP-BGP is used to allow overlapping IPv4 addresses between customers to advertise through the network
- D. The IPv4 address is needed to tag the MPLS label
- E. The VPNv4 address is used to advertise the MPLS VPN label

**Correct Answer:** AB

**QUESTION 173**

which protocol does MPLS use to support traffic engineering ?

- A. LDP
- B. BGP
- C. RSVP
- D. TDP

**Correct Answer:** C

**QUESTION 174**

```
Ipv6 unicast-routing
!
Router ospfv3 4
 Router-id 192.168.1.1
!
Interface E 0/0
 Ipv6 enable
 Ip address 10.1.1.1 255.255.255.0
 Ospfv3 4 area 0 ipv4
 No shut
!
Interface Loopback0
 Ipv6 enable
 Ipv4 172.16.1.1 255.255.255.0
 Ospfv3 4 area 0 ipv4
```

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

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

**Correct Answer:** C

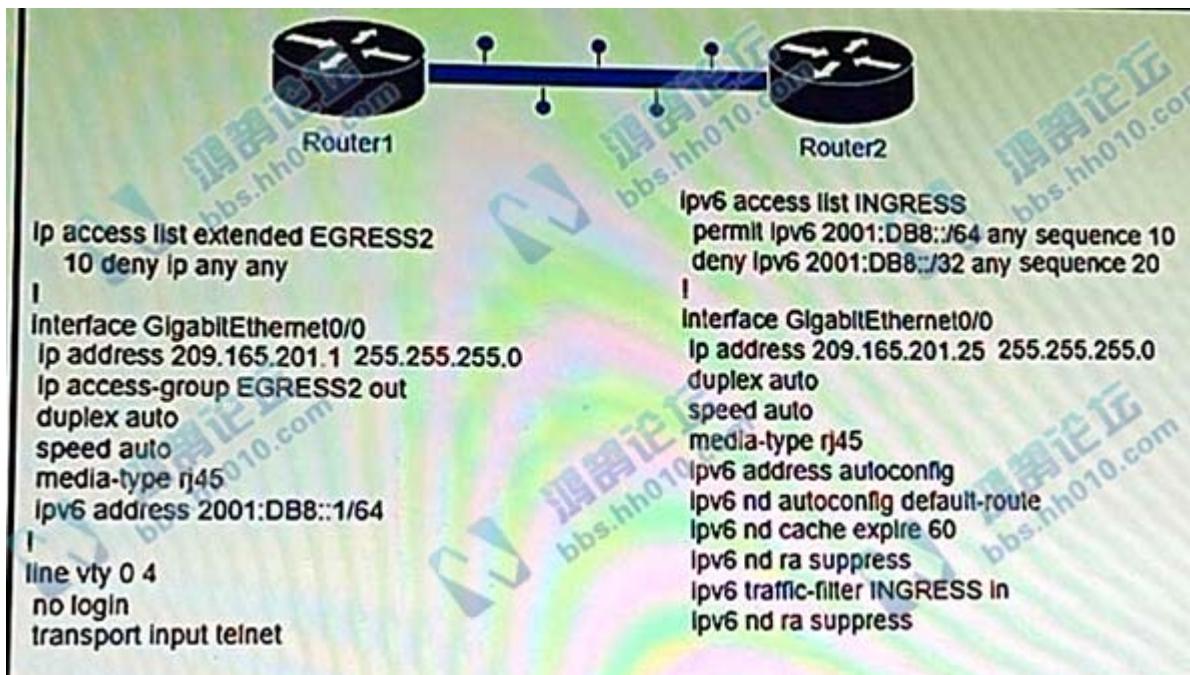
**QUESTION 175**

An engineer coconfigured a DHCP server for Cisco IP phones to download its configuration from a TFTP sever, but the IP phones failed to load the configuration. What must be configured to resolve the issue?

- A. BOOTP port 67
- B. DHCP option 66
- C. BOOTP port 68
- D. DHCP option 69

**Correct Answer:** B

**QUESTION 176**



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

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

**Correct Answer:** D

#### QUESTION 177

Refer to the exhibit. 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?

**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  | ?      |      |

- 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**

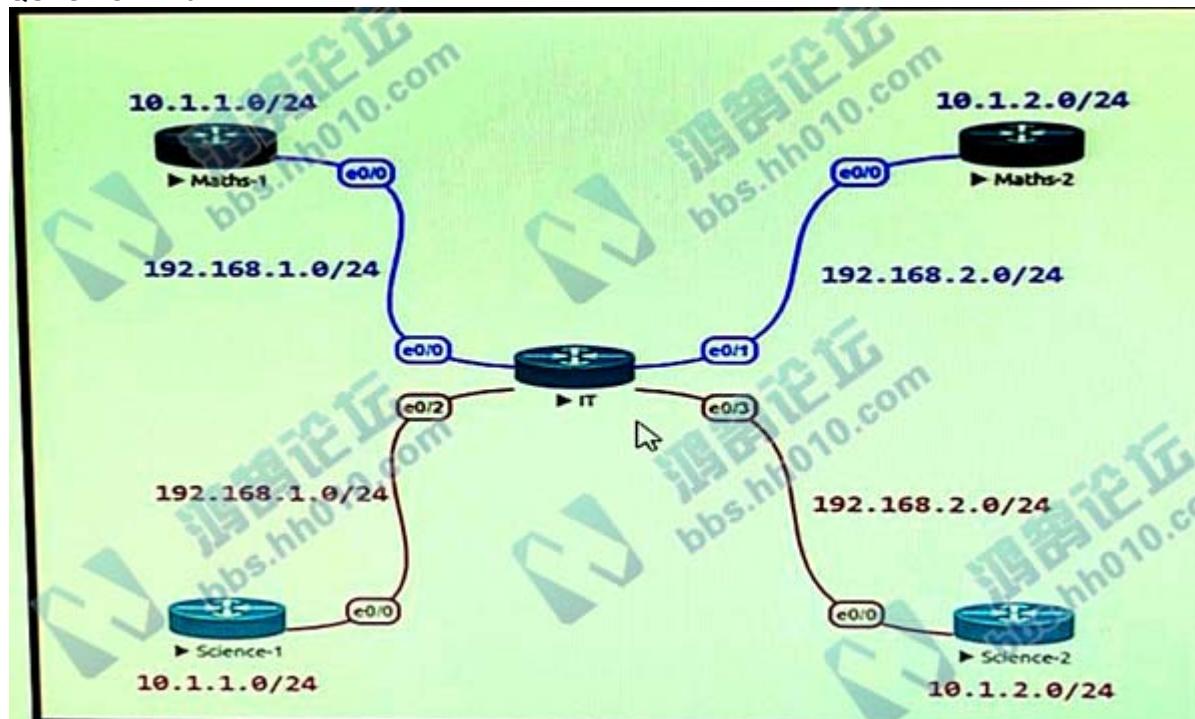
**QUESTION 178**

A customer reports to the support desk that they cannot print from their PC to the local printer id: XXXXXXXX. 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

**QUESTION 179**



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  
!  
interface E 0/2
ip address 192.168.1.1 255.255.255.0
vrf forwarding Science
no shut
!
interface 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  
!  
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

D. 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
ip address 192.168.2.1 255.255.255.0
no shut

**Correct Answer:** D

**QUESTION 180**

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 l2-sre

**Correct Answer:** B

**QUESTION 181**

The screenshot shows the Cisco DNA Center interface. The top navigation bar includes 'HOME', 'DNA CENTER', 'SESSION', 'POLICY', 'PROVISION', and 'ASSURANCE'. The 'ASSURANCE' tab is selected. On the left, there's a 'Health' dashboard with a 'Network Device' section showing '80%' health and a 'Blaster' icon. Below it is a 'Top 10 Issues' section with a 'P2' icon. The main content area displays an alert titled 'Excessive time lag between Cisco DNA Center and WLC "WLC-5520"'. The alert status is 'Open' and last occurred on 'Dec 14'. The 'Description' section states: 'The time on Cisco DNA Center and WLC "WLC-5520" has drifted too far apart. The drift between the two devices is "61.6 minutes". Cisco DNA Center cannot process the wireless client data accurately if the time difference is more than 10 minutes.' The 'Suggested Actions (3)' section lists:

- 1 If NTP is enabled, check whether the NTP servers are reachable from Cisco DNA Center and the WLC.
- 2 If NTP servers are not configured, configure the NTP servers on Cisco DNA Center and WLC "WLC-5520".
- 3 If NTP servers are not deployed, manually reset the time on Cisco DNA Center or WLC "WLC-5520" so that the time is synchronized.

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

Correct Answer: B

QUESTION 182

**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 K0AyUubDrfOgO4s
authorization exec VTY_AUTH
login authentication VTY_AUTH
```

```
!
```

**Debug Output:**

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

Refer to the exhibit. Which action resolves the failed authentication attempt to the router?

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

Correct Answer: A

QUESTION 183

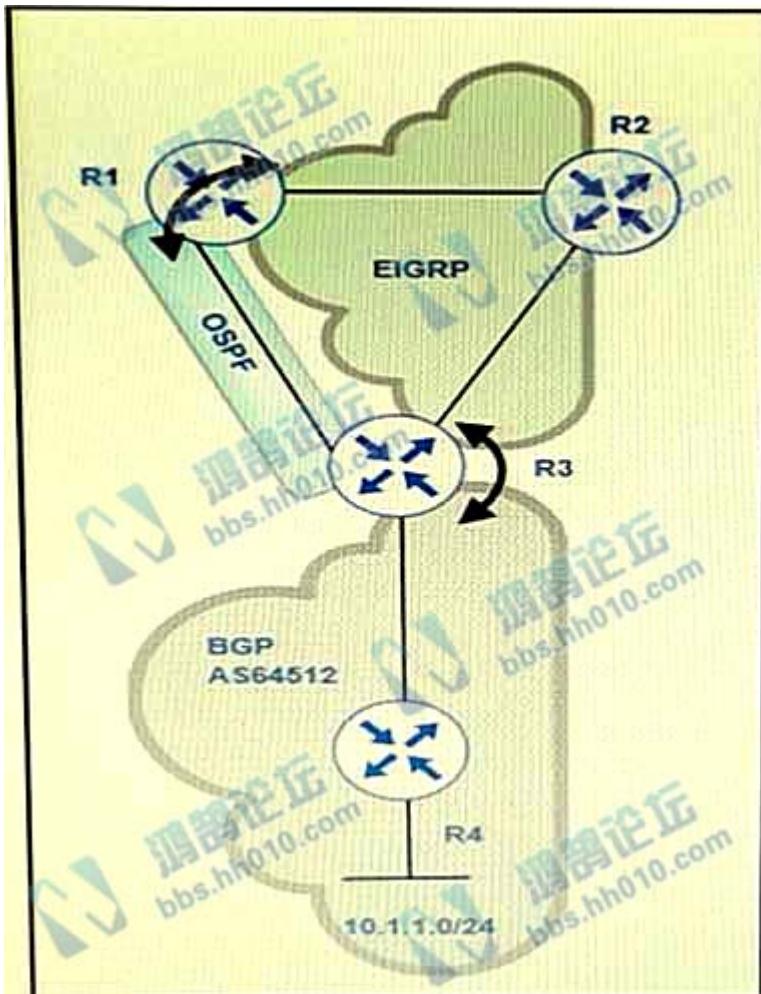
```
router ospf 1
 redistribute eigrp 1 subnets route-map EIGRP->OSPF
!
router eigrp 1
 network 10.0.106.0 0.0.0.255
!
route-map EIGRP->OSPF permit 10
 match ip address WAN_PREFIXES
route-map EIGRP->OSPF permit 20
 match ip address LOCAL_PREFIXES
route-map EIGRP->OSPF permit 30
 match ip address VPN_PREFIXES
!
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
!
```

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

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

**Correct Answer:** C

**QUESTION 184**

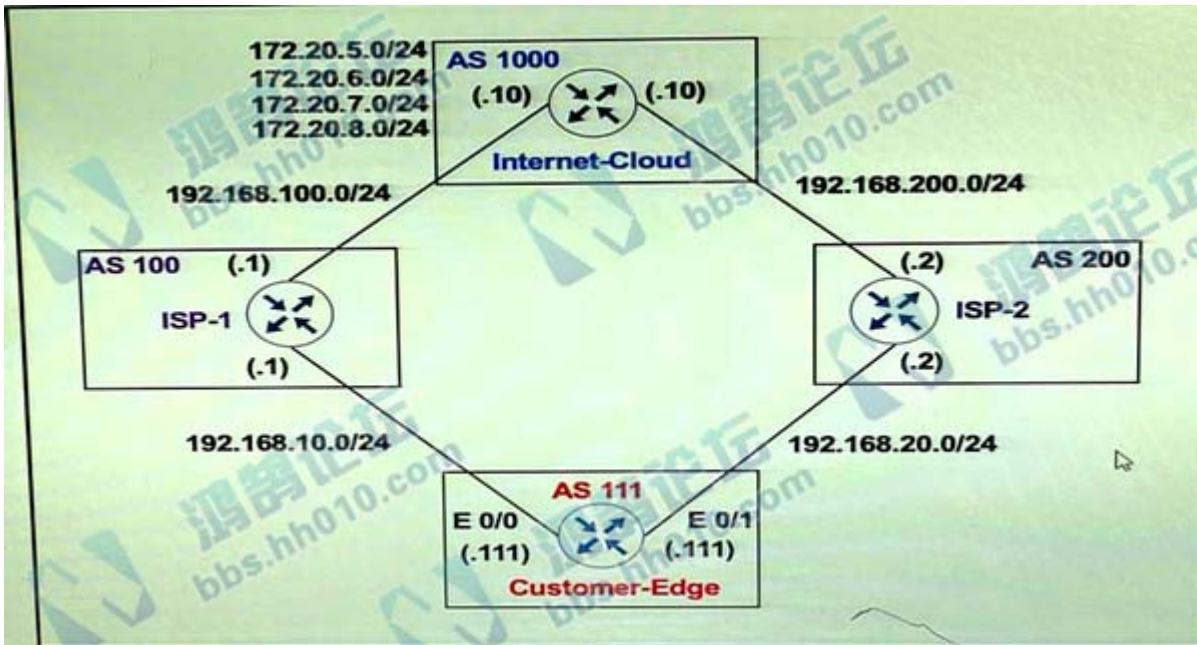


Refer to the exhibit. Routing protocols are mutually redistributed on R3 and R1. Users report intermittent connectivity to services hosted on the 10.1.1.0/24 prefix. Significant routing update changes are noticed on R3 when the show ip route profile command is run. How must the services be stabilized?

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

Correct Answer: D

QUESTION 185



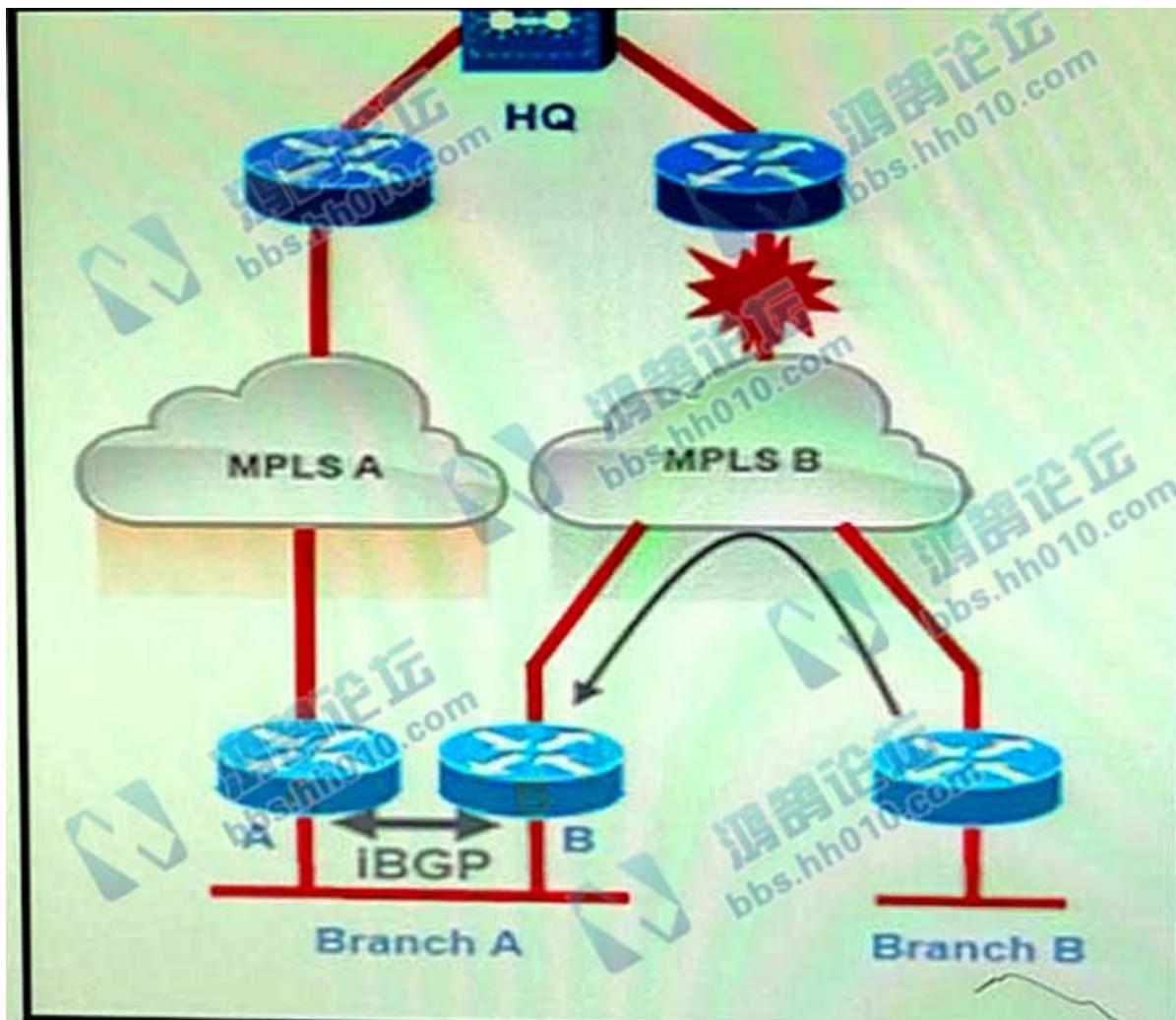
```
ip prefix-list PLIST1 permit 172.20.5.0/24
!
route-map SETLP permit 10
 match ip address prefix-list PLIST1
 set local-preference 90
!
router bgp 111
 neighbor 192.168.10.1 remote-as 100
 neighbor 192.168.10.1 route-map SETLP in
 neighbor 192.168.20.2 remote-as 200
```

Refer to the exhibit 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-map 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 bgp 111  
  no neighbor 192.168.10.1 route-map SETLP in  
  neighbor 192.168.20.2 route-map SE TLP in

**Correct Answer:** A

**QUESTION 186**



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. 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
- B. 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
- 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. Introduce an AS path filter on branch A routers so that only local prefixes are advertised into BGP

**Correct Answer:** D

**QUESTION 187**

```
LA
router ospf 1
 network 192.168.12.0 0.0.0.255 area 0
 network 172.16.1.0 0.0.0.255 area 0

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
```

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

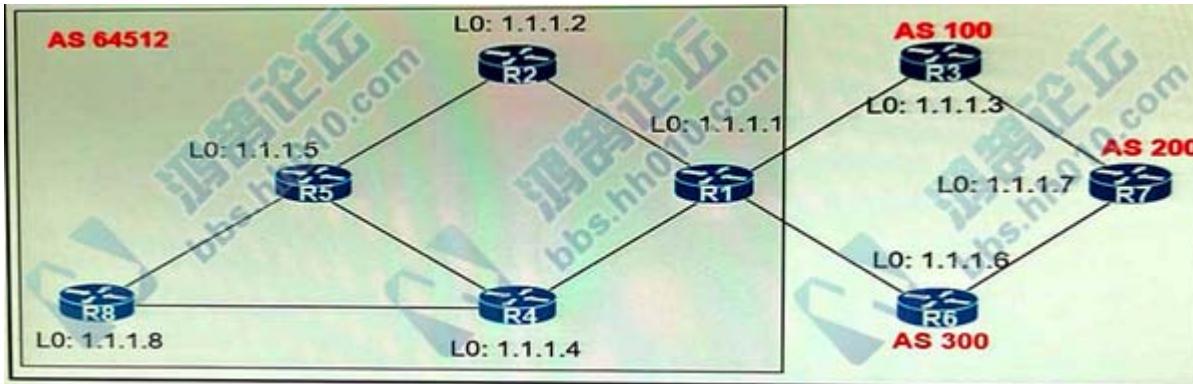
- A. NY  
router ospf 1  
area 0 authentication message-digest
- B. LA  
interface E 0/0  
ip ospf message-digest-key 1 md5 Cisco123
- C. NY  
interface E 0/0  
no ip ospf message-digest-key 1 md5 Cisco123  
ip ospf authentication-key Cisco123
- D. LA  
interface E 0/0

```
ip ospf authentication-key Cisco123
```

- E. LA  
router ospf 1  
area 0 authentication message-digest

**Correct Answer:** BE

**QUESTION 188**



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

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

**Correct Answer:** C

**QUESTION 189**

Which configuration feature should be used to block rogue router advertisements instead of using the IPV6 Router Advertisement Guard feature?

- A. PVLANS with promiscuous ports associated to route advertisements and isolated ports for nodes  
B. IPV4 ACL blocking route advertisements from nonauthorized hosts  
C. VACL blocking broadcast frames from nonauthorized hosts  
D. PVLANS with community ports associated to route advertisements and isolated ports for nodes

**Correct Answer:** A

**QUESTION 190**

```
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(hlfm_set_if_input): Setting if_input to Po2 for pak. Was Vl1
Jan 9 15:29:31.509: DHCP_SNOOP(hlfm_set_if_input): Setting if_input to Vl1 for pak. Was Po2
Jan 9 15:29:31.509: DHCP_SNOOP(hlfm_set_if_input): Setting if_input to Po2 for pak. Was Vl1Jan 9
15:29:31.517: DHCP_SNOOP: received new DHCP packet from input interface (Port-channel2)
```

Refer to the exhibit. A network administrator enables DHCP snooping on the Cisco Catalyst 3750-X switch and configures the uplink port (Portchannel2) 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. ip dhcp snooping trust
- B. ip dhcp snooping
- C. no ip dhcp snooping information option
- D. ip dhcp relay information trust portchannel2

**Correct Answer:** C

**QUESTION 191**

```
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(00001) 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(00001)/0/WRITER/3A72(): 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() AUTHOR/START queued
Aug 26 12:40:01.449: TAC+: () AUTHOR/START processed
Aug 26 12:40:01.449: TAC+: (-64140) received author response status = FAIL
Aug 26 12:40:01.450: TAC+: Closing TCP/IP 0x3BE31D1C connection to 192.168.1.3/49
```

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

**Correct Answer:** C

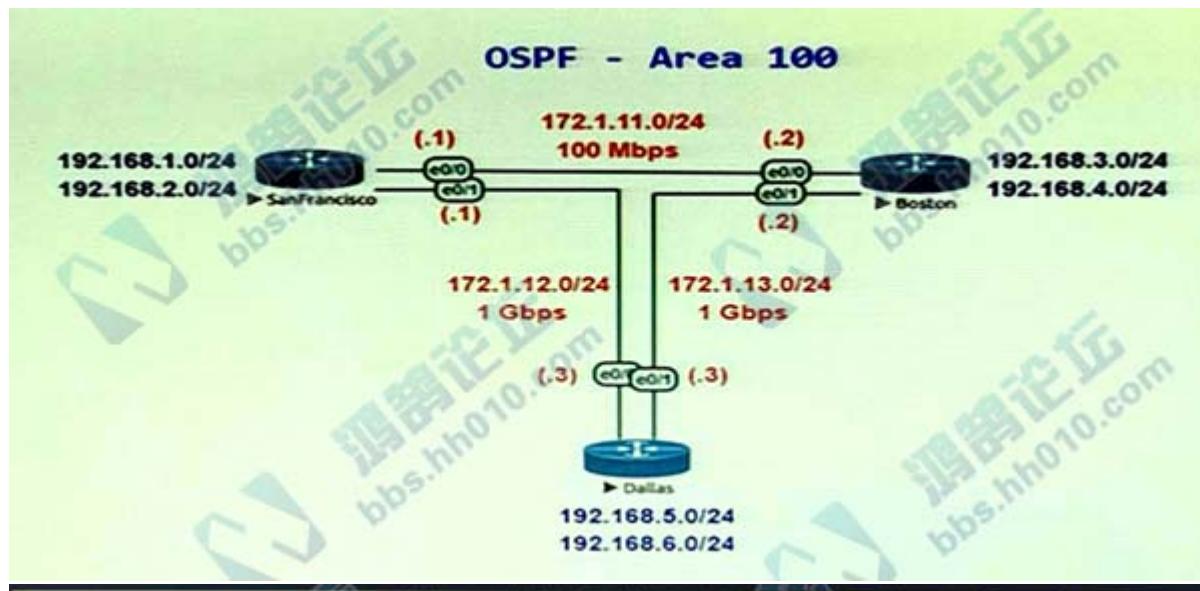
**QUESTION 192**

Which two protocols work in the control plane of IP routers across the MPLS cloud? (Choose two.)

- A. ECMP
- B. LSP
- C. LDP
- D. MPLS OAM
- E. RSVP

**Correct Answer:** CE

**QUESTION 193**



#### Show IP Route – San Francisco Router

Gateway of last resort is not set

```

C 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
O 172.1.13.0/24 [110/11] via 172.1.11.2, 00:02:34, Ethernet0/0
192.168.1.0/24 is variably subnetted, 2 subnets, 2 masks
C 192.168.1.0/24 is directly connected, Loopback0
L 192.168.1.1/32 is directly connected, Loopback0
192.168.2.0/24 is variably subnetted, 2 subnets, 2 masks
C 192.168.2.0/24 is directly connected, Loopback1
L 192.168.2.1/32 is directly connected, Loopback1
O 192.168.3.0/24 [110/11] via 172.1.11.2, 00:00:44, Ethernet0/0
O 192.168.4.0/24 [110/11] via 172.1.11.2, 00:00:34, Ethernet0/0
O 192.168.5.0/24 [110/11] via 172.1.12.3, 00:00:34, Ethernet0/1
O 192.168.6.0/24 [110/11] via 172.1.12.3, 00:00:24, Ethernet0/1

```

| Show IP Route – Boston            |                                                                                                                |
|-----------------------------------|----------------------------------------------------------------------------------------------------------------|
| Gateway of last resort is not set |                                                                                                                |
| O                                 | 172.1.0.0/16 is variably subnetted, 5 subnets, 2 masks                                                         |
| O                                 | 172.1.11.0/24 [110/11] via 172.1.13.2, 00:04:44, Ethernet0/1<br>[110/11] via 172.1.12.1, 00:04:44, Ethernet0/0 |
| C                                 | 172.1.12.0/24 is directly connected, Ethernet0/0                                                               |
| 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                                                                |

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

- A. All Routers
 

```
router ospf 1
 auto-cost reference-bandwidth 100
```
- B. SanFrancisco Router
 

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

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

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

**Correct Answer: C**

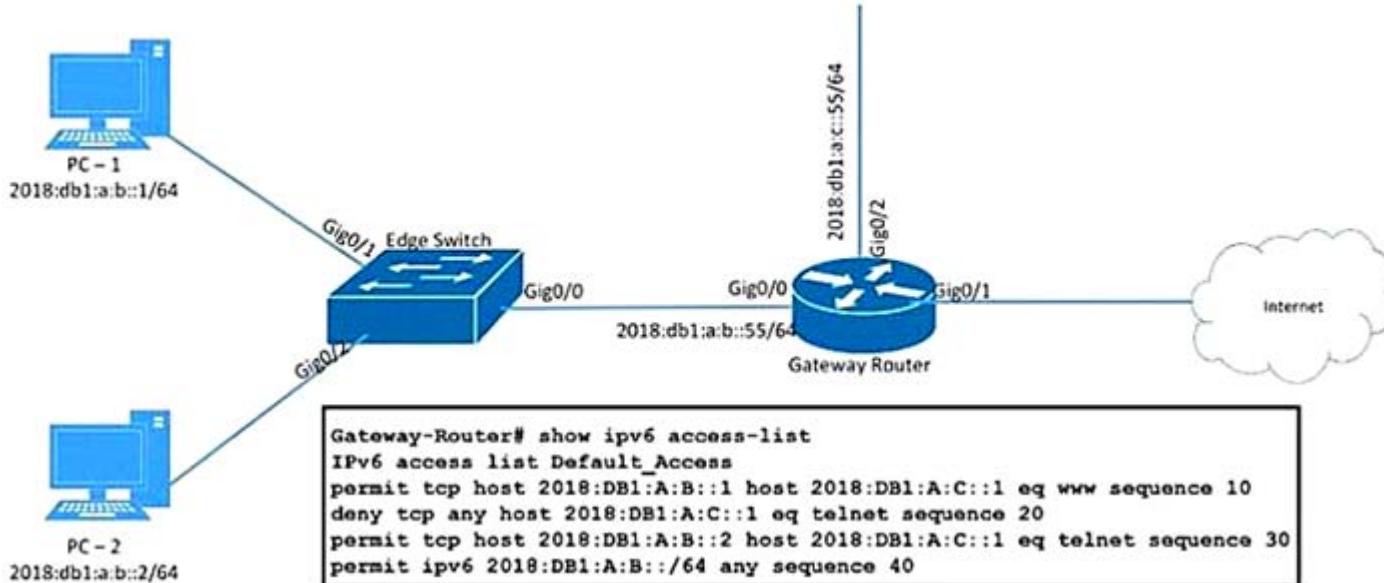
**QUESTION 194**

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**

**QUESTION 195**



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

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

**Correct Answer:** D

**QUESTION 196**

Which protocol does MPLS use to support traffic engineering?

- A. BGP
- B. RSVP
- C. TDP
- D. LDP

**Correct Answer:** B

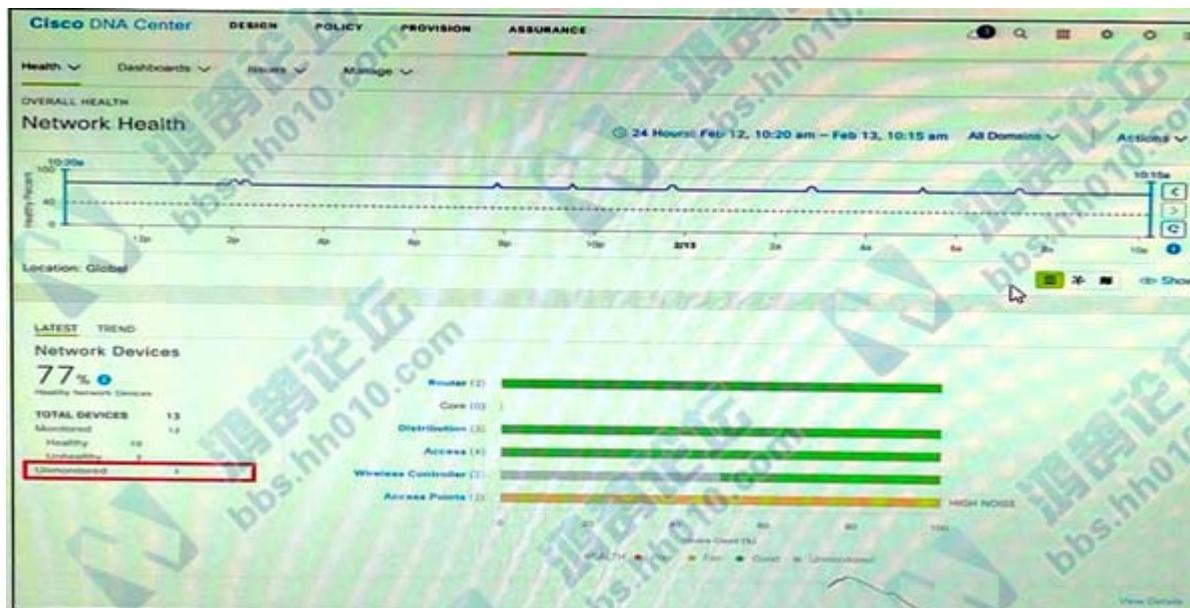
**QUESTION 197**

How does an MPLS Layer 3 VPN function?

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

**Correct Answer:** B

**QUESTION 198**



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

**Correct Answer:** C

#### QUESTION 199

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 filtering | packet is encapsulated in MPLS with the option of copying the IP precedence to EXP bits    |
| entropy label                   | controls the amount of memory used to store LDP label bindings advertised by other devices |

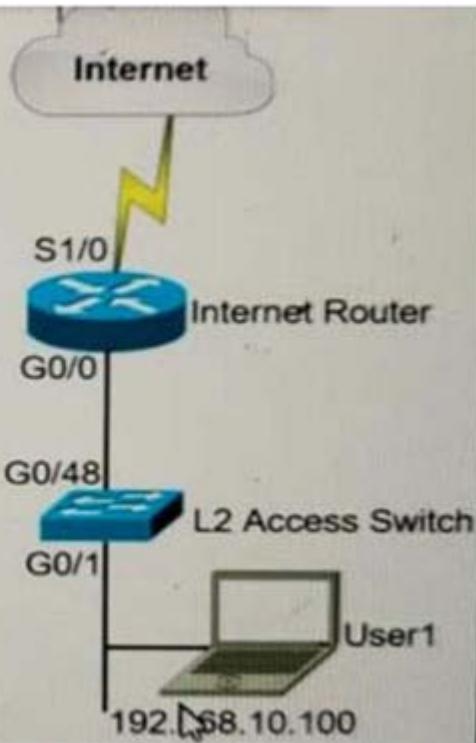
**Correct Answer:**

|  |                                 |
|--|---------------------------------|
|  | entropy label                   |
|  | implicit null label             |
|  | explicit null label             |
|  | inbound label binding filtering |

#### **QUESTION 200**

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

```
access-list 101 permit tcp 192.168.10.0
0.0.0.255 any eq 80
access-list 101 permit tcp 192.168.10.0
0.0.0.255 any eq 443
access-list 101 deny ip any any log
!
interface Serial1/0
ip address 200.193.22.94 255.255.255.252
ip access-group 101 in
```



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

**Correct Answer:** D

**QUESTION 201**

Refer to the exhibit. 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?

```
Router#show ip eigrp interfaces
EIGRP-IPv4 Interfaces for AS(1)
```

| Interface | Xmit Peers | 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
```

- 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

**QUESTION 202**

```
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
!
```

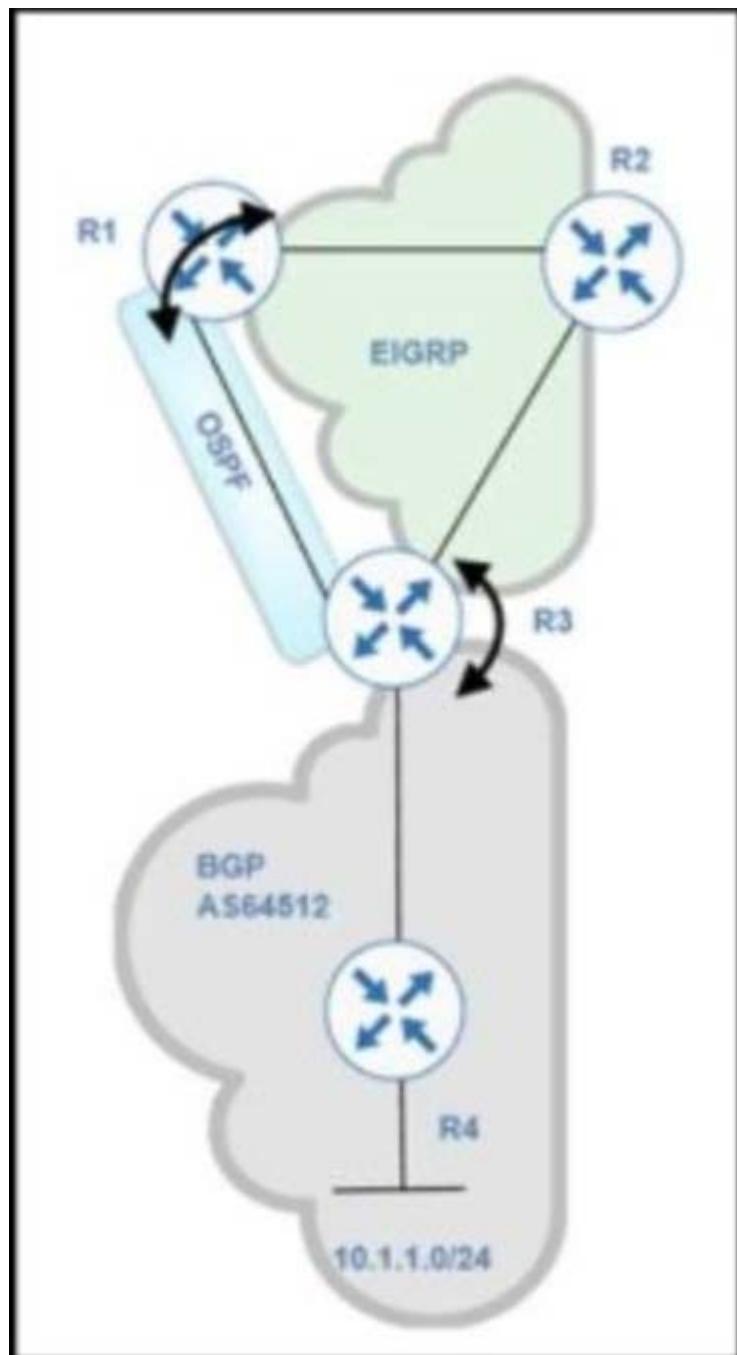
Refer to the exhibit. Which set of commands restore reachability to loopback0?

- 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

**QUESTION 203**



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. Reduce frequent OSPF SPF calculations on R3 that cause a high CPU and packet loss on traffic traversing R3
- 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. Tag the 10.1.1.0/24 prefix and deny the prefix from being redistributed into OSPF on R1.
- D. Place an OSPF distribute-list outbound on R3 to block the 10.1.0/24 prefix from being advertised back to R3.

**Correct Answer:** C

**QUESTION 204**

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

**Correct Answer:** D

**QUESTION 205**

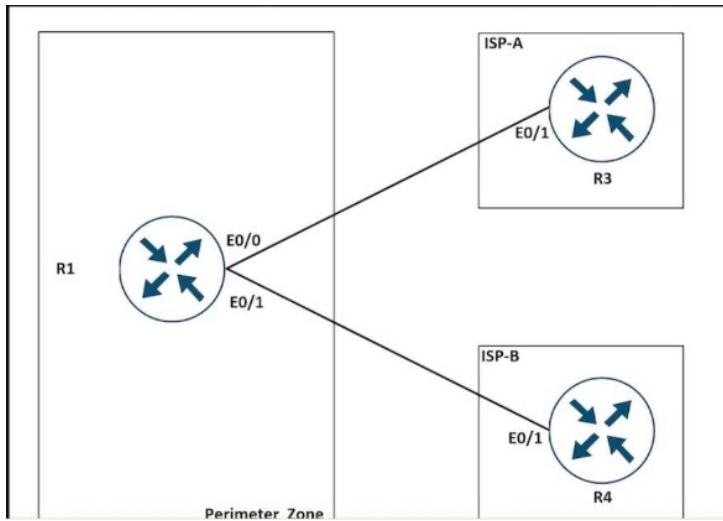
```
P 172.29.0.0/16, 1 successors, FD is 307200, serno 2
 via 192.168.254.2 (307200/281600), FastEthernet0/1
 via 192.168.253.2 (410200/352300), FastEthernet0/0
```

Refer to the exhibit. 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

**QUESTION 206**



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

**Correct Answer:** B

**QUESTION 207**



Refer to the exhibit Which action resolves the adjacency issue?

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

**Correct Answer:** C

#### QUESTION 208

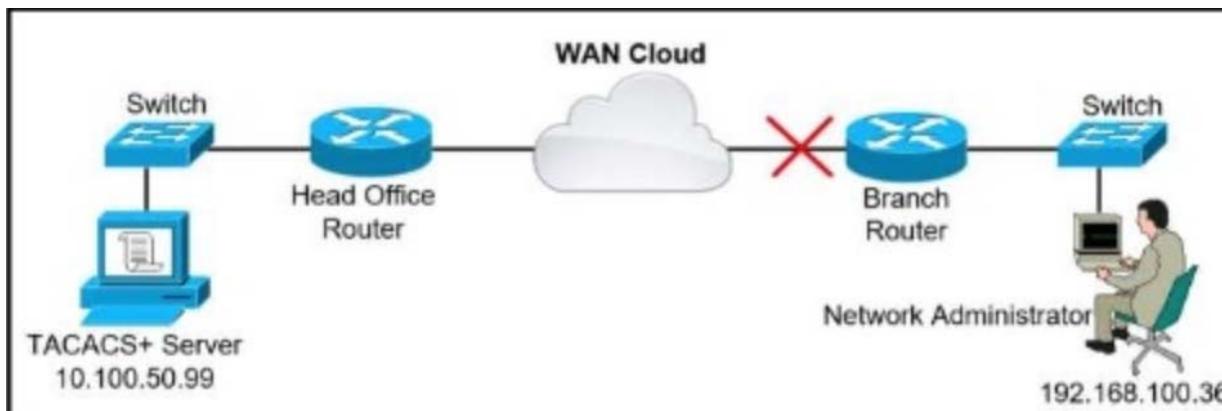
How is VPN routing information distributed in an MPLS network?

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

**Correct Answer:** D

#### QUESTION 209

Refer to the exhibit.



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 CI$co123

```

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

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

**Correct Answer:** A

#### QUESTION 210

Refer to the exhibit. 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?

```
admin@liunx:~$ scp script.py admin@198.51.100.64:script.py
```

Pssword:

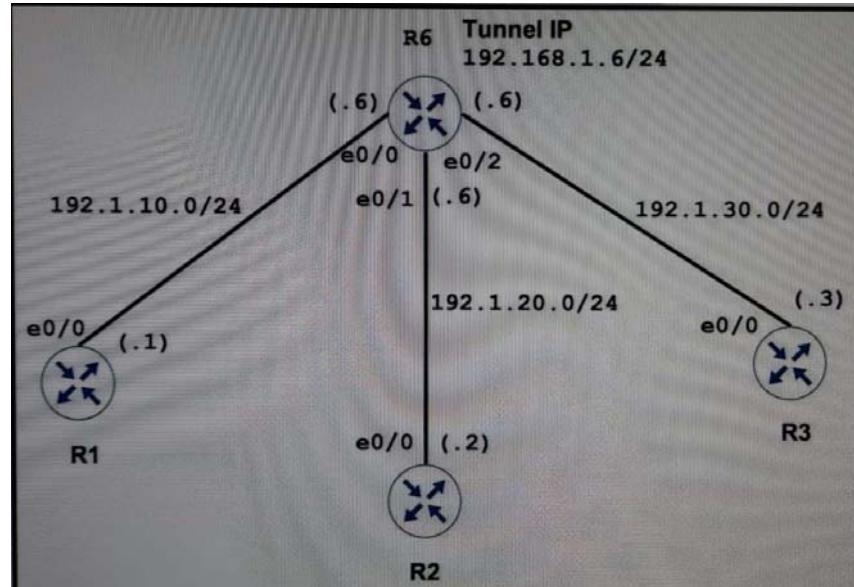
Administratively disabled.

```
admin@linux:~$ Connection to 198.51.100.64 closed by remote host.
```

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

**Correct Answer:** D

#### QUESTION 211



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 e0/0
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
```
- 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 e0/1  
tunnel mode gre multipoint  
ip nhrp nhs 192.168.1.6  
ip nhrp map 192.168.1.6 192.1.10.6
- D. interface Tunnel1  
ip address 192.168.1.1 255.255.255.0  
tunnel source e0/0  
tunnel mode gre multipoint  
ip nhrp nhs 192.168.1.5  
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

**Correct Answer:** A

**QUESTION 212**

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

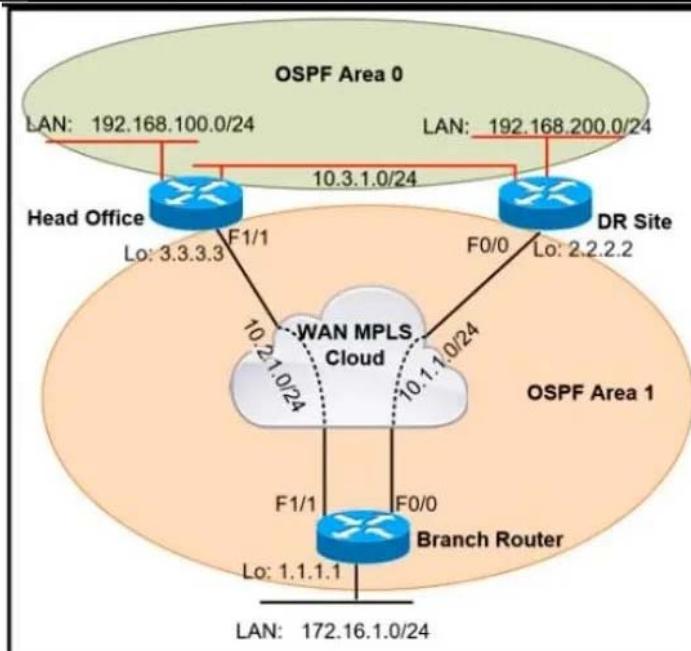
- A. Dead Peer Detection keepalives
- B. BFD
- C. OSPF demand circuit
- D. SSO

**Correct Answer:** B

**QUESTION 213**

```
Branch-Router#
*Nov 29 15:20:22.415: OSPF-1 HELLO Fa1/1: Rcv hello from 3.3.3.3 area 1 10.2.1.3
*Nov 29 15:20:23.195: OSPF-1 HELLO Fa1/1: Send hello to 224.0.0.5 area 1 from 10.2.1.1
```

```
Branch-Router#
*Nov 29 15:20:27.955: OSPF-1 HELLO Fa0/0: Rcv hello from 2.2.2.2 area 1 10.1.1.2
*Nov 29 15:20:27.955: OSPF-1 HELLO Fa0/0: Mismatched hello parameters from 10.1.1.2
*Nov 29 15:20:27.955: OSPF-1 HELLO Fa0/0: Dead R 40 C 40, Hello R 10 C 10 Mask R 255.255.255.0 C 255.255.255.240
*Nov 29 15:20:28.311: OSPF-1 HELLO Fa0/0: Send hello to 224.0.0.5 area 1 from 10.1.1.1
```



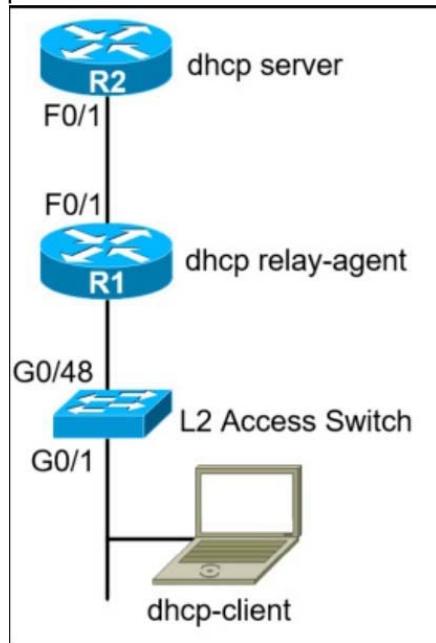
Refer to the exhibit. A network administrator reviews the branch router console log to troubleshoot the OSPF adjacency issue with the DR router. Which action resolves this issue?

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

**Correct Answer: B**

**QUESTION 214**

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 Fa0/1 interface on R2, the DHCP server assigns an IP address from the DHCP pool to the PC. Which two commands resolve this issue? (Choose two.)



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

**Correct Answer:** AB

**QUESTION 215**

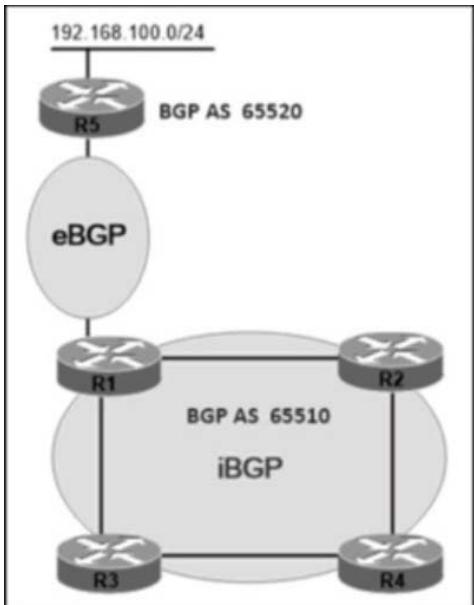
```
Route-map PBR, permit, sequence 10
Match clauses:
 ip address (access-lists): FILTER_ACL
Set clauses:
 ip next-hop verify-availability 209.165.202.129 1 track 100 [down]
 ip next-hop verify-availability 209.165.202.131 2 track 200 [up]
Policy routing matches: 0 packets, 0 bytes
route-map PBR, deny,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

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

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

**Correct Answer:** C

#### **QUESTION 216**



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

**Correct Answer:** C

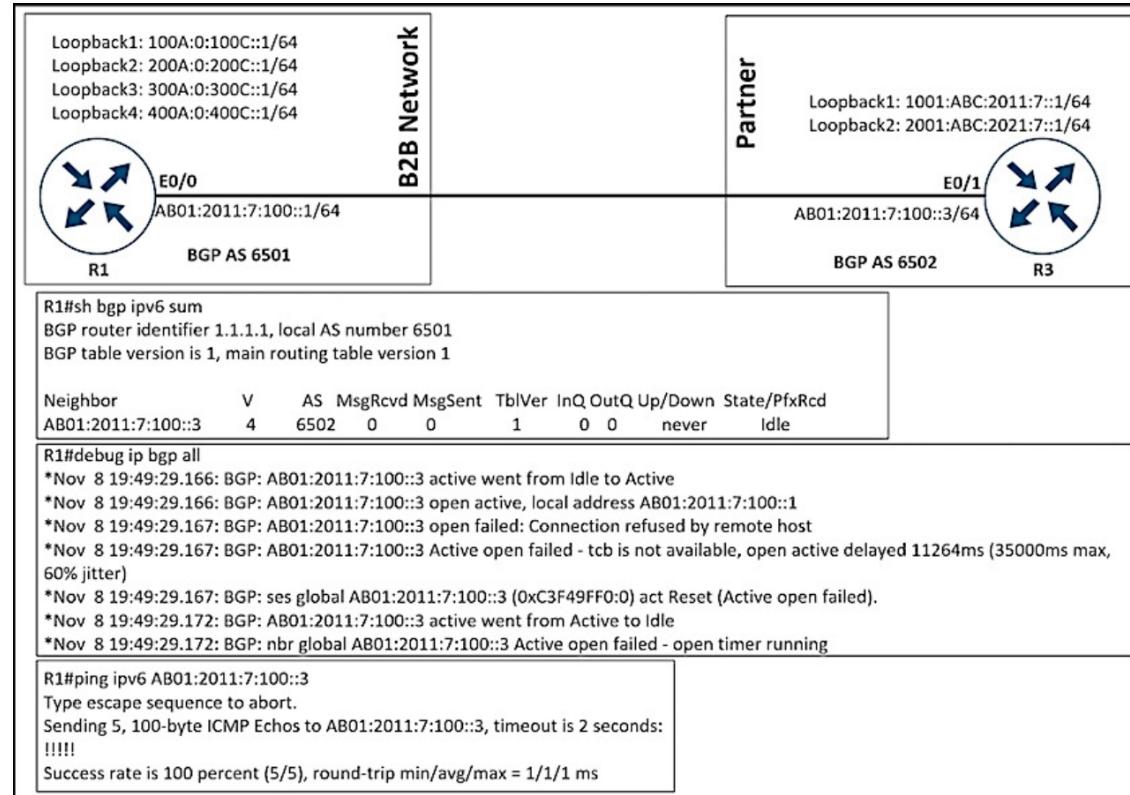
#### QUESTION 217

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. Shape 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. Police 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: C**

**QUESTION 218**



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. **R1**  
router bgp 6501  
address-family ipv6  
neighbor AB01:2011:7:100::3 activate
- B. **R1**  
router bgp 6501  
neighbor AB01:2011:7:100::3 ebgp-multihop 255

- C. R3  
**router bgp 6502**  
**neighbor AB01:2011:7:100:1 ebgp-multipath 255**
- D. R3  
**router bgp 6502**  
**address-family ipv6**  
**neighbor AB01:2011:7:100::1 activate**

**Correct Answer: D**

#### QUESTION 219



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. R4  
**time-range Contractor**  
**no periodic weekdays 17:00 to 23:59**  
**periodic daily 8:00 to 16:30**
- B. R1  
**time-range Contractor**  
**no periodic weekdays 8:00 to 16:30**  
**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

**QUESTION 220**

```
*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
```

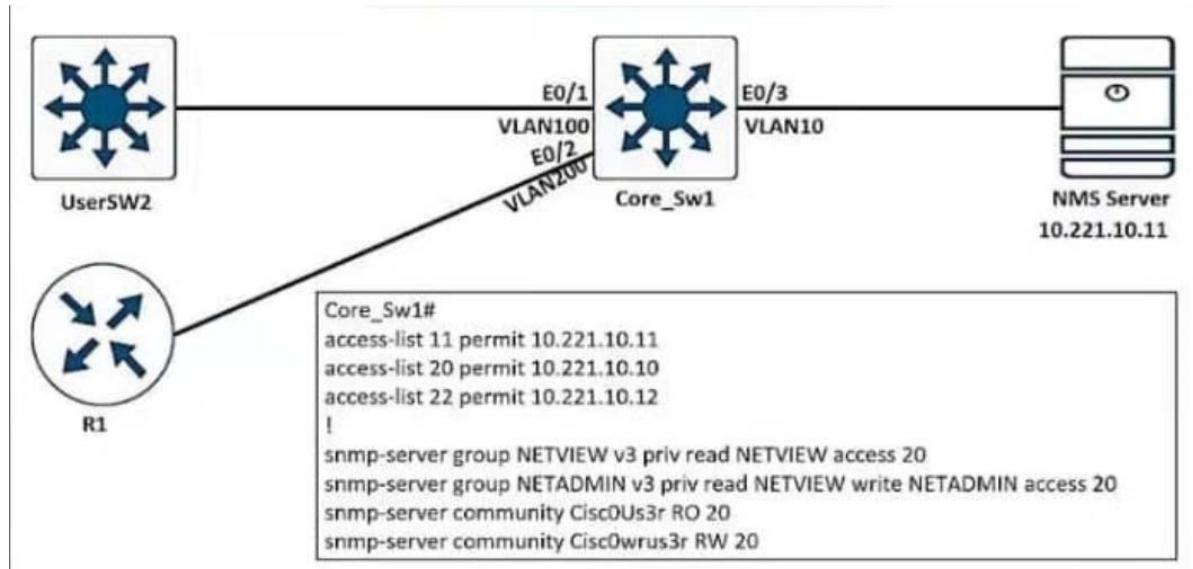
```
*Sep 26 19:50:43.508: SNMP: Packet sent via UDP to 192.168.1.2
process_mgmt_req_int: UDP packet being de-queued
```

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

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

**Correct Answer:** BE

**QUESTION 221**

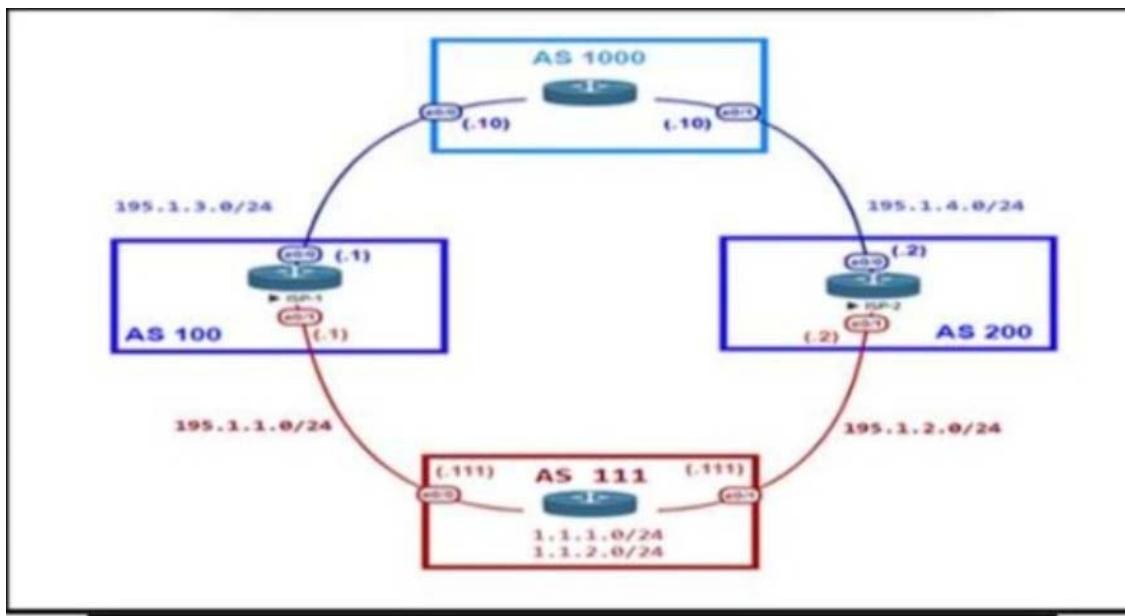


Refer to the exhibit. An engineer configured SNMP communities on the Core\_Sw1, but the SNMP server cannot obtain information from Core\_Sw1. Which configuration resolves this issue?

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

**Correct Answer:** A

**QUESTION 222**



## 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

```

Refer to the exhibit. 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 195.1.2.2 as_override  
no neighbor 195.1.1.1 allowas-in
```
- C.

```
router bgp 111  
neighbor 195.1.1.1 as_override  
no neighbor 195.1.2.2 allowas-in
```
 - D.

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

Correct Answer: D

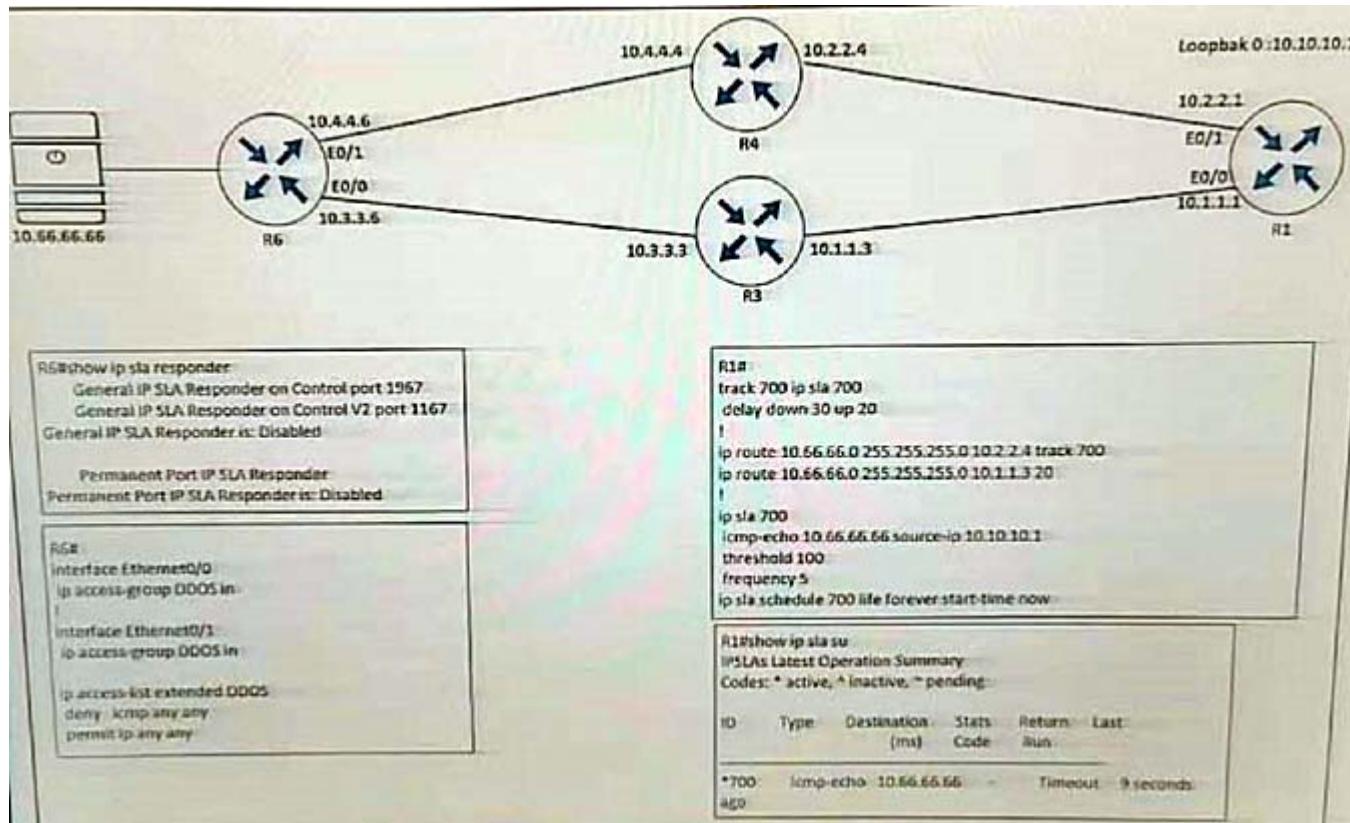
QUESTION 223

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

QUESTION 224



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

QUESTION 225

An engineer is implementing a coordinated change with a server team. As part of the change, the engineer must configure interface GigabitEthernet2 in an

existing VRF "RED" then move the interface to an existing VRF "BLUE" when the server team is ready. The engineer configured interface GigabitEthernet2 in VRF "RED"

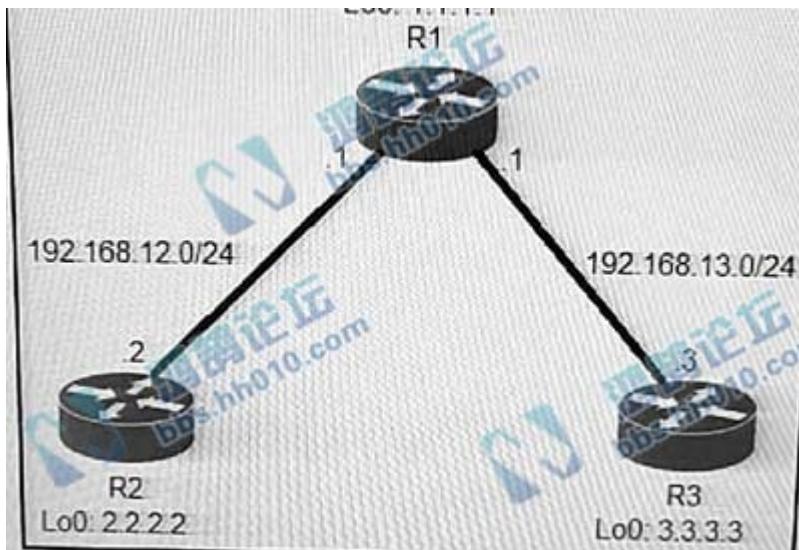
```
interface GigabitEthernet2
vrf forwarding RED
ip address 10.0.0.0 255.255.255.254
negotiation auto
```

Which configuration completes the change?

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

Correct Answer: B

QUESTION 226



Refer to the exhibit An engineer has configured R1 as EIGRP stub router. After the configuration, router R3 failed to reach to R2 loopback address Which action advertises R2 loopback back into the R3 routing table?

- A. Add a static route for R2 loopback address in R1 and redistribute it to advertise to R3.
- B. Use a leak map on R3 that matches the required prefix and apply it with the EIGRP stub feature.
- C. Add a static null route for R2 loopback address in R1 and redistribute it to advertise to R3
- D. Use a leak map on R1 that matches the required prefix and apply it with the **distribute list** command toward R3.

Correct Answer: D

QUESTION 227

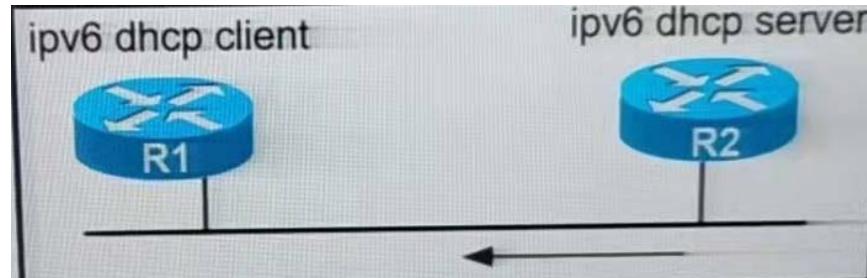
```
ipv6 access-list INTERNET
permit ipv6 2001:DB8:AD59:BA21::/64 2001:DB8:C0AB:BA14::/64
permit tcp 2001:DB8:AD59:BA21::/64 2001:DB8:C0AB:BA13::/64 eq telnet
permit tcp 2001:DB8:AD59:BA21::/64 any eq http
permit ipv6 2001:DB8:AD59::/48 any
deny ipv6 any any log
```

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

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

Correct Answer: C

QUESTION 228



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

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

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

- A. **service dhcp command on DHCP server**

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

Correct Answer: D

QUESTION 229



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

R2

```
route-map E20 permit 10
  set tag 111
!
```

```
router eigrp 111
  redistribute ospf 1 metric 10 10 10 10 10
!
```

```
router ospf 1
  redistribute eigrp 111 route-map E20 subnets
```

R4

```
router rip
  redistribute ospf 1 metric 1
```

A. **route-map O2R deny 10**
match tag 111

```
  router rip
    redistribute ospf 1 route-map O2R metric 1
```

B. **R2**

```
  route-map E20 deny 20
  R4
  route-map O2R deny 10
```

```
match tag 111
!
router rip
redistribute ospf 1 route-map O2R metric 1
```

- C. R4
 - route-map O2R deny 10
 - match tag 111
 - route-map O2R permit 20
 - !
 - router rip
 - redistribute ospf 1 route-map O2R metric1
- D. R4
 - route-map O2R permit 10
 - match tag 111
 - route-map O2R deny 20
 - !
 - router rip
 - redistribute ospf 1 route map O2R metric 1

Correct Answer: C

QUESTION 230

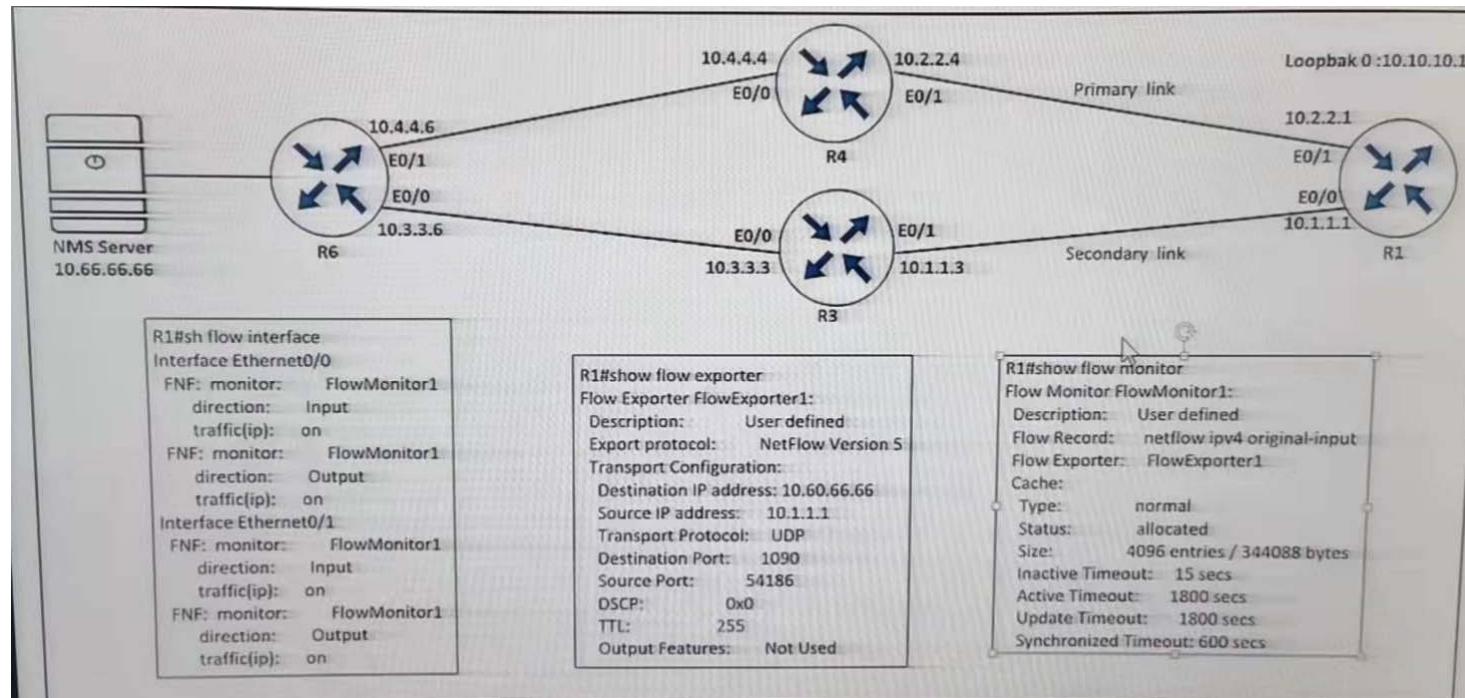
```
*17:40:07.826: AAA/BIND(00000055): Bind i/f
*17:40:07.826: AAA/AUTHEN/LOGIN (00000055): Pick method list 'default'
*17:40:07.826: TPLUS: Queuing AAA Authentication request 85 for processing
*17:40:07.826: TPLUS(00000055) login timer started 1020 sec timeout
*17:40:07.826: TPLUS: processing authentication start request id 85
*17:40:07.826: TPLUS: Authentication start packet created for 85()
*17:40:07.826: TPLUS: Using server 10.106.60.182
*17:40:07.826: TPLUS(00000055)/0/NB_WAIT/225FE2DC: Started 5 sec timeout
*17:40:07.830: TPLUS(00000055)/0/NB_WAIT: socket event 2
*17:40:07.830: TPLUS(00000055)/0/NB_WAIT: wrote entire 38 bytes request
*17:40:07.830: TPLUS(00000055)/0/READ: socket event 1
*17:40:07.830: TPLUS(00000055)/0/READ: Would block while reading
*17:40:07.886: TPLUS(00000055)/0/READ: socket event 1
*17:40:07.886: TPLUS(00000055)/0/READ: read entire 12 header bytes (expect 6 bytes data)
*17:40:07.886: TPLUS(00000055)/0/READ: socket event 1
*17:40:07.886: TPLUS(00000055)/0/READ: read entire 18 bytes response
*17:40:07.886: TPLUS(00000055)/0/225FE2DC: Processing the reply packet
*17:40:07.886: TPLUS: received bad AUTHEN packet: length = 6, expected 43974
*17:40:07.886: TPLUS: Invalid AUTHEN packet (check keys).
```

Refer to the exhibit. An engineer is troubleshooting a TACACS problem. Which action resolves the issue?

- A. Configure a matching TACACS server IP
- B. Generate authentication from a relative source interface
- C. Configure a matching preshared key
- D. Apply a configured AAA profile to the VTY

Correct Answer: C

QUESTION 231

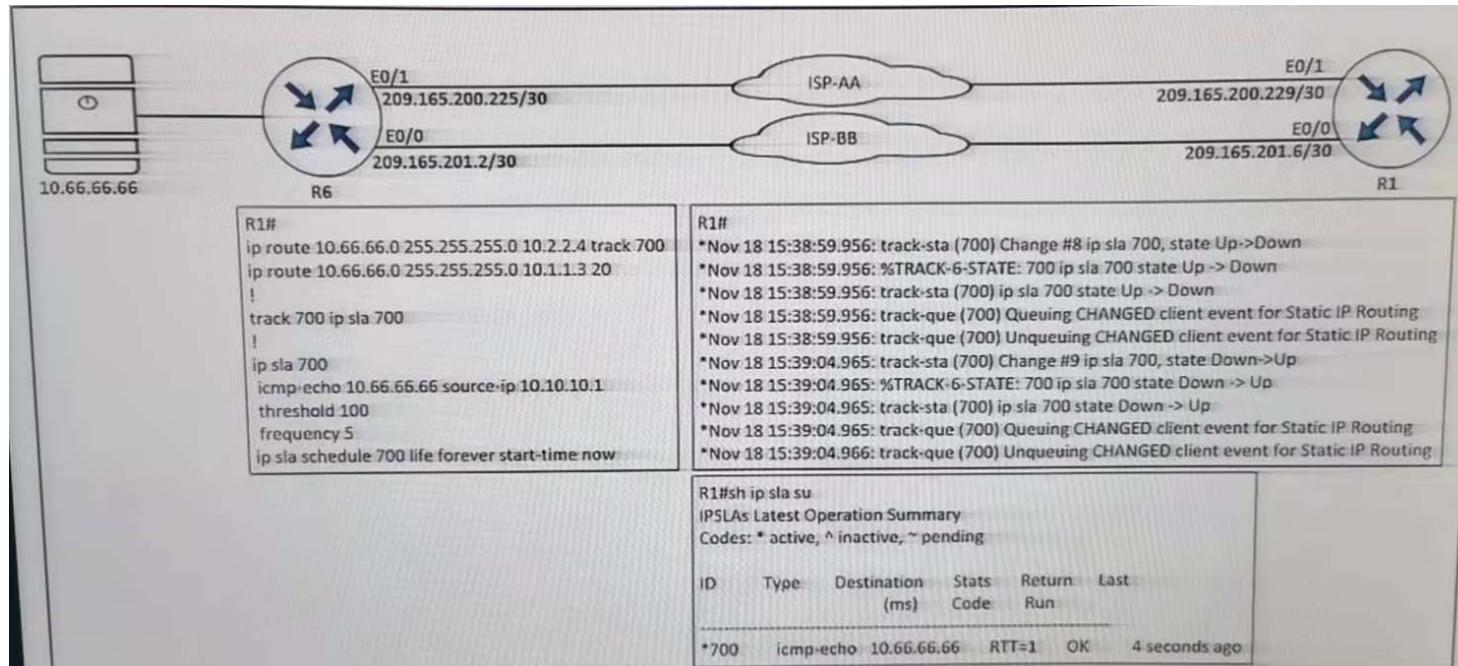


Refer to the exhibit An engineer configured NetFlow on R1 but the flows do not reach the NMS sever from R1. Which configuration resives this issue?

- A. **R1(config)#flow monitor FlowMonitor1**
R1(config-flow-monitor)#destination 10.66.66.66
- B. **R1(config)#interface Ethernet0/1**
R1(config-if)#ip flow monitor Flowmonitor1 input
R1(config-if)#ip flow monitor Flowmonitor1 output
- C. **R1(config)#flow exporter FlowExporter1**
R1(config-flow exporter)#destination 10.66.66.66
- D. **R1(config)#interface Ethernet0/0**
R1(config-if)#ip flow monitor Flowmonitor1 input
R1(config-if)#ip flow monitor Flowmonitor1 output

Correct Answer: C

QUESTION 232

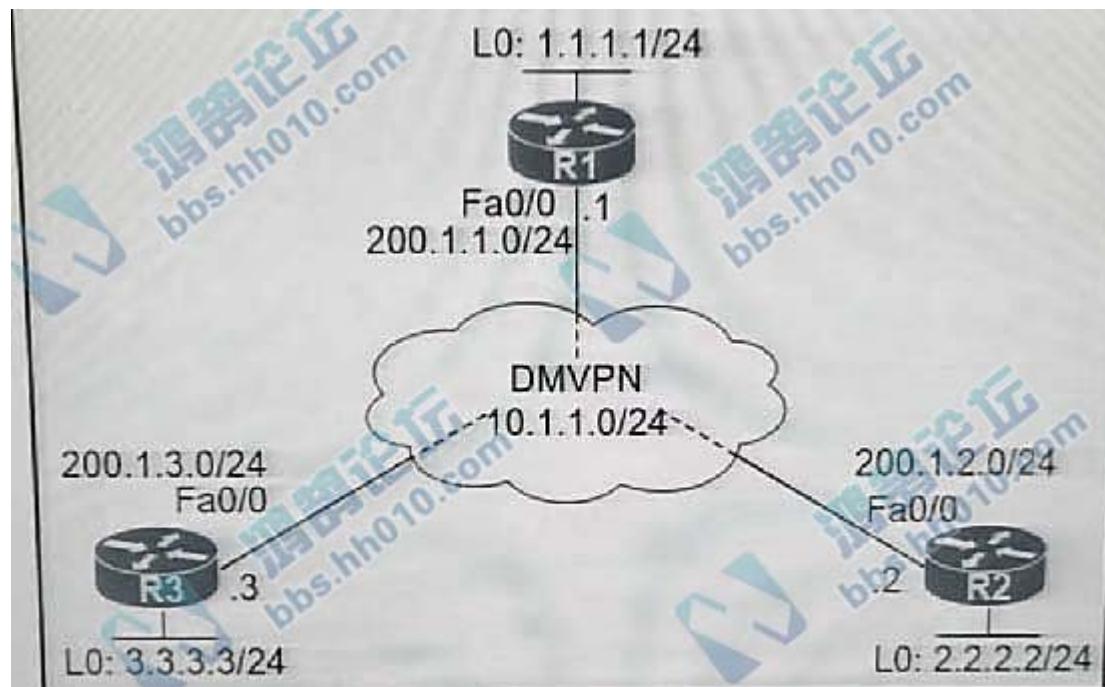


Refer to the exhibit. An engineer configured IP SLA on R1 to avoid the ISP link flapping problem, but it is not working as designed. IP SLA should wait 30 seconds before switching traffic to a secondary connection and then revert to the primary link after waiting 20 seconds, when the primary link is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

- A. R1(config)#ip sla 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

QUESTION 233



R2:

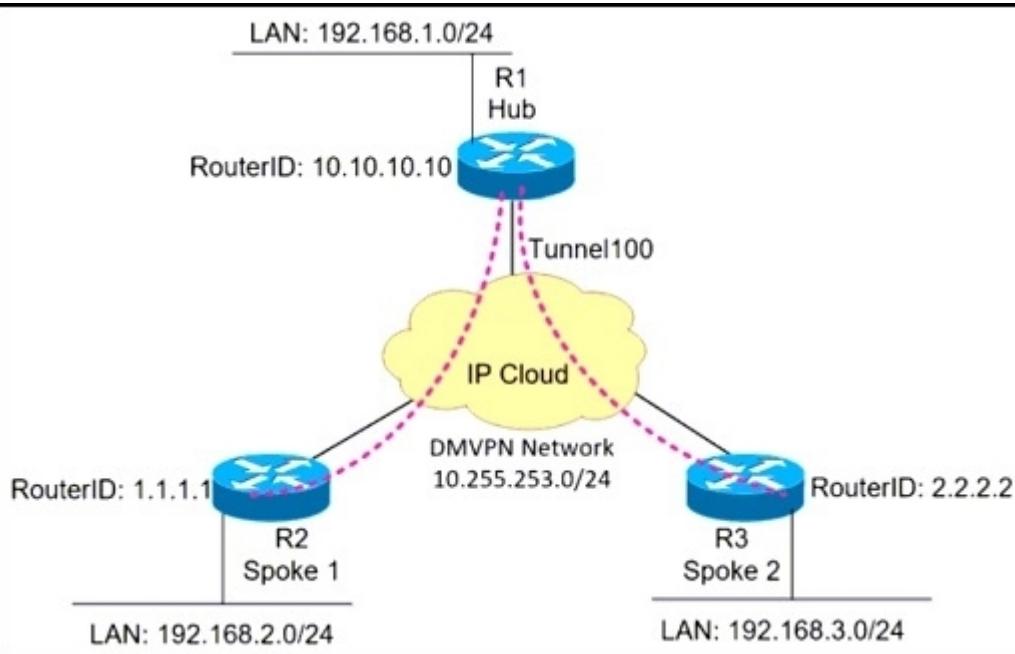
```
=====
R2(config)# crypto isakmp policy 10
R2(config-isakmp)# hash md5
R2(config-isakmp)# authentication pre-share
R2(config-isakmp)# group 2
R2(config-isakmp)# encryption 3des
R2(config)# crypto ipsec transform-set TSET esp-des esp-md5-hmac
R2(cfg-crypto-trans)# mode transport
R2(config)# crypto ipsec profile TST
R2(ipsec-profile)# set transform-set TSET
R2(config)# interface tunnel 123
R2(config-if)# tunnel protection ipsec profile TST
```

Refer to the exhibit. Which configuration allows spoke-to-spoke communication using loopback as a tunnel source?

- A. Configure **crypto isakmp key cisco address 0.0.0.0** on the hub.
- B. Configure **crypto isakmp key cisco address 200.1.0.0 255.255.0.0** on the hub.
- C. Configure **crypto isakmp key cisco address 0.0.0.0** on the spokes
- D. Configure **crypto isakmp key cisco address 200.1.0.0 255.255.0.0** on the spokes

Correct Answer: C

QUESTION 234



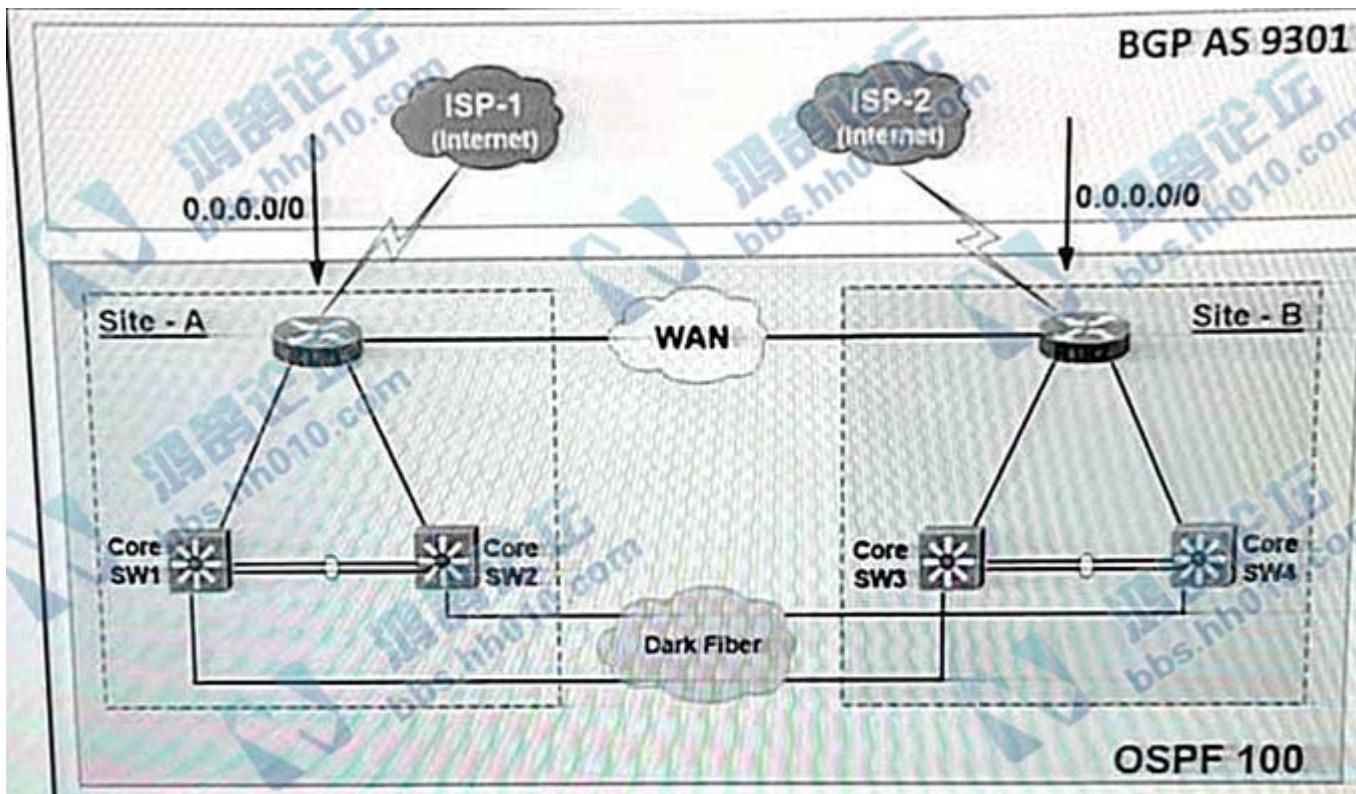
```
*Mar 1 17:19:04.051: %OSPF-5-ADJCHG: Process 100, Nbr 1.1.1.1 on Tunnel100 from LOADING to FULL, Loading Done
*Mar 1 17:19:06.375: %OSPF-5-ADJCHG: Process 100, Nbr 1.1.1.1 on Tunnel100 from FULL to DOWN, Neighbor Down: Adjacency forced to reset
*Mar 1 17:19:06.627: %OSPF-5-ADJCHG: Process 100, Nbr 2.2.2.2 on Tunnel100 from LOADING to FULL, Loading Done
*Mar 1 17:19:10.123: %OSPF-5-ADJCHG: Process 100, Nbr 2.2.2.2 on Tunnel100 from FULL to DOWN, Neighbor Down: Adjacency forced to reset
*Mar 1 17:19:14.499: %OSPF-5-ADJCHG: Process 100, Nbr 10.10.10.10 on Tunnel100 from LOADING to FULL, Loading Done
*Mar 1 17:19:19.139: %OSPF-5-ADJCHG: Process 100, Nbr 10.10.10.10 on Tunnel100 from EXSTART to DOWN, Neighbor Down: Interface down or detached
*Mar 1 17:01:51.975: %OSPF-4-NONEIGHBOR: Received database description from unknown neighbor 192.168.1.1
*Mar 1 17:01:57.783: OSPF: Rcv LS UPD from 192.168.1.1 on Tunnel100 length 88 LSA count 1
*Mar 1 17:01:57.155: OSPF: Send UPD to 10.255.253.1 on Tunnel100 length 100 LSA count 2
```

Refer to the exhibit A network administrator sets up an OSPF routing protocol for a DMVPN network on the hub router Which configuration command is 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

QUESTION 235

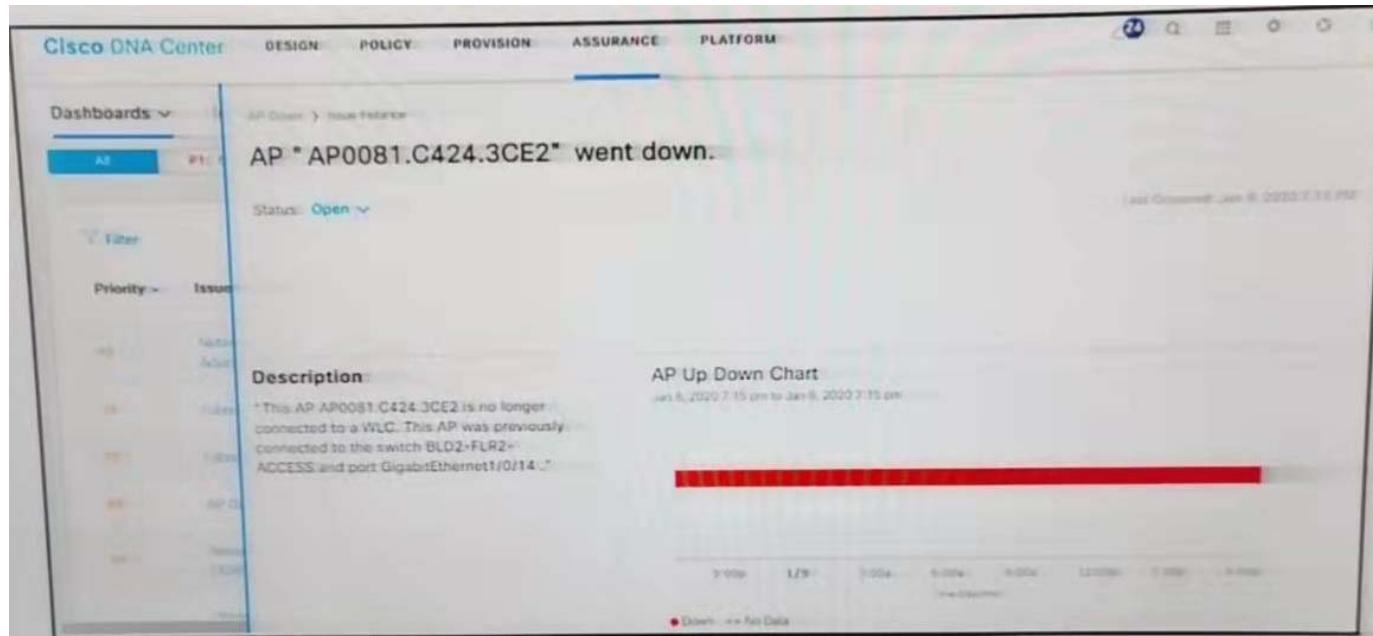


Refer to the exhibit. The Internet traffic should always prefer Site A ISP-1 if the link and BGP connection are up; otherwise, all Internet traffic should go to ISP-2. Redistribution is configured between BGP and OSPF routing protocols, and it is not working as expected. What action resolves the issue?

- 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

QUESTION 236



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 tar interface GigabitEtheret1/0/14**

Correct Answer: A

QUESTION 237

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

QUESTION 238

R1 and R2 are configured as eBGP neighbors. 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.

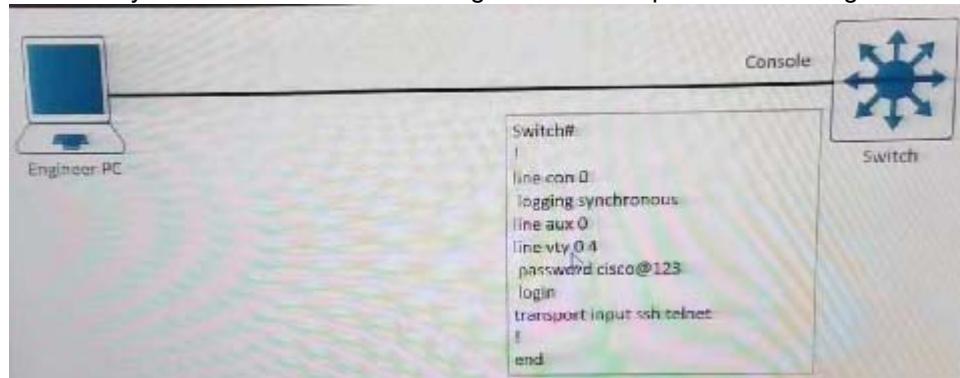
```
access-list 1 deny 172.16.0.0 0.0.254.255
access-list 1 permit any
!
router bgp 100
neighbor 192.168.100.2 remote-as 200
neighbor 192.168.100.2 distribute-list 1 in
```
- D.

```
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

QUESTION 239

Refer to the exhibit 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

QUESTION 240

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.

The administrator has configured this on R1:

```
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 network 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

QUESTION 241

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

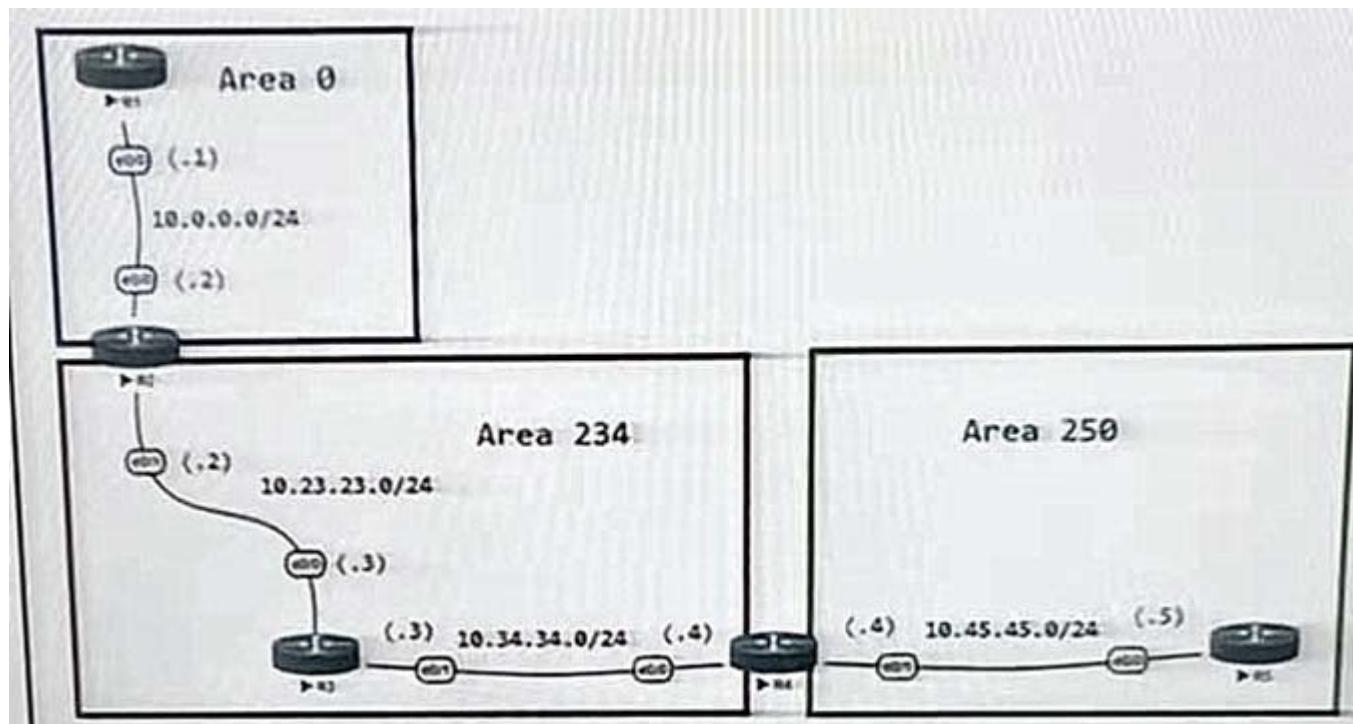
```
aaa new-model
aaa group server radius RADIUS-SERVERS
aaa authentication login default group RADIUS-SERVERS local
aaa authentication enable default group RADIUS-SERVERS enable
aaa authorization exec default group RADIUS-SERVERS if-authenticated
aaa authorization network default group RADIUS-SERVERS 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. 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

QUESTION 242



ABR Configurations

R2

```
router ospf 1
router-id 0.0.0.22
area 234 virtual-link 10.34.34.4
network 10.0.0.0 0.0.0.255 area 0
network 10.2.2.0 0.0.0.255 area 0
network 10.22.22.0 0.0.0.255 area 234
network 10.23.23.0 0.0.0.255 area 234
```

R4

```
router ospf 1
router-id 0.0.0.44
area 234 virtual-link 10.23.23.2
network 10.34.34.0 0.0.0.255 area 234
network 10.44.44.0 0.0.0.255 area 234
network 10.45.45.0 0.0.0.255 area 250
```

Virtual Link Status				
R2 -> sh ip ospf virtual-links				
Virtual Link OSPF_VL0 to router 10.34.34.4 is down				
Run as demand circuit				
DoNotAge LSA allowed.				
Transit area 234				
Topology-MTID	Cost	Disabled	Shutdown	Topology Name
0	65535	no	no	Base
Transmit Delay is 1 sec, State DOWN,				

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-link 10.34.34.4
area 234 virtual-link 0.0.0.44
```

Correct Answer: AE

QUESTION 243

Which mechanism provides traffic segmentation within a DMVPN network?

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

Correct Answer: C

QUESTION 244

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

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

Correct Answer: AC

QUESTION 245

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. by RT

Correct Answer: A

QUESTION 246

```
R1#show ip interface GigabitEthernet0/0 | include drops
```

0 verification drops

0 suppressed verification drops

```
R1#show ip interface GigabitEthernet0/1 | include drops
```

5 verification drops

0 suppressed verification drops

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

QUESTION 247

Which OSI model is used to insert an MPLS label?

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

Correct Answer: D

QUESTION 248

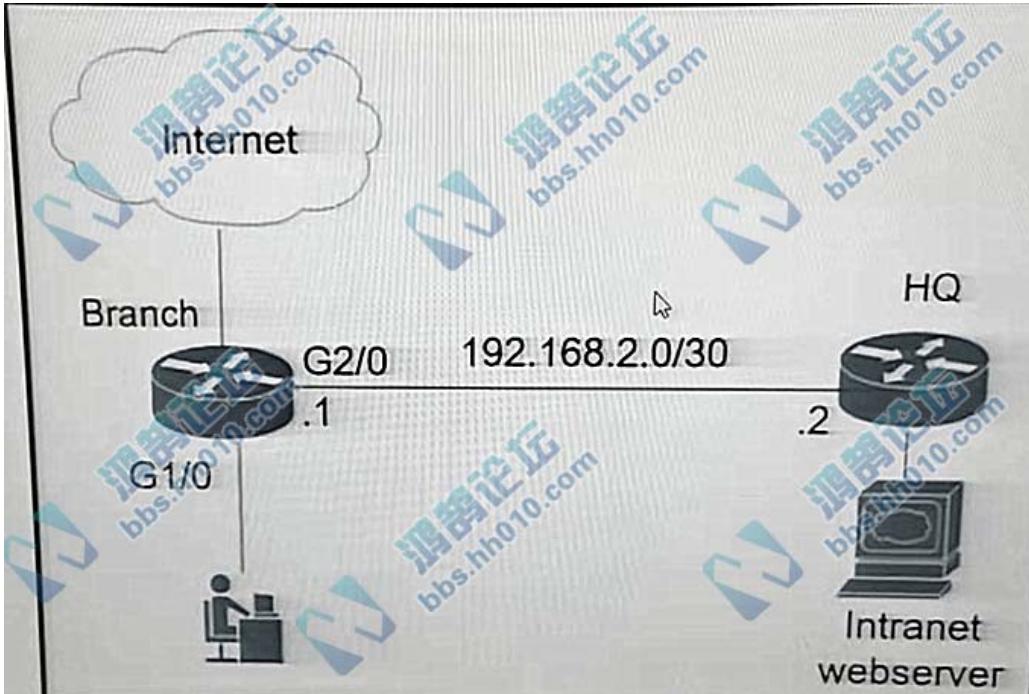
Which function does LDP provide in an MPLS topology?

- A. It enables a MPLS topology to connect multiple VPNs to P routers.
- B. It provides hop-by-hop forwarding in an MPLS topology for LSRs

- C. It exchanges routes for MPLS VPNS across different VRFS.
- D. It provides a means for LSRs to exchange IP routes.

Correct Answer: B

QUESTION 249



er to the exhibit. The branch router is configured with a default route toward the internet and has no routes configured for the HQ site that is connected through interface G2/0. The HQ router is fully configured and does not require changes. Which configuration on the branch router makes the intranet website (TCP port 80) available to the branch office users?

- A. **access-list 100 permit tcp any host intranet-webserver-ip eq 80**

```

!
route-map pbr permit 10
match ip address 100
set ip next-hop 192.168.2.2
!
interface G2/0

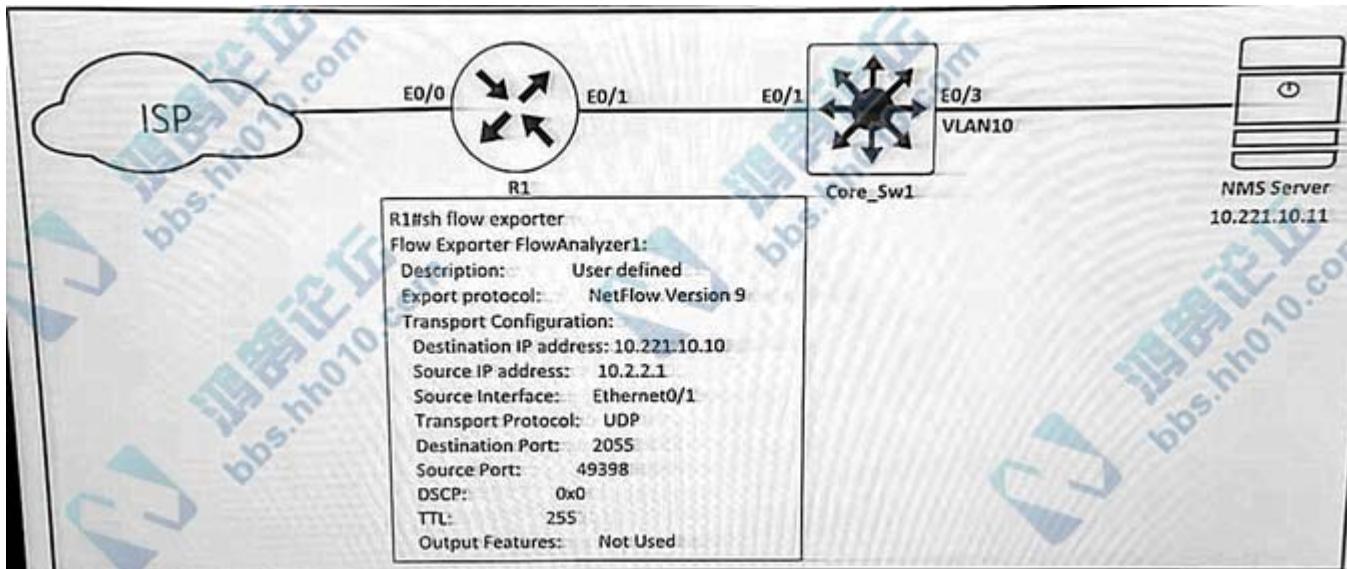
```

```
ip policy route-map pbr
B. access-list 101 permit tcp any any eq 80
access-list 102 permit tcp any host intranet-webserver-ip
!
route-map pbr permit 10
match ip address 101 102
set ip next-hop 192.168.2.2
!
interface G1/0
ip policy route-map pbr
C. access-list 101 permit tcp any any eq 80
access-list 102 permit tcp any host intranet-webserver-ip
!
route-map pbr permit 10
match ip address 101
set ip next-hop 192.168.2.2
route-map pbr permit 20
match ip address 102
set ip next-hop 192.168.2.2
!
interface G2/0
ip policy route-map pbr
D. acceslist 100 permit tcp host intranet-webserverip eq 80 any
!
route-map pbr permit 10
match ip address 100
set ip next-hop 192.168 2.2
!
interface G1/0
ip policy route-map pbr
```

Correct Answer: B

QUESTION 250

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

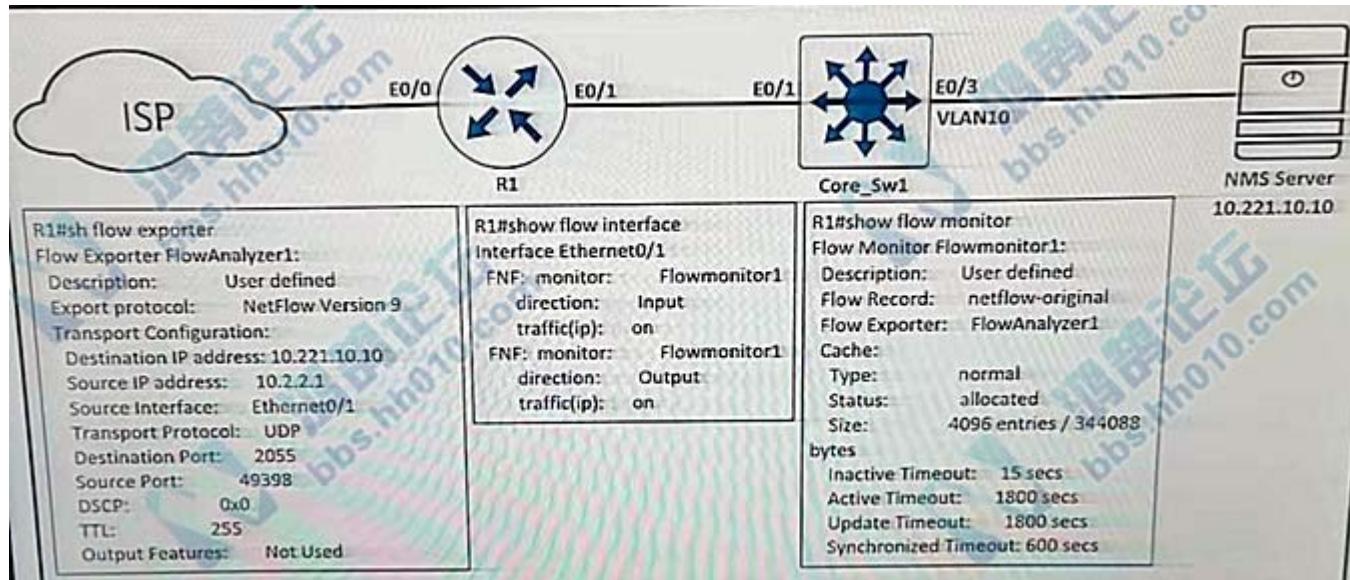


- A. **flow monitor Flowmonitor1**
destination 10.221.10.11
- B. **flow exporter FlowAnalyzer1**
destination 10.221.10.11
- C. **interface Ethernet0/1**
flow-destination 10.221.10.11
- D. **interface Ethernet0/0**
flow-destination 10.221.10.11

Correct Answer: B

QUESTION 251

Refer to the exhibit An engineer configured NetFlow on R1 but the NMS server cannot see the flow from ethernet 0/0 of R1. Which configuration resolves the issue?

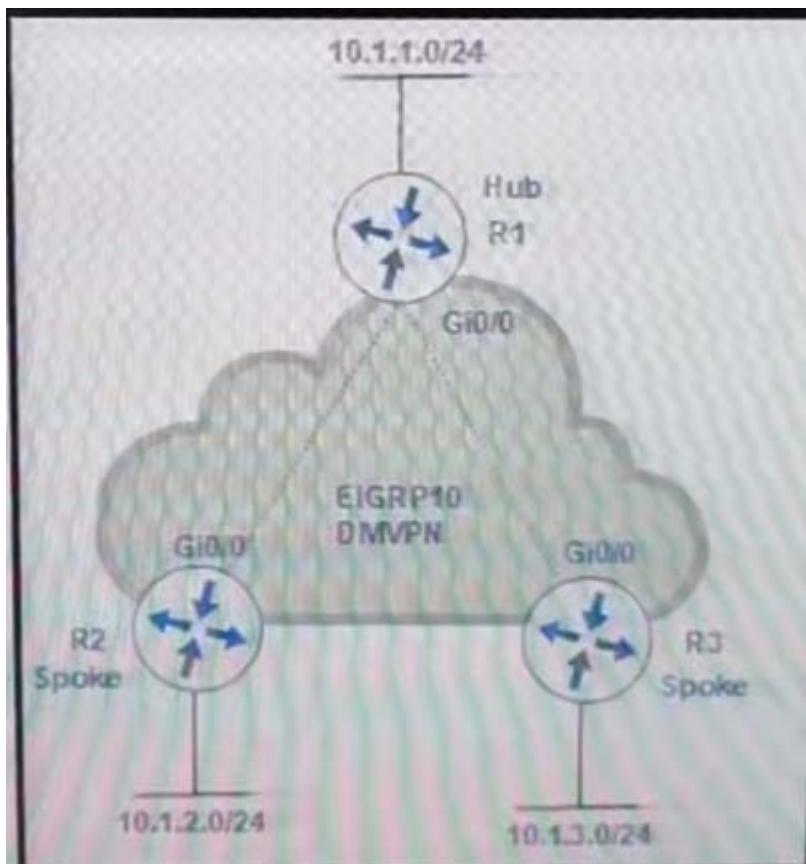


- A. flow monitor Flowmonitor1
source Ethernet0/0
- B. interface Ethernet0/1
ip flow monitor Flowmonitor1 input
ip flow monitor Flowmonitor1 output
- C. interface Ethernet0/0
ip flow monitor Flowmonitor1 input
ip flow monitor Flowmonitor1 output
- D. flow exporter FlowAnalyzer1
source Ethernet0/0

Correct Answer: C

QUESTION 252

- R2#show ip route eigrp | include 10.1.
D 10.1.1.0/24
R3#show ip route eigrp | include 10.1.
D 10.1.1.0/24

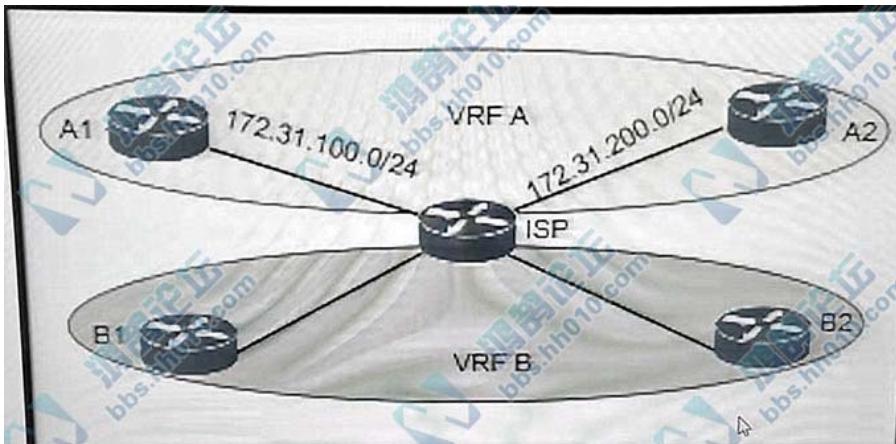


Refer to the exhibit. An engineer configures DMVPN and receives the hub location prefix of 10.1.1.0/24 on R2 and R3. The R3 prefix of 10.1.3.0/24 is not received on R2, and the R2 prefix 10.1.2.0/24 is not received on R3. Which action resolves the issue?

- A. Split horizon prevents the routes from being advertised between spoke routers. It should be disabled with the command **no ip split-horizon eigrp 10** on the tunnel interface of R1
- B. There is no spoke-to-spoke connection DMVPN configuration should be modified to enable a tunnel connection between R2 and R3 and neighbor relationship confirmed by use of the **show ip eigrp neighbor** command
- C. Split horizon prevents the routes from being advertised between spoke routers It should be disabled with the **no ip split-horizon eigrp 10** command on the Gi0/0 interface of R1
- D. There is no spoke-to-spoke connection DMVPN configuration should be modified with a manual neighbor relationship configured between R2 and R3 and confirmed by use of the **show ip eigrp neighbor** command

Correct Answer: A

QUESTION 253



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

- A. A1:
interface fa0/0
description To->ISP
ip vrf forwarding A
ip add 172.31.100.1 255.255.255.0
no shut
!
router ospf 100
net 172.31.100.1 0.0.0.255 area 0
A2:
interface fa0/0
description To->ISP
ip vrf forwarding A
ip add 172.31.200.1 255.255.255.0
no shut
!
router ospf 100
net 172.31.200.1 0.0.0.255 area 0
- B. A1:
interface fa0/0

```
description To->ISP
ip add 172.31.200.1 255.255.255.0
no shut
!
router ospf 100
net 172.31.200.1 0.0.0.255 area 0
A2:
interface fa0/0
description To->ISP
ip add 172.31.100.1 255.255.255.0
no shut
!
router ospf 100
net 172.31.100.1 0.0.0.255 area 0
```

C. A1:

```
interface fa0/0
description To->ISP
ip vrf forwarding A
ip add 172.31.100.1 255.255.255.0
no shut
!
router ospf 100 vrf A
net 172.31.100.1 0.0.0.255 area 0
A2:
interface fa0/0
description To->ISP
ip vrf forwarding A
ip add 172.31.200.1 255.255.255.0
no shut
!
router ospf 100 vrf A
net 172.31.200.1 0.0.0.255 area 0
```

D. A1:

```
interface fa0/0
description To->ISP
ip add 172.31.100.1 255.255.255.0
no shut
!
router ospf 100
net 172.31.100.1 0.0.0.255 area 0
```

A2:

```
interface fa0/0
description To->ISP
ip add 172.31.200.1 255.255.255.0
no shut
!
router ospf 100
net 172.31.200.1 0.0.0.255 area 0
```

Correct Answer: C

QUESTION 254

The network administrator configured R1 for Control Plane Policing so that the inbound Telnet traffic is policed to 100 kbps. This policy must not apply to traffic coming in from 10.1.1.1/32 and 172.16.1.1/32. The administrator has configured this:

```
access-list 101 permit tcp host 10.1.1.1 any eq 23
access-list 101 permit tcp host 172.16.1.1 any eq 23
!
class-map CoPP-TELNET
match access-group 101
!
policy-map PM-CoPP
class CoPP-TELNET
police 100000 conform transmit exceed drop
!
control-plane
service-policy input PM-CoPP
```

The network administrator is not getting the desired results. Which set of configurations resolves this issue?

- A. no access-list 101
access-list 101 deny tcp host 10.1.1.1 any eq 23
access-list 101 deny tcp host 172.16.1.1 any eq 23
access-list 101 permit ip any any
- B. no access-list 101
access-list 101 deny tcp host 10.1.1.1 any eq 23
access-list 101 deny tcp host 172.16.1.1 any eq 23
access-list 101 permit ip any any
!
interface E0/0
service-policy input PM-CoPP

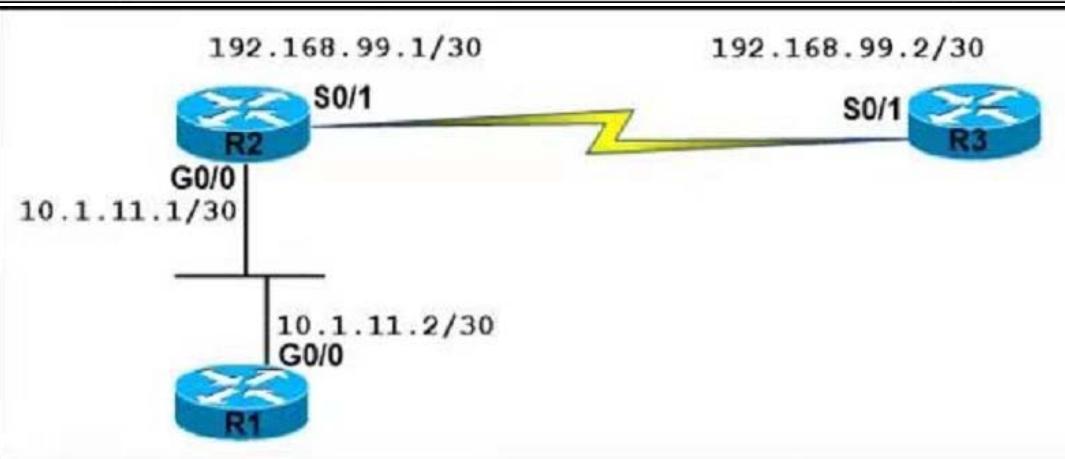
- C. control-plane
 no service-policy input PM-CoPP
 !
 interface Ethernet 0/0
 service-policy input PM-CoPP
- D. control-plane
 no service-policy input PM-CoPP
 service-policy input PM-CoPP

Correct Answer: A

QUESTION 255

R2# show ip ospf neighbor					
Neighbor ID	Pri	State	Dead Time	Address	Interface
192.168.99.2	1	EXCHANGE/-	00:00:36	192.168.99.1	Serial0/1

R3# show ip ospf neighbor					
Neighbor ID	Pri	State	Dead Time	Address	Interface
192.168.99.1	1	EXSTART/-	00:00:33	192.168.99.2	Serial0/1



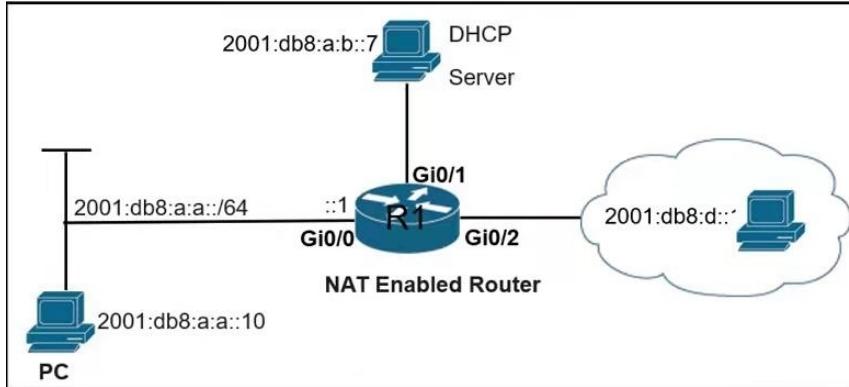
Refer to the exhibit. An OSPF neighbor relationship between R2 and R3 is showing stuck in EXCHANGE/EXSTART state. The neighbor is established between R1 and R2. The network engineer can ping from R2 to R3 and vice versa, but the neighbor is still down. Which action resolves the issue?

- A. Restore the Layer 2/Layer 3 connectivity issue in the ISP network.

- B. Match MTU on both router interfaces or ignore MTU.
- C. Administrative "shut then no shut" both router interfaces
- D. Enable OSPF on the interface, which is required.

Correct Answer: B

QUESTION 256



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

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

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

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

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

Correct Answer: B

QUESTION 257

```
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 2 name ISP2
```

Refer to the exhibit. The administrator noticed that the connection was flapping between the two ISPs instead of switching to ISP2 when the ISP1 failed. Which action resolves the issue?

- A. Include a valid source-interface keyword in the icmp-echo statement.
- B. Reference the track object 1 on the default route through ISP2 instead of ISP1.
- C. Modify the static routes to refer both to the next hop and the outgoing interface.
- D. Modify the threshold to match the administrative distance of the ISP2 route.

Correct Answer: A

QUESTION 258

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

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

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

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

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

Correct Answer: BC

QUESTION 259

```
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?

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

Correct Answer: B

QUESTION 260

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 persist**

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

Correct Answer: A

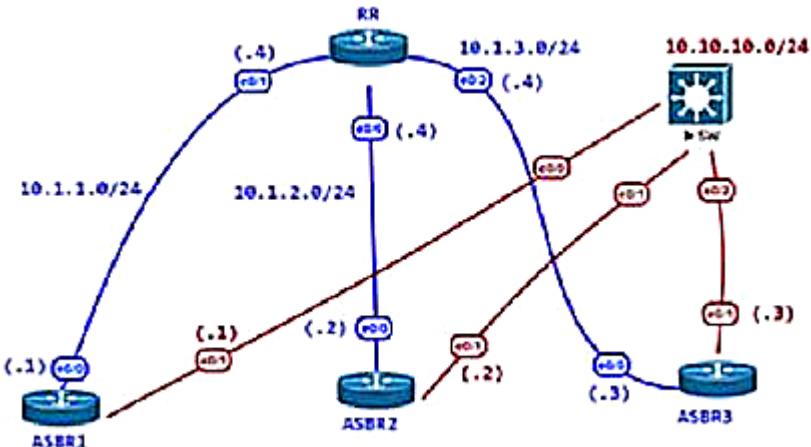
QUESTION 261

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 neighborship?

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

Correct Answer: C

QUESTION 262



RR

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

```
ASBR3
router bgp 100
neighbor 10.1.1.4 remote- as 100
ASBR3
router bgp 100
neighbor 10.1.2.4 remote- as 100
ASBR4
router bgp 100
neighbor 10.1.3.4 remote-as 100
```

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

- A. router bgp 100
neighbor 10.1.1.1 route-reflector-client
neighbor 10.1.2.2 route-reflector-client
neighbor 10.1.3.3 route-reflector-client
- B. router bgp 100
neighbor 10.1.1.1 next-hop-self
neighbor 10.1.2.2 next-hop-self
neighbor 10.1.3.3 next-hop-self
- C. router bgp 100
neighbor 10.1.1.1 update-source Loopback0
neighbor 10.1.2.2 update-source Loopback0
neighbor 10.1.3.3 update-source Loopback0
- D. router bgp 100
neighbor 10.1.1.1 ebgp-multipath
neighbor 10.1.2.2 ebgp-multipath
neighbor 10.1.3.3 ebgp-multipath

Correct Answer: A

QUESTION 263

A company is expanding business by opening 35 branches over the Internet. A network engineer must configure DMVPN at the branch routers to connect with the hub router and allow NHRP to add spoke routers securely to the multicast NHRP mappings automatically. Which configuration meets this requirement at the hub router?

- A. interface Tunnel0
ip address 10.0.0.1 255.255.255.0
ip nhrp authentication KEY1
ip nhrp nhs dynamic

- ```
ip nhrp network-id 10
tunnel mode mgre auto
```
- B. interface Tunnel0  
ip address 10.0.0.1 255.255.255.0  
ip nhrp authentication KEY1  
ip nhrp registration no-unique  
ip nhrp network-id 10  
tunnel mode gre nmra
- C. interface Tunnel0  
ip address 10.0.0.1 255.255.255.0  
ip nhrp authentication KEY1  
ip nhrp map multicast dynamic  
ip nhrp network-id 10  
tunnel mode gre multipoint
- D. interface Tunnel0  
ip address 10.0.0.1 255.255.255.0  
ip nhrp authentication KEY1  
ip nhrp map multicast 224.0.0.0  
ip nhrp network-id 10  
tunnel mode gre ipv4

**Correct Answer:** C

**QUESTION 264**

What is an advantage of implementing BFD?

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

**Correct Answer:** B

**QUESTION 265**

What is a function of IPv6 Source Guard?

- A. It works with address glean or ND to find existing addresses.
- B. It inspects ND and DHCP packets to build an address binding table.
- C. It denies traffic from known sources and allocated addresses.

- D. It notifies the ND protocol to inform hosts if the traffic is denied by it.

**Correct Answer:** A

**QUESTION 266**

What is the purpose of the DHCPv6 Guard?

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

**Correct Answer:** A

**QUESTION 267**

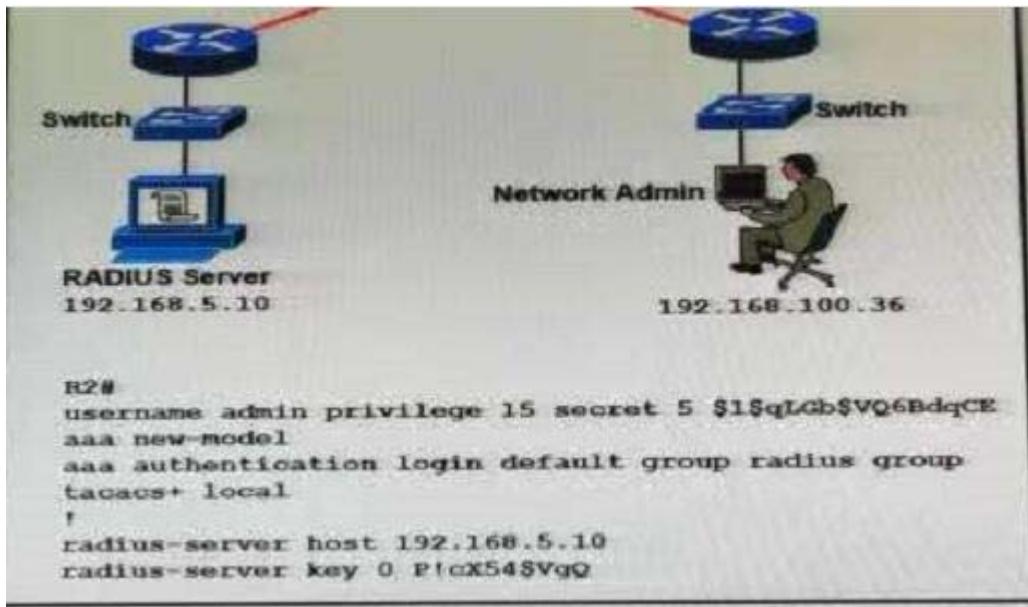
Which type of ports are protected by IPv6 Source Guard?

- A. trunk ports
- B. Layer 3 ports
- C. Layer 2 ports
- D. access ports

**Correct Answer:** D

**QUESTION 268**

Reerto the exhibit A network administrator is troubleshooting an authentication failure issue during login into R2 using a RADIUS server user account. The network administrator can ping the RADIUS server, but the user access to SSH is denied on R2. Which action resolves the issue?



- A. Modify the aaa command to replace TACACS+ with RADIUS
- B. Remove "local" from the aaa authentication command
- C. Enable AAA authorization to allow SSH connections
- D. Configure the username in RADIUS server database

**Correct Answer:** C

#### **QUESTION 269**

What does the MP-BGP OPEN message contain?

- A. MPLS labels and the IP address of the router that receives the message
- B. the version number and the AS number to which the router belongs
- C. IP routing information and the AS number to which the router belongs
- D. NLRI, path attributes, and IP addresses of the sending and receiving routers

**Correct Answer:** B

#### **QUESTION 270**

What statement about route distinguishers 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

**QUESTION 271**

Refer to the exhibit. An engineer configures the router 10.1.100.10 for EIGRP autosummarization so that R1 should receive the summary route of 10.0.0.0/8. However, R1 receives more specific /24 routes. Which action resolves this issue?

```
R1#sh ip route
 10.0.0.0/8 is variably subnetted, 3 subnets, 1 masks
 D 10.1.2.0/24 [90/409600] via 10.1.100.10, 00:08:45,
 FastEthernet0/0
 D 10.1.1.0/24 [90/409600] via 10.1.100.10, 00:08:45,
 FastEthernet0/0
 C 10.1.100.0/24 is directly connected, FastEthernet0/0
```

- A. Router R1 should configure ip summary address eigrp (AS number) 10.0.0.0 255.0.0.0 for the R1 Fast Ethernet 0/0 connected interface.
- B. Router R1 should configure ip route 10.0.0.0 255.0.0.0 null 0 for the routes that are received on R1.
- C. Router 10.1.100.10 should configure ip route 10.0.0.0 255.0.0.0 null 0 for the routes that are summarized toward R1.
- D. Router 10.1.100.10 should configure ip summary address eigrp (AS number) 10.0.0.0 255.0.0.0 for the R1 Fast Ethernet 0/0 connected interface.

**Correct Answer:** D

**QUESTION 272**

Refer to the exhibit. Although summarization is configured for R1 to receive 10.0.0.0/8. more specific routes are received by R1. How should the 10.0.0.0/8 summary route be received from the neighbor, attached to R1 via Fast Ethernet0/0 interface?

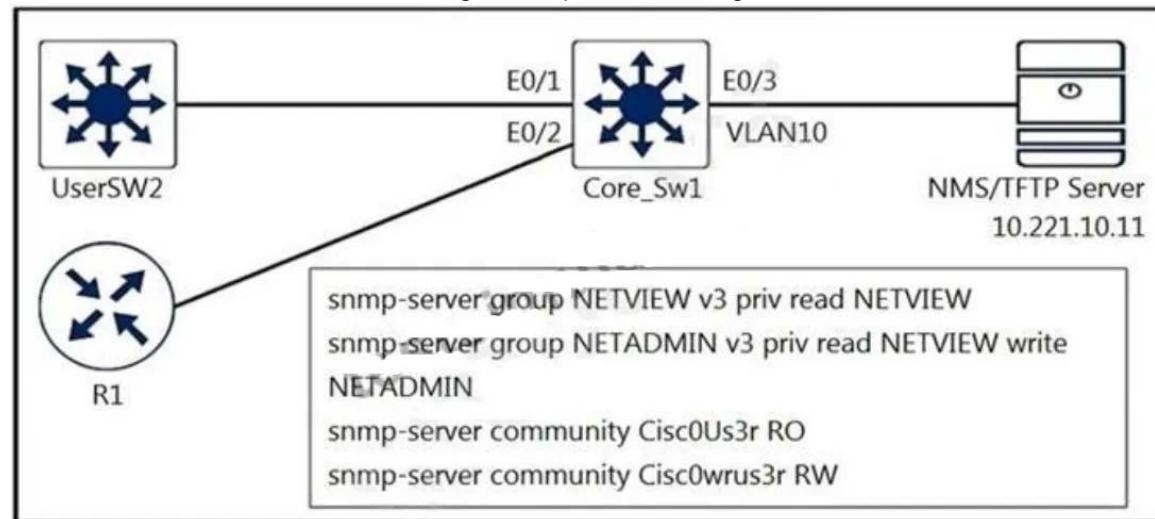
```
R1#sh ip route
 10.0.0.0/8 is variably subnetted, 3 subnets, 1 masks
D 10.1.2.0/24 [90/409600] via 10.1.100.10, 00:08:45,
FastEthernet0/0
D 10.1.1.0/24 [90/409600] via 10.1.100.10, 00:08:45,
FastEthernet0/0
C 10.1.100.0/24 is directly connected, FastEthernet0/0
```

- A. R1 should configure the ip summary-address eigrp <AS number> 10.0.0.255.0.0.0 command under the Fast Ethernet 0/0 interface.
- B. The summarization condition is not met Router 10 1 100.10 requires a route for 10 0.0.0/8 that points to null 0
- C. The summarization condition is not met. The network 10.1.100.0/24 should be changed to 172.16.0.0/24.
- D. R1 should configure the ip summary-address eigrp <AS number> 10.0.0.0.0.0.255 command under the Fast Ethernet 0/0 interface

**Correct Answer:** A

#### QUESTION 273

Refer to the exhibit. A junior engineer configured SNMP to network devices. Malicious users have uploaded different configurations to the network devices using SNMP and TFTP servers. Which configuration prevents changes from unauthorized NMS and TFTP servers?



- A. access-list 20 permit 10.221.10.11  
access-list 20 deny any log

```
!
snmp-server group NETVIEW v3 priv read NETVIEW access 20
snmp-server group NETADMIN v3 priv read NETVIEW write NETADMIN access 20 snmp-server
community Cisc0Us3r RO 20 snmp-server community Cisc0wrus3r RW 20 snmp-server tftp-server-list 20
B. access-list 20 permit 10.221.10.11
access-list 20 deny any log
!
snmp-server group NETVIEW v3 priv read NETVIEW access 20
snmp-server group NETADMIN v3 priv read NETVIEW write NETADMIN access 20 snmp-server
community Cisc0wrus3r RO 20 snmp-server community Cisc0Us3r RW 20 snmp-server tftp-server-list 20
C. access-list 20 permit 10.221.10.11
access-list 20 deny any log
D. access-list 20 permit 10.221.10.11
```

**Correct Answer:** A

**QUESTION 274**

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?

```
Router#show ip bgp vpng4 rd 1100:1001 10.30.116.0/23
BGP routing table entry for 1100:1001:10.30.116.0/23, version 26765275
Paths: (9 available, best #6, no table)
Advertised to update-groups:
 1 2 3
(65001 64955 65003) 65089, (Received from a RR-client)
 172.16.254.226 (metric 20645) from 172.16.224.236 (172.16.224.236)
 Origin IGP, metric 0, localpref 100, valid, confed-internal
 Extended Community: RT:1100:1001
 mpls labels in/out nolabel/362
(65008 64955 65003) 65089
 172.16.254.226 (metric 20645) from 10.131.123.71 (10.131.123.71)
 Origin IGP, metric 0, localpref 100, valid, confed-external
 Extended Community: RT:1100:1001
 mpls labels in/out nolabel/362
(65001 64955 65003) 65089
 172.16.254.226 (metric 20645) from 172.16.216.253 (172.16.216.253)
 Origin IGP, metric 0, localpref 100, valid, confed-external
 Extended Community: RT:1100:1001
 mpls labels in/out nolabel/362
(65001 64955 65003) 65089
 172.16.254.226 (metric 20645) from 172.16.216.252 (172.16.216.252)
 Origin IGP, metric 0, localpref 100, valid, confed-external
 Extended Community: RT:1100:1001
 mpls labels in/out nolabel/362
(64955 65003) 65089
 172.16.254.226 (metric 20645) from 10.77.255.57 (10.77.255.57)
 Origin IGP, metric 0, localpref 100, valid, confed-external
 Extended Community RT:1100:1001
 mpls labels in/out nolabel/362
(64955 65003) 65089
 172.16.254.226 (metric 20645) from 10.57.255.11 (10.57.255.11)
 Origin IGP, metric 0, localpref 100, valid, confed-external, best
 Extended Community RT:1100:1001
 mpls labels in/out nolabel/362
(64955 65003) 65089
 172.16.254.226 (metric 20645) from 172.16.224.253 (172.16.224.253)
 Origin IGP, metric 0, localpref 100, valid, confed-external
 Extended Community RT:1100:1001
```

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

**Correct Answer:** A

#### **QUESTION 275**

The network administrator configured CoPP so that all HTTP and HTTPS traffic from the administrator device located at 172.16.1.99 toward the router CPU is limited to 500 kbps. Any traffic that exceeds this limit must be dropped. CoPP failed to capture the desired traffic and the CPU load is getting higher. Which two configurations resolve the issue? (Choose two.)

```
access-list 100 permit ip host 172.16.1.99 any
```

```
!
```

```
class-map CM-ADMIN
match access-group 100
```

```
!
```

```
policy-map PM-COPP
class CM-ADMIN
police 500000 conform-action transmit
```

```
!
```

```
interface E0/0
service-policy input PM-COPP
```

A. interface E0/0  
 no service-policy input PM-COPP  
 !  
 control-plane  
 service-policy input PM-COPP

B. policy-map PM-COPP  
 class CM-ADMIN  
 no police 500000 conform-action transmit  
 police 500 conform-action transmit  
 !  
 control-plane  
 service-policy input PM-COPP

C. no access-list 100  
 access-list 100 permit tcp host 172.16.1.99 any eq 80  
 D. no access-list 100

```
access-list 100 permit tcp host 172.16.1.99 any eq 80
access-list 100 permit tcp host 172.16.1.99 any eq 443
```

E. policy-map PM-COPP  
class CM-ADMIN  
no police 500000 conform-action transmit  
police 500 conform-action transmit

**Correct Answer:** AD

#### **QUESTION 276**

Refer to the exhibit. A prefix list is created to filter routes inbound to an EIGRP process except for network 10 prefixes. After the prefix list is applied no network 10 prefixes are visible in the routing table from EIGRP. Which configuration resolves the issue?

```
R1(config)#ip prefix-list EIGRP seq 10 deny 0.0.0.0/0 le 32
R1(config)#ip prefix-list EIGRP seq 20 permit 10.0.0.0/8
R1(config)#router eigrp 10
R1(config-router)#distribute-list prefix EIGRP in Ethernet0/0
R1#show ip route eigrp
```

- A. ip prefix-list EIGRP seq 20 permit 10.0.0.0/8 ge 9.
- B. ip prefix-list EIGRP seq 10 permit 0.0.0.0/0 le 32
- C. ip prefix-list EIGRP seq 5 permit 10.0.0.0/8 ge 9 no ip prefix-list EIGRP seq 20 permit 10.0.0.0/8
- D. ip prefix-list EIGRP seq 20 permit 10.0.0.0/8 ge 9 ip prefix-list EIGRP seq 10 permit 0.0.0.0/0 le 32

**Correct Answer:** B

#### **QUESTION 277**

What are the two prerequisites to enable BFD on Cisco routers? (Choose two)

- A. A supported IP routing protocol must be configured on the participating routers.
- B. OSPF Demand Circuit must run BFD on all participating routers.
- C. ICMP must be allowed on all participating routers.
- D. UDP port 1985 must be allowed on all participating routers
- E. Cisco Express Forwarding and IP Routing must be enabled on all participating routers.

**Correct Answer:** CE

#### **QUESTION 278**

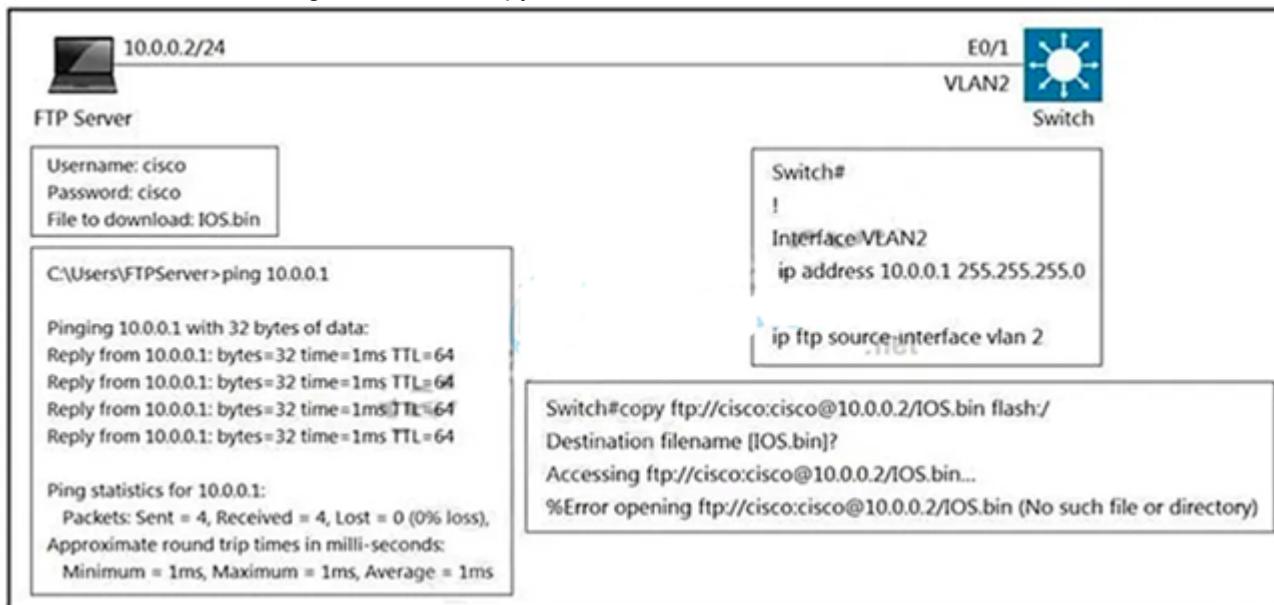
Which two solutions are used to overcome a flapping link that causes a frequent label binding exchange between MPLS routers? (Choose two)

- A. Create link dampening on links to protect the session.
- B. Increase input queue on links to protect the session.
- C. Create targeted hellos to protect the session.
- D. Increase a hold-timer to protect the session.
- E. Increase a session delay to protect the session.

**Correct Answer:** CD

#### QUESTION 279

Refer to the exhibit. An engineer cannot copy the IOS.bin. Which action resolves the issue?



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

**Correct Answer:** B

#### QUESTION 280

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

Select and Place:

|     |                                                                            |
|-----|----------------------------------------------------------------------------|
| FEC | routers in the core of the provider network known as P routers             |
| LSP | all traffic to be forwarded using the same path and same label             |
| LER | routers that connect to the customer routers known as PE routers           |
| LSR | used for exchanging label mapping information between MPLS enabled routers |
| LDP | path along which the traffic flows across an MPLS network                  |

Correct Answer:

|  |     |
|--|-----|
|  | LDP |
|  | FEC |
|  | LER |
|  | LSR |
|  | LSP |

QUESTION 281

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

Select and Place:

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

Correct Answer:

|  |                        |
|--|------------------------|
|  | Router Advertisement   |
|  | Redirect Message       |
|  | Neighbor Solicitation  |
|  | Router Solicitation    |
|  | Neighbor Advertisement |