

Cisco.VCEup.300-410.24-June-2022.158q

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Exam Code: 300-410

Exam Name: Implementing Cisco Enterprise Advanced Routing and Services (ENARSI)

Certification Provider: Cisco

Corresponding Certification: CCNP Enterprise

Sections

1. Layer 3 Technologies
2. VPN Technologies
3. Infrastructure Security
4. Infrastructure Services
5. Mixed Questions

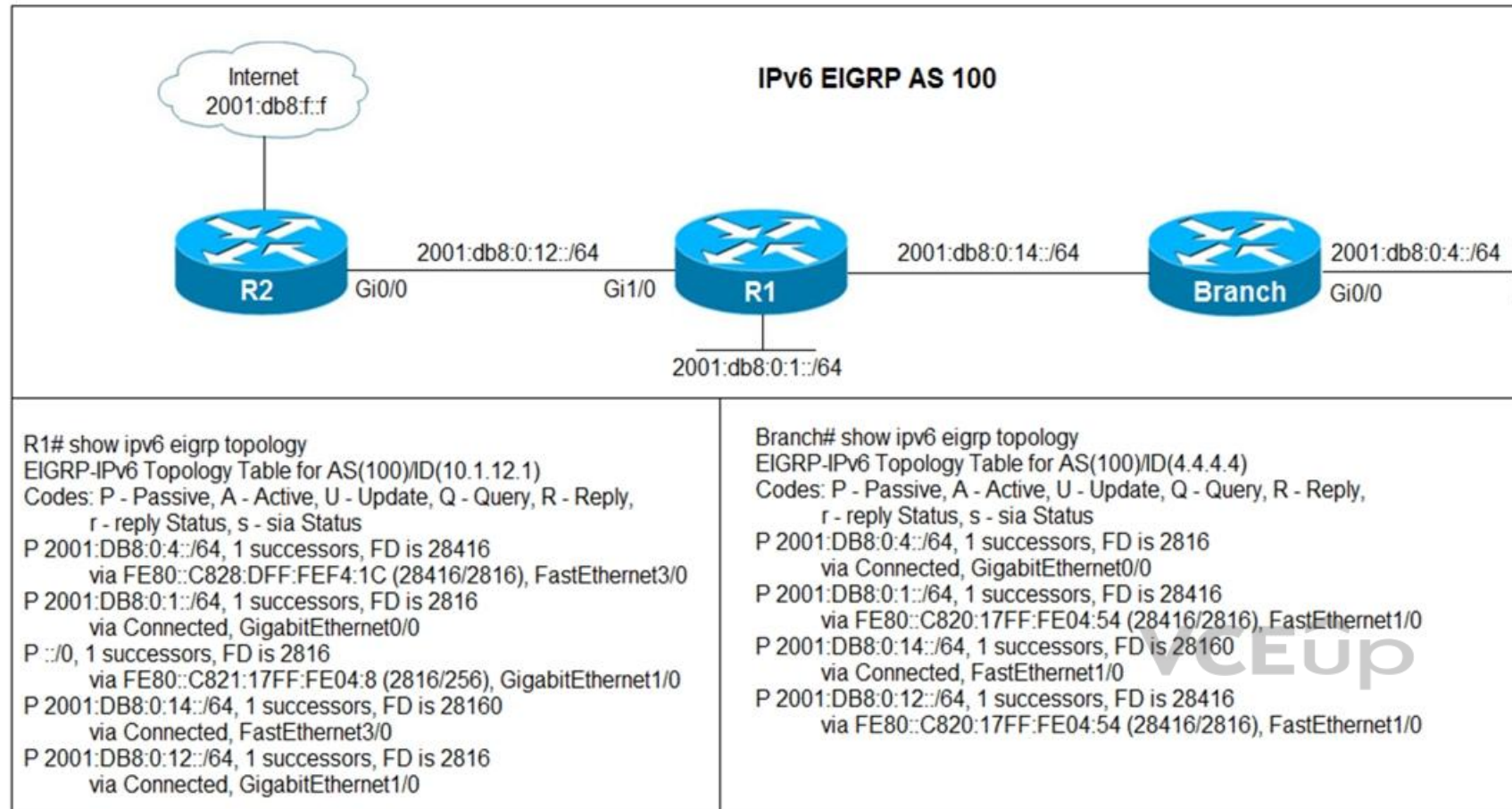


Exam A

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

Section: Layer 3 Technologies

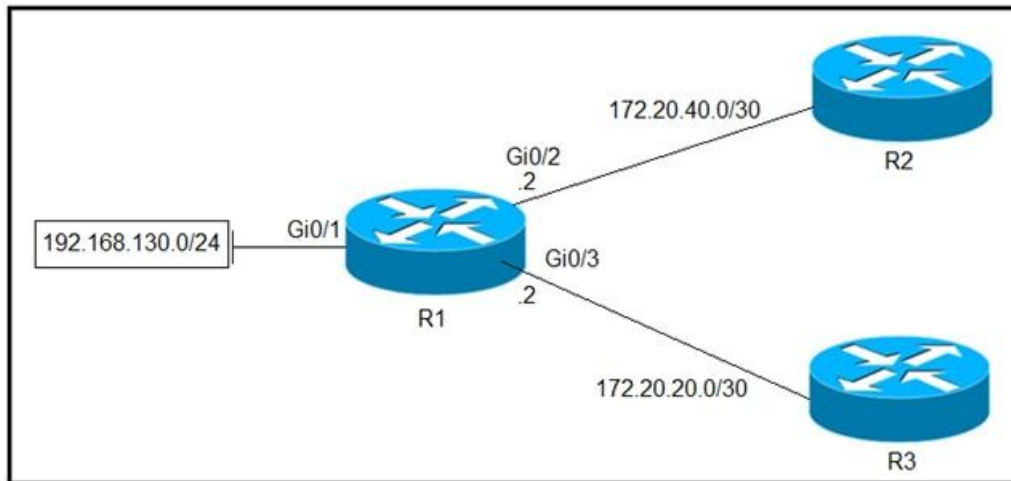
Explanation

Explanation/Reference:

Section: Layer 3 Technologies

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
Section: Layer 3 Technologies
Explanation

Explanation/Reference:
 Section: Layer 3 Technologies

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 192.168.30.0/24
- D. Network 192.168.130.0/24 is not allowed in the R1 table

Correct Answer: A

Section: Layer 3 Technologies

Explanation

Explanation/Reference:

Section: Layer 3 Technologies

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

Section: Layer 3 Technologies

Explanation

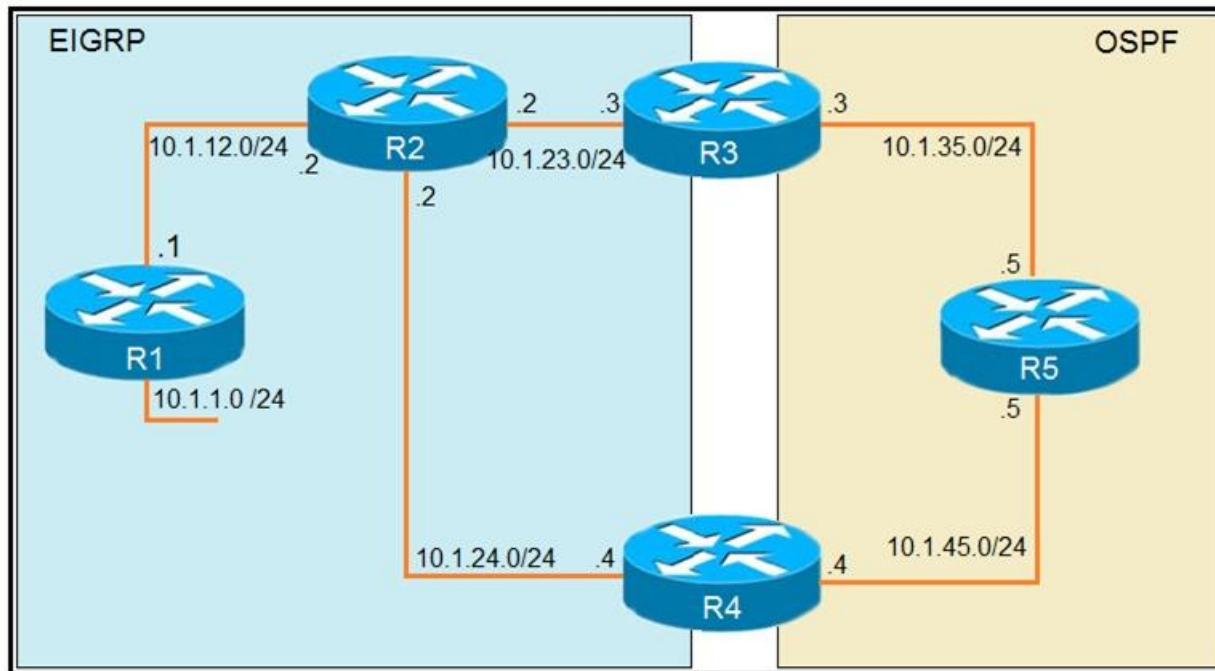
Explanation/Reference:

Section: Layer 3 Technologies

QUESTION 5

Refer to the exhibits. 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: B

Section: Layer 3 Technologies

Explanation

Explanation/Reference:

Section: Layer 3 Technologies

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

Section: Layer 3 Technologies

Explanation

Explanation/Reference:

Section: Layer 3 Technologies

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#

```

VCEup

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

Correct Answer: C

Section: Layer 3 Technologies

Explanation

Explanation/Reference:

Section: Layer 3 Technologies

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: C

Section: Layer 3 Technologies

Explanation

Explanation/Reference:

Section: Layer 3 Technologies

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

Section: Layer 3 Technologies

Explanation

Explanation/Reference:

Section: Layer 3 Technologies

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

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**Section:** Layer 3 Technologies**Explanation****Explanation/Reference:**

Section: Layer 3 Technologies

QUESTION 11

```
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#
```

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?

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

Correct Answer: D

Section: Layer 3 Technologies

Explanation

Explanation/Reference:

Section: Layer 3 Technologies

QUESTION 12

```

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

```

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

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

Correct Answer: D

Section: Layer 3 Technologies

Explanation

Explanation/Reference:

Section: Layer 3 Technologies

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: B

Section: Layer 3 Technologies

Explanation

Explanation/Reference:

Section: Layer 3 Technologies

Reference: https://www.cisco.com/c/en/us/td/docs/ios-xml/ios/iproute_eigrp/configuration/xr-3s/asr1000/ire-xr-3s-asr1000/ire-ipfrr.html

QUESTION 14

```

* 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

```

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?

- 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: D

Section: Layer 3 Technologies

Explanation

Explanation/Reference:

Section: Layer 3 Technologies

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: A

Section: Layer 3 Technologies

Explanation

Explanation/Reference:

Section: Layer 3 Technologies

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

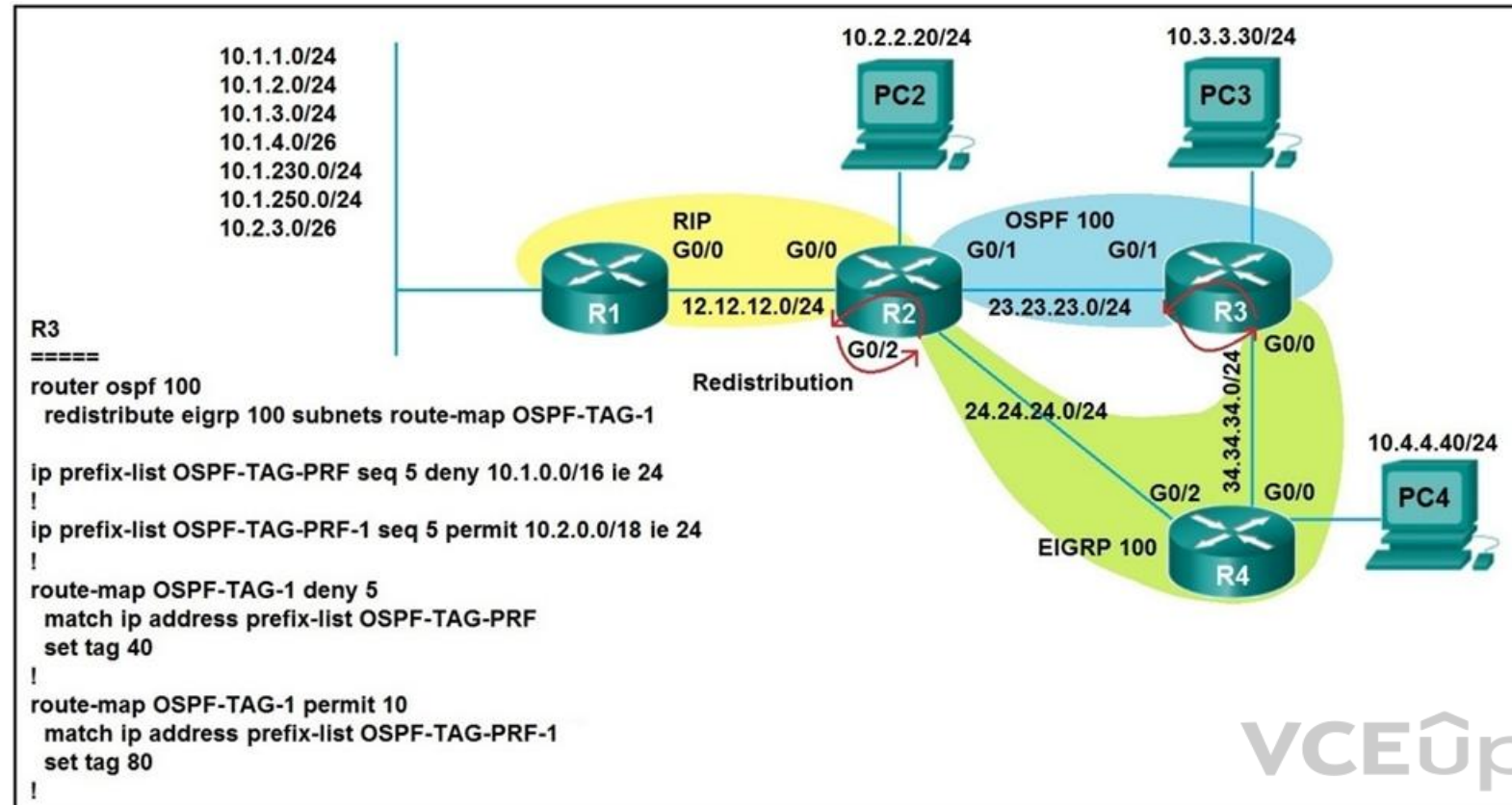
Correct Answer: B

Section: Layer 3 Technologies

Explanation

Explanation/Reference:

Section: Layer 3 Technologies

Reference: <https://www.cisco.com/c/en/us/td/docs/switches/lan/catalyst4500/12-2/50sg/configuration/guide/Wrapper-46SG/vrf.html#wp1045708>**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**Section:** Layer 3 Technologies**Explanation****Explanation/Reference:**

Section: Layer 3 Technologies

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: D**Section:** Layer 3 Technologies

Explanation**Explanation/Reference:**

Section: Layer 3 Technologies

Reference: https://www.cisco.com/c/en/us/td/docs/ios-xml/ios/iproute_ospf/configuration/xr-3s/iro-xe-3s-book/ip6-route-ospfv3-add-fam-xe.html**QUESTION 19**

```

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

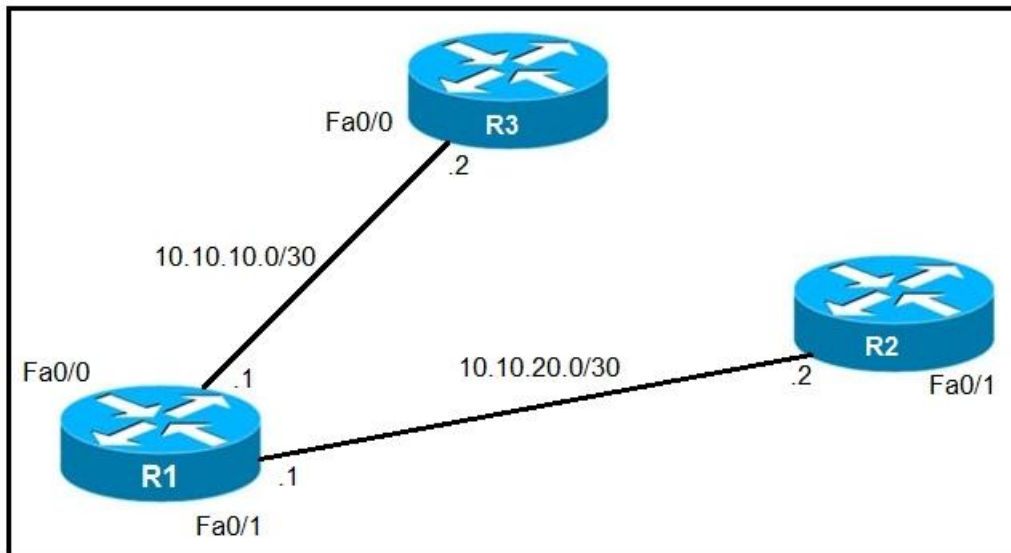
```

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

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

Correct Answer: B**Section: Layer 3 Technologies****Explanation****Explanation/Reference:**

Section: Layer 3 Technologies

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

Section: Layer 3 Technologies**Explanation****Explanation/Reference:**

Section: Layer 3 Technologies

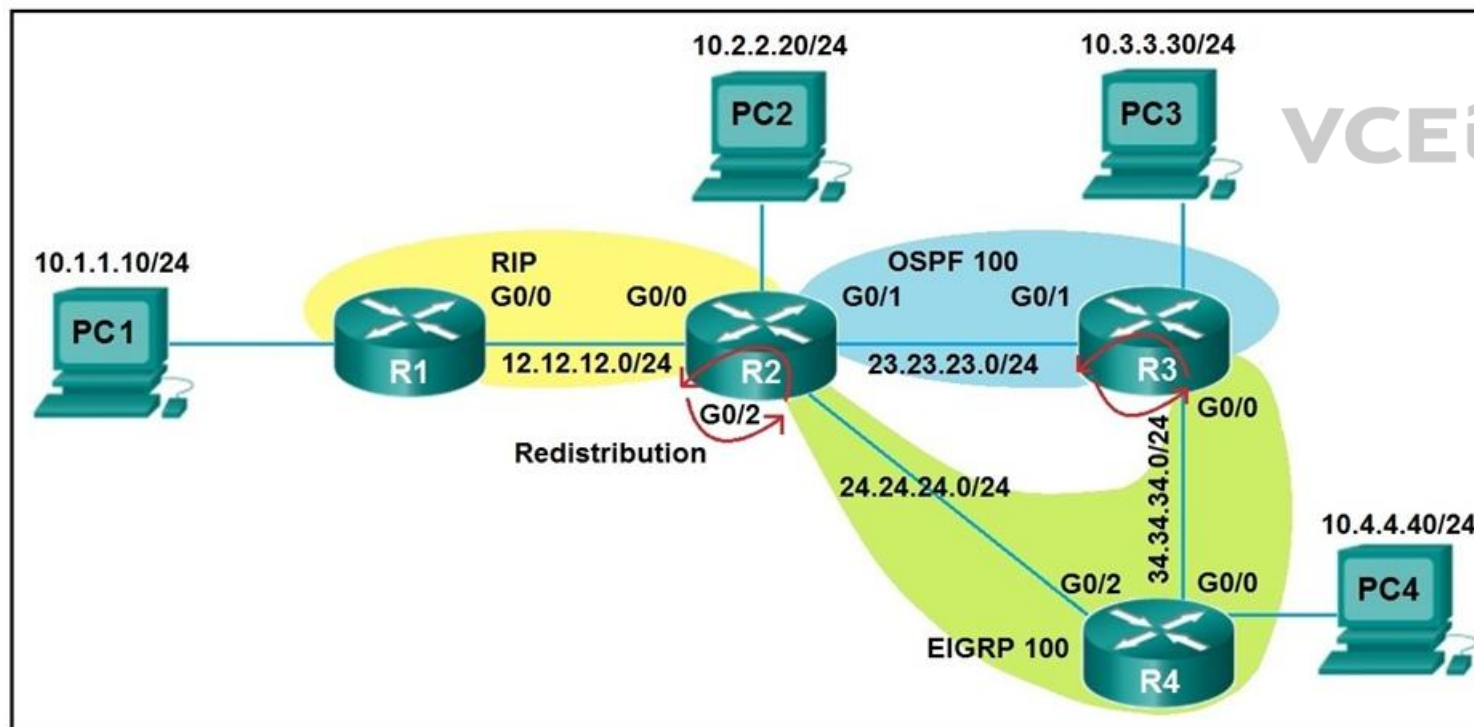
QUESTION 21

Which configuration enables 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**Section: Layer 3 Technologies****Explanation****Explanation/Reference:**

Section: Layer 3 Technologies

QUESTION 22

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

Section: Layer 3 Technologies**Explanation****Explanation/Reference:**

Section: Layer 3 Technologies

QUESTION 23

```
router bgp 100
!
 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
```

Refer to the exhibit. A router is receiving BGP routing updates from multiple neighbors for routes in AS 690.

What is the reason that the router still sends traffic that is destined to AS 690 to a neighbor other than 10.222.1.1?

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

Correct Answer: D**Section: Layer 3 Technologies****Explanation****Explanation/Reference:**

Section: Layer 3 Technologies

Reference: https://www.cisco.com/c/en/us/td/docs/ios-xml/ios/iproute_bgp/configuration/xr-3se/3850/irg-xr-3se-3850-book/irg-prefix-filter.html

QUESTION 24

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

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

Correct Answer: C**Section: VPN Technologies****Explanation****Explanation/Reference:**

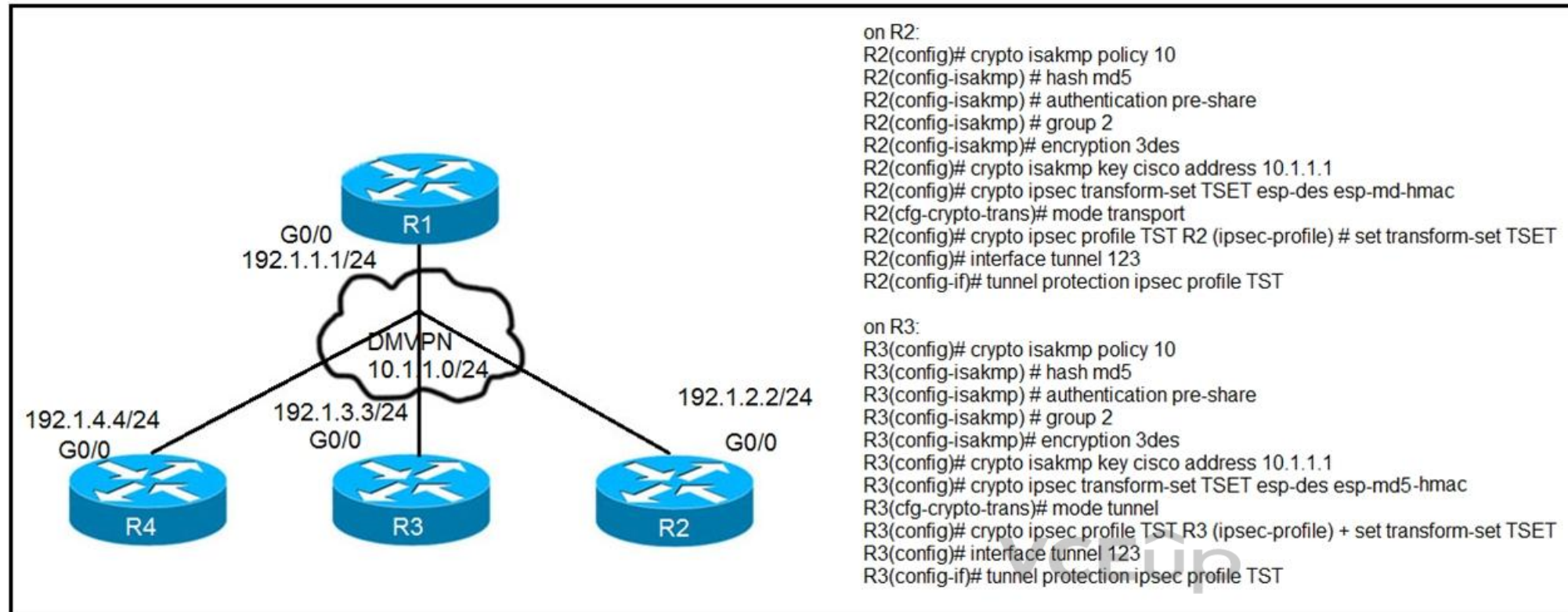
Section: VPN Technologies

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

QUESTION 25

Refer to the exhibit. After applying IPsec, the engineer observed that the DMVPN tunnel went down, and both spoke-to-spoke and hub were not establishing.

Which two actions resolve the issue? (Choose two.)



- A. 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: AD

Section: VPN Technologies

Explanation

Explanation/Reference:

Section: VPN Technologies

QUESTION 26

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

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

Correct Answer: C

Section: VPN Technologies

Explanation

Explanation/Reference:

Section: VPN Technologies

QUESTION 27

Which statement about MPLS LDP router ID is true?

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

Correct Answer: B

Section: VPN Technologies

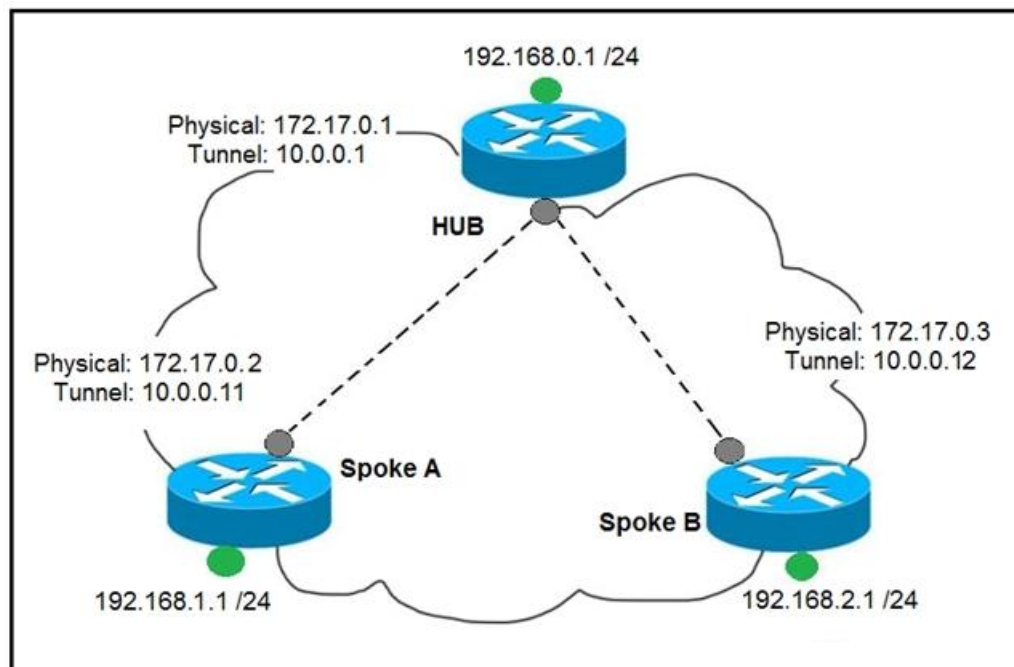
Explanation

Explanation/Reference:

Section: VPN Technologies

Reference: https://www.cisco.com/c/en/us/td/docs/ios-xml/ios/mp_ldp/configuration/12-4m/mp-ldp-12-4m-book.pdf**QUESTION 28**

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?



VCEup

- 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
Section: VPN Technologies
Explanation

Explanation/Reference:
Section: VPN Technologies

QUESTION 29

Which list defines the contents of an MPLS label?

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

Correct Answer: A
Section: VPN Technologies
Explanation

Explanation/Reference:
Section: VPN Technologies

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

QUESTION 30

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

Section: VPN Technologies

Explanation

Explanation/Reference:

Section: VPN Technologies

QUESTION 31

Which transport layer protocol is used to form LDP sessions?

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

Correct Answer: C

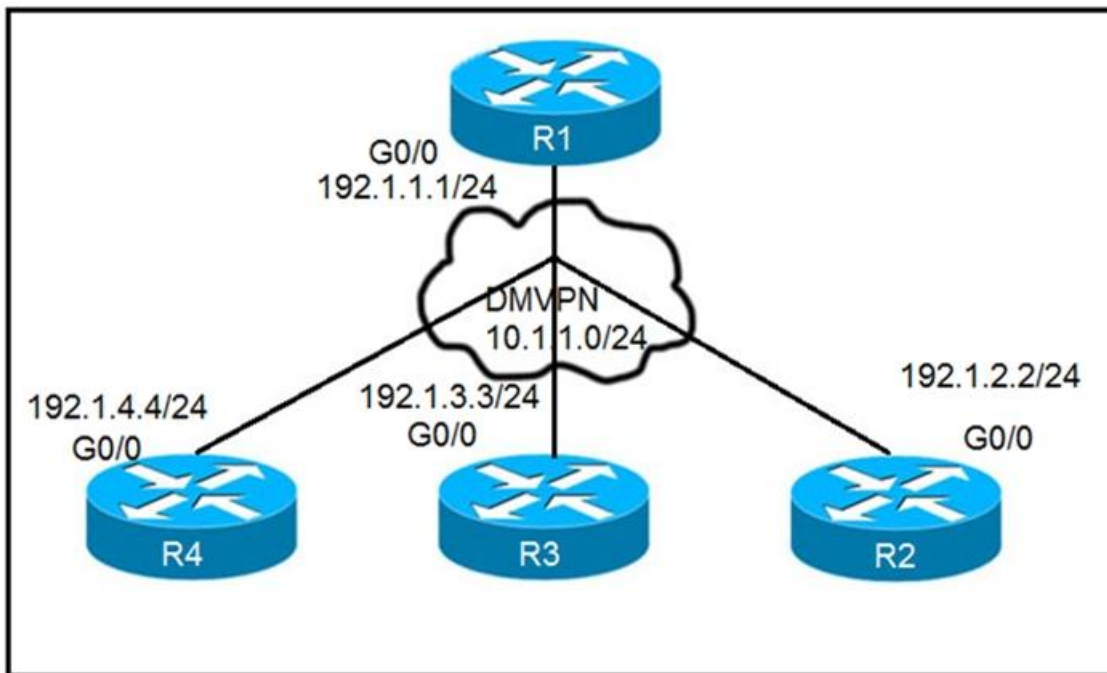
Section: VPN Technologies

Explanation

Explanation/Reference:

Section: VPN Technologies

QUESTION 32



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

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

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

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

VCEup

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

Section: VPN Technologies

Explanation

Explanation/Reference:

Section: VPN Technologies

QUESTION 33

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

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

Correct Answer: A

Section: VPN Technologies

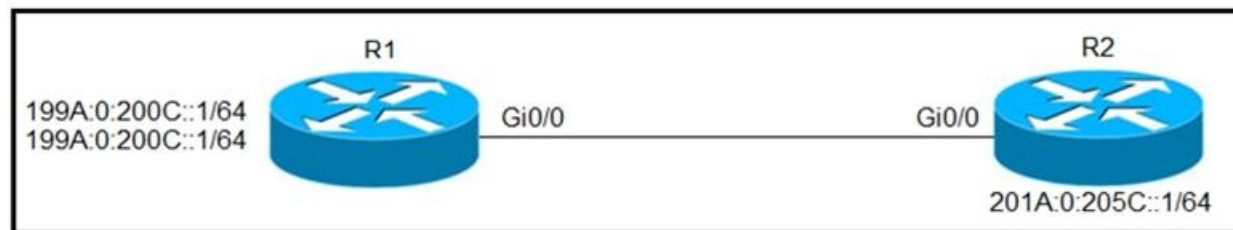
Explanation

Explanation/Reference:

Section: VPN Technologies

QUESTION 34

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



VCEup

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

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

Correct Answer: A

Section: Infrastructure Security

Explanation

Explanation/Reference:

Section: Infrastructure Security

QUESTION 35

```
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
```

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?

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

Correct Answer: A

Section: Infrastructure Security

Explanation

Explanation/Reference:

Section: Infrastructure Security

QUESTION 36

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

Section: Infrastructure Security

Explanation

Explanation/Reference:

Section: Infrastructure Security

QUESTION 37

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

Section: Infrastructure Security

Explanation

Explanation/Reference:

Section: Infrastructure Security

QUESTION 38

Which statement about IPv6 ND inspection is true?

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

Correct Answer: B

Section: Infrastructure Security

Explanation

Explanation/Reference:

Section: Infrastructure Security

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

QUESTION 39

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

- Standard pings to all router interfaces, including loopbacks, are successful.
- Data traffic is unaffected.
- SNMP connectivity is intermittent.
- SSH is either slow or disconnects frequently.

Which command must be configured first to troubleshoot this issue?

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

Correct Answer: A

Section: Infrastructure Security

Explanation

Explanation/Reference:

Section: Infrastructure Security

QUESTION 40

```
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
```

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

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

Correct Answer: D

Section: Infrastructure Security

Explanation

Explanation/Reference:

Section: Infrastructure Security

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

QUESTION 41

```
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
```

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?

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

Correct Answer: D

Section: Infrastructure Security

Explanation

Explanation/Reference:

Section: Infrastructure Security

QUESTION 42

Which statement about IPv6 RA Guard is true?

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

Correct Answer: A

Section: Infrastructure Security

Explanation

Explanation/Reference:

Section: Infrastructure Security

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

QUESTION 43

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

Section: Infrastructure Services

Explanation

Explanation/Reference:

Section: Infrastructure Services

QUESTION 44

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

Section: Infrastructure Services

Explanation

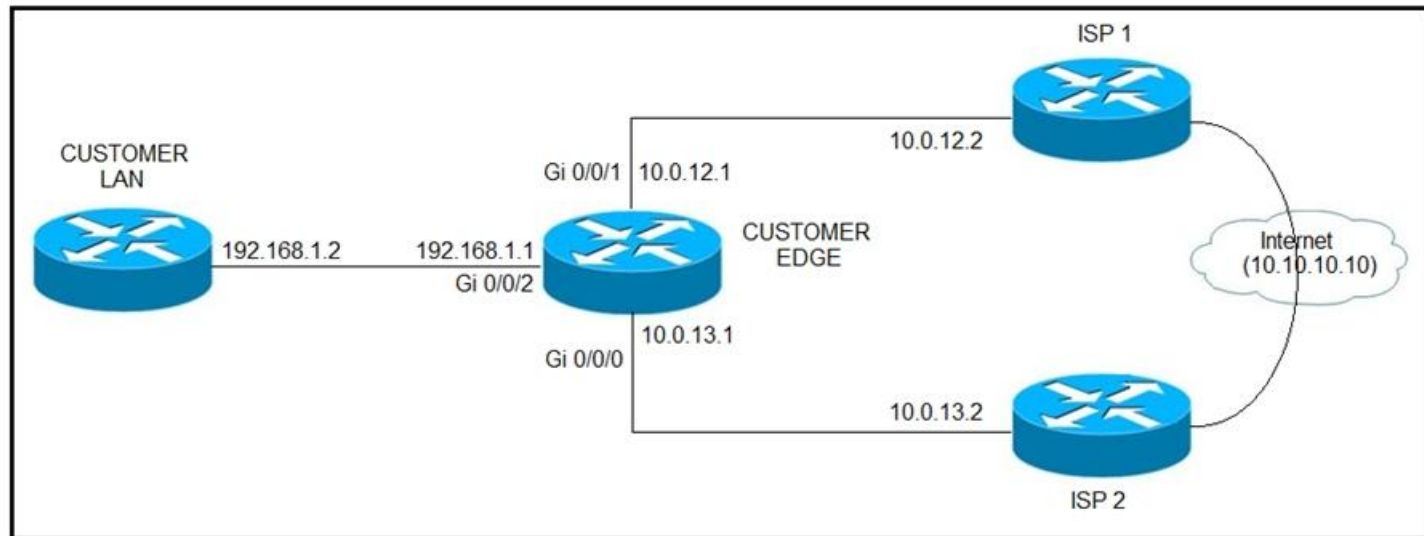
Explanation/Reference:

Section: Infrastructure Services

QUESTION 45

Refer to the exhibit. ISP 1 and ISP 2 directly connect to the Internet. A customer is tracking both ISP links to achieve redundancy and cannot see the Cisco IOS IP SLA tracking output on the router console.

Which command is missing from the IP SLA configuration?



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

Correct Answer: D

Section: Infrastructure Services

Explanation

Explanation/Reference:

Section: Infrastructure Services

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

QUESTION 46

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.

VCEup

Correct Answer: A

Section: Infrastructure Services

Explanation

Explanation/Reference:

Section: Infrastructure Services

QUESTION 47

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

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

Correct Answer: C

Section: Infrastructure Services

Explanation

Explanation/Reference:

Section: Infrastructure Services

QUESTION 48

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

- A. The template has an incorrect configuration.

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

Correct Answer: D

Section: Infrastructure Services

Explanation

Explanation/Reference:

Section: Infrastructure Services

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

QUESTION 49

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

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

Correct Answer: B

Section: Infrastructure Services

Explanation

Explanation/Reference:

Section: Infrastructure Services

Reference: https://www.cisco.com/c/en/us/td/docs/cloud-systems-management/network-automation-and-management/dna-center/1-2-10/user_guide/b_cisco_dna_center_ug_1_2_10/b_dnac_ug_1_2_10_chapter_0100.html

QUESTION 50

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

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

Correct Answer: A

Section: Infrastructure Services

Explanation

Explanation/Reference:

Section: Infrastructure Services

QUESTION 51

```

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) #

```

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?

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

Correct Answer: C

Section: Infrastructure Services

Explanation

Explanation/Reference:

Section: Infrastructure Services

QUESTION 52

```

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

```

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.)

- 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

Section: Infrastructure Services

Explanation

Explanation/Reference:

Section: Infrastructure Services

QUESTION 53

```

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
!

```

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

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

Correct Answer: D

Section: Infrastructure Services

Explanation

Explanation/Reference:

Section: Infrastructure Services

QUESTION 54

```

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.

Which changes resolve this issue?

- A. **ipv6 access-list inbound**
permit tcp any any established
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 syn
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: A

Section: Mixed Questions

Explanation

Explanation/Reference:

Section: Mixed Questions

QUESTION 55

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

- A. It works independent from IPv6 neighbor discovery.
B. It denies traffic from unknown sources or unallocated addresses.
C. It uses the populated binding table for allowing legitimate traffic.

- D. It denies traffic by inspecting neighbor discovery packets for specific patterns.
- E. It blocks certain traffic by inspecting DHCP packets for specific sources.

Correct Answer: BC
Section: Mixed Questions
Explanation

Explanation/Reference:
 Section: Mixed Questions

QUESTION 56

Debug output:

```
May 5 15:19:26.173: OSPF: Send DBD to 192.168.95.11 on GigabitEthernet3/1 seq 0x2AC opt 0x50 flag 0x7 len 32
May 5 15:19:30.749: OSPF: Send DBD to 192.168.95.11 on GigabitEthernet3/1 seq 0x2AC opt 0x50 flag 0x7 len 32
May 5 15:19:30.749: OSPF: Retransmitting DBD to 192.168.95.11 on GigabitEthernet3/1 [1]
May 5 15:19:35.509: OSPF: Send DBD to 192.168.95.11 on GigabitEthernet3/1 seq 0x2AC opt 0x50 flag 0x7 len 32
May 5 15:27:29.904: %OSPF-5-ADJCHG: Process 1, Nbr 192.168.99.22 on Tunnel0 from LOADING to FULL, Loading Done
May 5 15:28:28.176: %OSPF-5-ADJCHG: Process 1, Nbr 192.168.99.22 on Tunnel9 from LOADING to FULL, Loading Done
May 5 15:30:02.028: %OSPF-5-ADJCHG: Process 1, Nbr 192.168.99.22 on Tunnel55 from LOADING to FULL, Loading Done
May 5 15:30:34.720: %CRYPTO-4-IKE_DEFAULT_POLICY_ACCEPTED: IKE default policy was matched and is being used.
May 5 15:30:44.009: %CRYPTO-4-IKE_DEFAULT_POLICY_ACCEPTED: IKE default policy was matched and is being used.
May 5 15:19:30.749: OSPF: Send DBD to 192.168.95.11 on GigabitEthernet3/1 seq 0x2AC opt 0x50 flag 0x7 len 32
May 5 15:19:30.749: OSPF: Retransmitting DBD to 192.168.95.11 on GigabitEthernet3/1 [1]
May 5 15:31:09.441: %OSPF-5-ADJCHG: Process 1, Nbr 192.168.99.22 on Tunnel9 from LOADING to FULL, Loading Done
May 5 15:31:27.341: %CRYPTO-4-IKE_DEFAULT_POLICY_ACCEPTED: IKE default policy was matched and is being used.
May 5 15:31:42.137: %CRYPTO-4-IKE_DEFAULT_POLICY_ACCEPTED: IKE default policy was matched and is being used.
May 5 15:32:14.777: %OSPF-5-ADJCHG: Process 1, Nbr 192.168.99.22 on Tunnel55 from LOADING to FULL, Loading Done
May 5 15:19:30.749: OSPF: Send DBD to 192.168.95.11 on GigabitEthernet3/1 seq 0x2AC opt 0x50 flag 0x7 len 32
May 5 15:19:30.749: OSPF: Retransmitting DBD to 192.168.95.11 on GigabitEthernet3/1 [1]
May 5 15:33:40.761: %CRYPTO-4-IKE_DEFAULT_POLICY_ACCEPTED: IKE default policy was matched and is being used.
May 5 15:34:32.065: %CRYPTO-4-IKE_DEFAULT_POLICY_ACCEPTED: IKE default policy was matched and is being used.
May 5 15:35:05.950: %OSPF-5-ADJCHG: Process 1, Nbr 192.168.99.22 on Tunnel0 from LOADING to FULL, Loading Done
May 5 15:56:36.603: %PARSER-5-CFGLOG_LOGGEDCMD: User:gua logged command:lexec: enable
```

Refer to the exhibit. A network administrator is troubleshooting OSPF adjacency issue by going through the console logs in the router, but due to an overwhelming log messages stream, it is impossible to capture the problem.

Which two commands reduce console log messages to relevant OSPF neighbor problem details so that the issue can be resolved? (Choose two.)

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

Correct Answer: AB
Section: Mixed Questions
Explanation

Explanation/Reference:
 Section: Mixed Questions

QUESTION 57

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

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

VCEup

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

Correct Answer: D

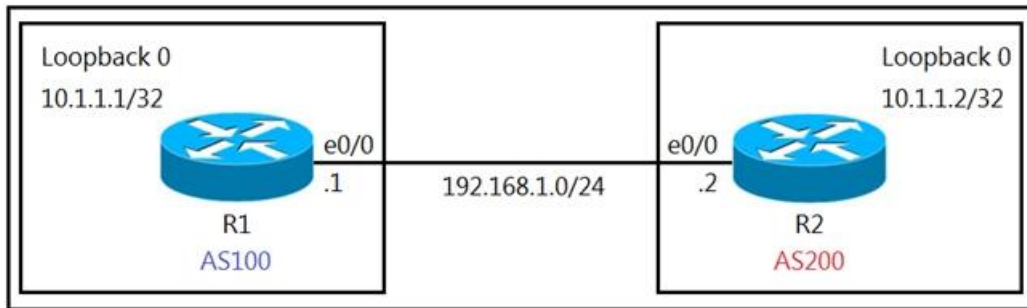
Section: Mixed Questions

Explanation

Explanation/Reference:

Section: Mixed Questions

QUESTION 58



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. 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
  
```

B. 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
  
```

C. 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
```

D. 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
```

E. 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
```

VCEUp

Correct Answer: DE
Section: Mixed Questions
Explanation

Explanation/Reference:
Section: Mixed Questions

QUESTION 59

Router Configuration:

```
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-adjacency-changes
!
router ospf 2 vrf customer_a
  log-adjacency-changes
  network 192.168.4.0 0.0.0.255 area 0
!
end
```

VCEUp

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**?

- A. ip vrf customer_a
 rd 1:1
 route-target export 1:2
 route-target import 1:2
- B. ip vrf customer_a
 rd 1:1
 route-target import 1:1
 route-target export 1:2

- C. `ip vrf customer_a`
`rd 1:2`
`route-target both 1:2`
- D. `ip vrf customer_a`
`rd 1:2`
`route-target both 1:1`

Correct Answer: D
Section: Mixed Questions
Explanation

Explanation/Reference:
 Section: Mixed Questions

QUESTION 60

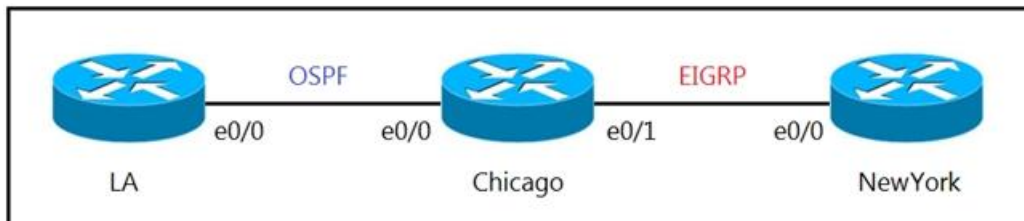
What does the PE router convert the IPv4 prefix to within an MPLS VPN?

- A. eBGP path association between the PE and CE sessions
 B. prefix that combines the ASN, PE router-id, and IP prefix
 C. 48-bit route combining the IP and PE router-id
 D. VPN-IPv4 prefix combined with the 64-bit route distinguisher

Correct Answer: D
Section: Mixed Questions
Explanation

Explanation/Reference:
 Section: Mixed Questions

QUESTION 61



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

Correct Answer: B

Section: Mixed Questions

Explanation

Explanation/Reference:

Section: Mixed Questions

QUESTION 62

```
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
```

VCEup

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 20 from access list 100.
- C. Configure transport input ssh on line vty and remove sequence 30 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 output ssh on line vty and remove sequence 10 from access list 199.

Correct Answer: AC
Section: Mixed Questions
Explanation

Explanation/Reference:
Section: Mixed Questions

QUESTION 63

```
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)
R3#
```

VCEUp

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

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

D. Add a new class map to match TCP traffic.

Correct Answer: B

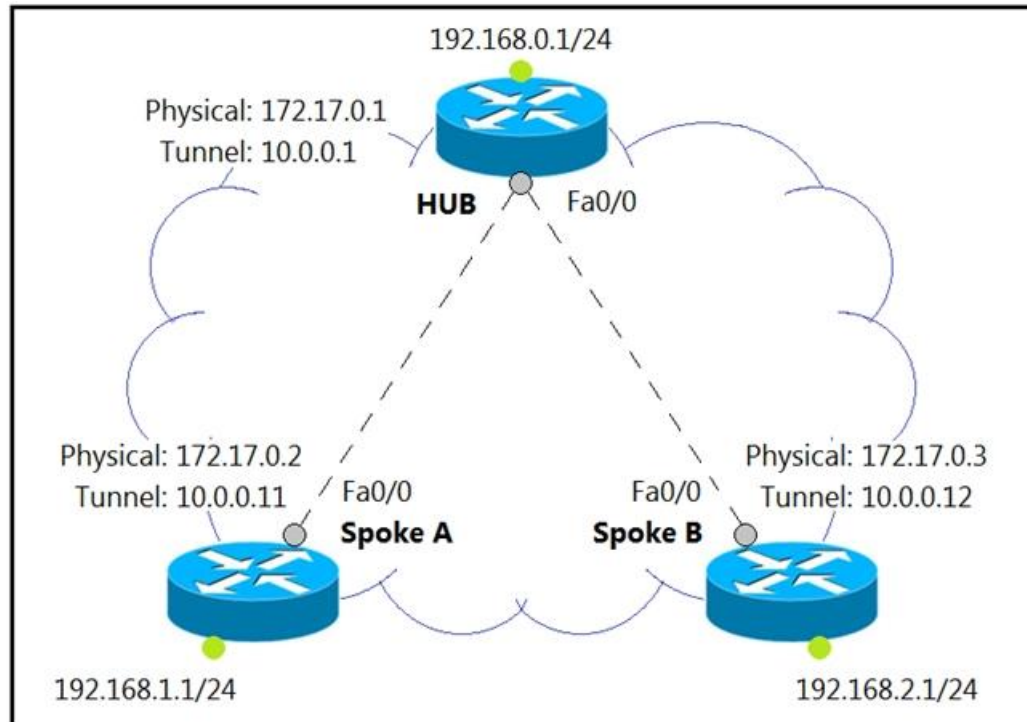
Section: Mixed Questions

Explanation

Explanation/Reference:

Section: Mixed Questions

QUESTION 64



VCEUp

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: B

Section: Mixed Questions

Explanation

Explanation/Reference:

Section: Mixed Questions

QUESTION 65

```
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
!
```

VCEup

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? (Choose two.)

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

Correct Answer: BC

Section: Mixed Questions

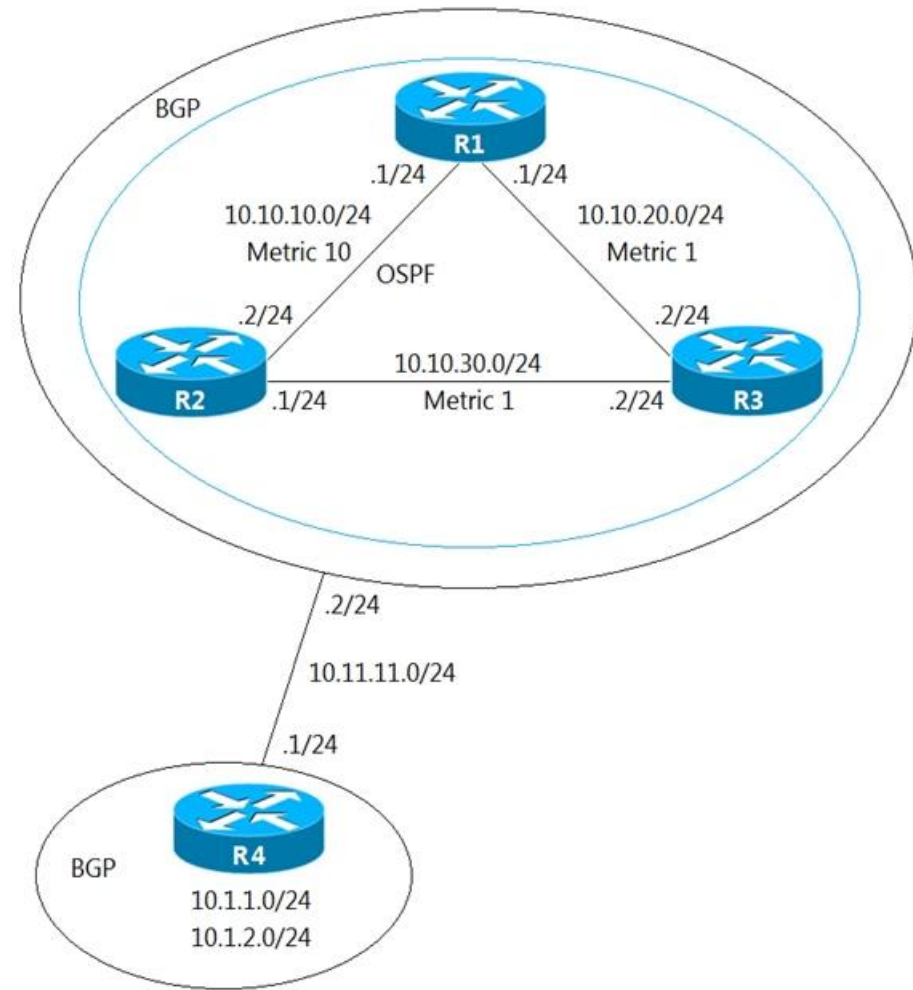
Explanation

Explanation/Reference:

Section: Mixed Questions

QUESTION 66

```
ip sla 10
tcp connect 10.1.1.1 80
ip sla schedule 10 life 30 start time now
```



VCEUp

Refer to the exhibit. A user has set up an IP SLA probe to test if a non SLA host web server on IP address 10.1.1.1 accepts HTTP sessions prior to deployment. The probe is failing.

Which action should the network administrator recommend for the probe to succeed?

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

Correct Answer: A

Section: Mixed Questions

Explanation

Explanation/Reference:

Section: Mixed Questions

QUESTION 67

```

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: D

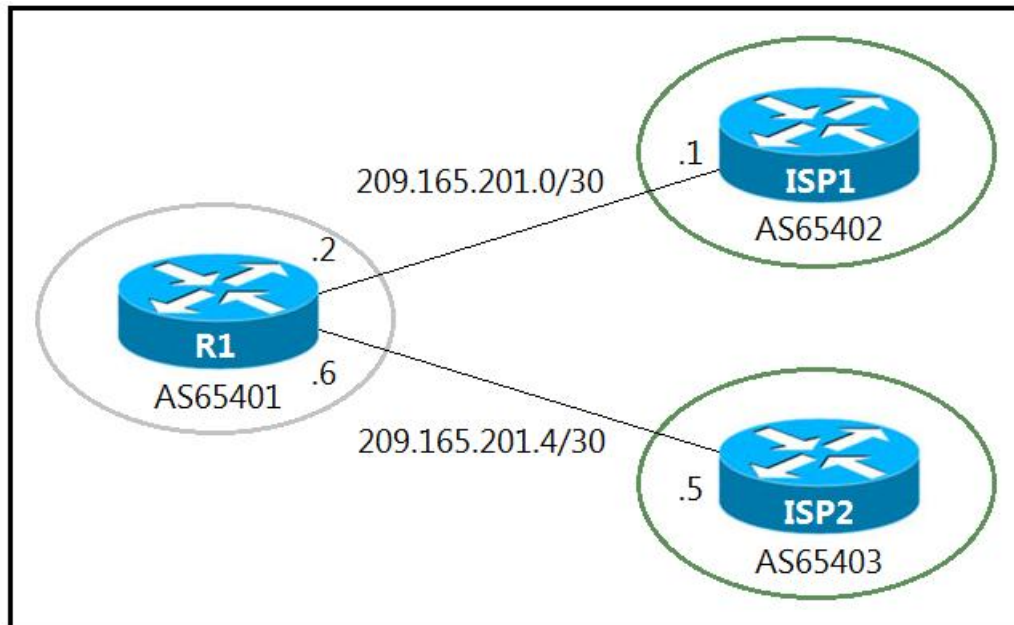
Section: Mixed Questions

Explanation

Explanation/Reference:

Section: Mixed Questions

QUESTION 68



```
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
Section: Mixed Questions
Explanation

Explanation/Reference:
Section: Mixed Questions

QUESTION 69
How are MPLS Layer 3 VPN services deployed?

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

Correct Answer: C

Section: Mixed Questions

Explanation

Explanation/Reference:

Section: Mixed Questions

QUESTION 70

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

Section: Mixed Questions

Explanation

Explanation/Reference:

Section: Mixed Questions

Reference: https://www.cisco.com/c/en/us/td/docs/ios-xml/ios/mp_ldp/configuration/15-s/mp-ldp-15-s-book/mp-ldp-autoconfig.pdf

QUESTION 71

```
!  
time-range no-conn  
periodic weekdays 17:00 to 23:59  
periodic weekend 0:00 to 23:59  
!  
ip access-list extended NOT-ALLOWED  
deny tcp any any time-range no-conn  
deny udp any any time-range no-conn  
deny icmp any any time-range no-conn  
!  
  
interface gi0/1  
ip access-group NOT-ALLOWED in
```

Refer to the exhibit. A network administrator wants to block all traffic toward the Internet after business hours and on weekends. When the administrator applies an access list on interface Gi0/1, all traffic is blocked and there is no access to the Internet at any time.

Which action resolves the issue?

- A. Add the permit ip any any time-range no-conn statement after the deny udp any any time-range no-conn command in the access list.

- B. Add the permit ip any any statement after the deny icmp any any time-range no-conn command in the access list.
- C. Add the permit allowed time-range no-conn statement after the deny icmp any any time-range no-conn command in the access list.
- D. Add the permit ip any any time-range no-conn statement after the deny icmp any any time-range no-conn command in the access list.

Correct Answer: B

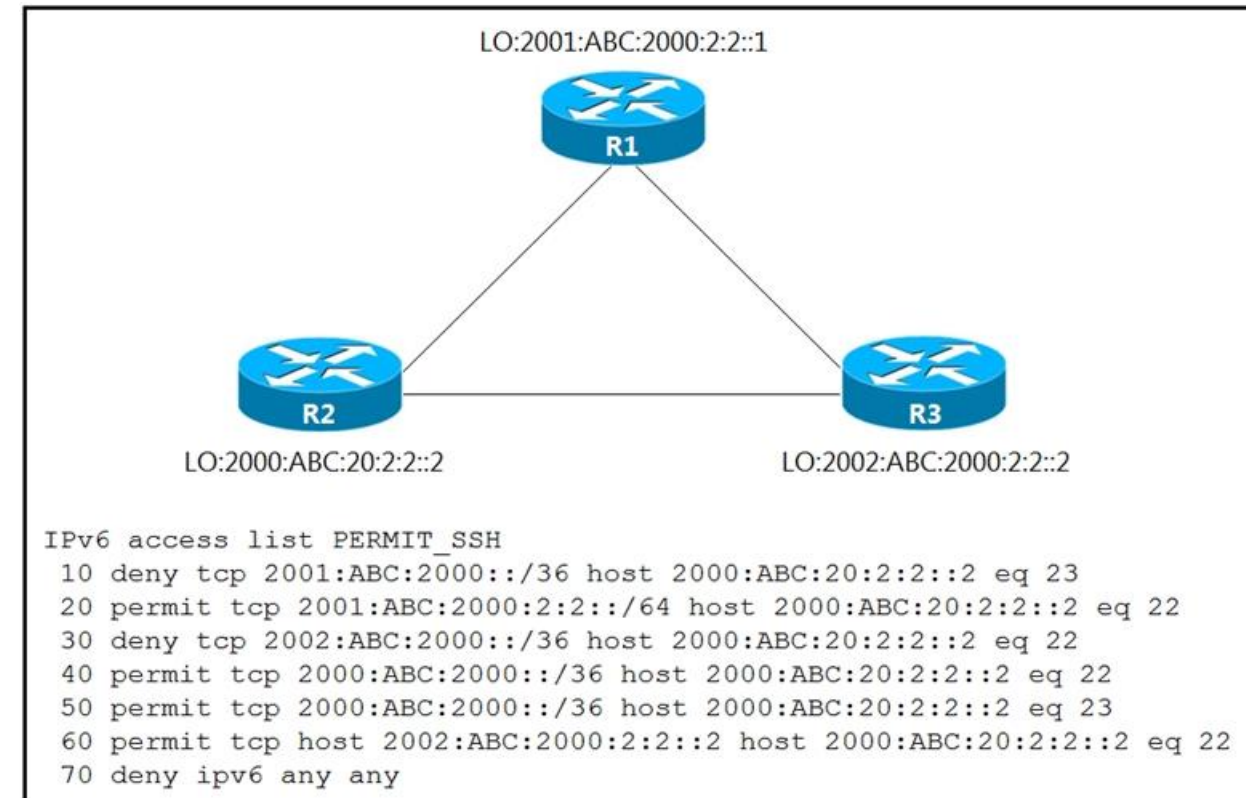
Section: Mixed Questions

Explanation

Explanation/Reference:

Section: Mixed Questions

QUESTION 72



VCEUp

Refer to the exhibit. An IPv6 network was newly deployed in the environment and the help desk reports that R3 cannot SSH to the R2s 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

Section: Mixed Questions

Explanation

Explanation/Reference:

Section: Mixed Questions

QUESTION 73

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`

VCEup

Correct Answer: C
Section: Mixed Questions
Explanation

Explanation/Reference:
 Section: Mixed Questions

QUESTION 74

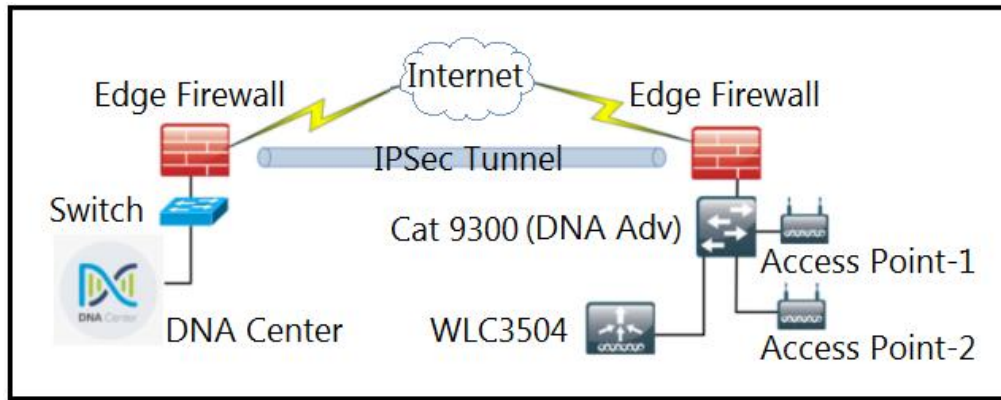
An engineer configured SNMP notifications sent to the management server using authentication and encrypting data with DES. An error in the response PDU is received as "UNKNOWNUSERNAME, WRONGDIGEST". Which action resolves the issue?

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

Correct Answer: B
Section: Mixed Questions
Explanation

Explanation/Reference:
 Section: Mixed Questions

QUESTION 75



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

Correct Answer: D

Section: Mixed Questions

Explanation

Explanation/Reference:

Section: Mixed Questions

QUESTION 76

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

Section: Mixed Questions

Explanation

Explanation/Reference:

Section: Mixed Questions

QUESTION 77

```
Global RADIUS shared secret: *****
retransmission count:5
timeout value:10
following RADIUS servers are configured:
  myradius.cisco.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: *****
```

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?

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

Correct Answer: B

Section: Mixed Questions

Explanation

Explanation/Reference:

Section: Mixed Questions

QUESTION 78

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 3 problems.
- D. It has sub-second failure detection for layer 1 and layer 2 problems.

Correct Answer: D

Section: Mixed Questions

Explanation

Explanation/Reference:

Section: Mixed Questions

QUESTION 79

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

Section: Mixed Questions

Explanation

Explanation/Reference:

Section: Mixed Questions

Reference: <https://www.cisco.com/c/en/us/support/docs/ip/open-shortest-path-first-ospf/13684-12.html>

QUESTION 80

```
*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

Section: Mixed Questions

Explanation

Explanation/Reference:

Section: Mixed Questions

QUESTION 81

```
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
```

VCEup

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 eq snmp.

Correct Answer: B
Section: Mixed Questions
Explanation

Explanation/Reference:
Section: Mixed Questions

QUESTION 82

```
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: D

Section: Mixed Questions

Explanation

Explanation/Reference:

Section: Mixed Questions

QUESTION 83

```

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

```

VCEup

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

Correct Answer: D

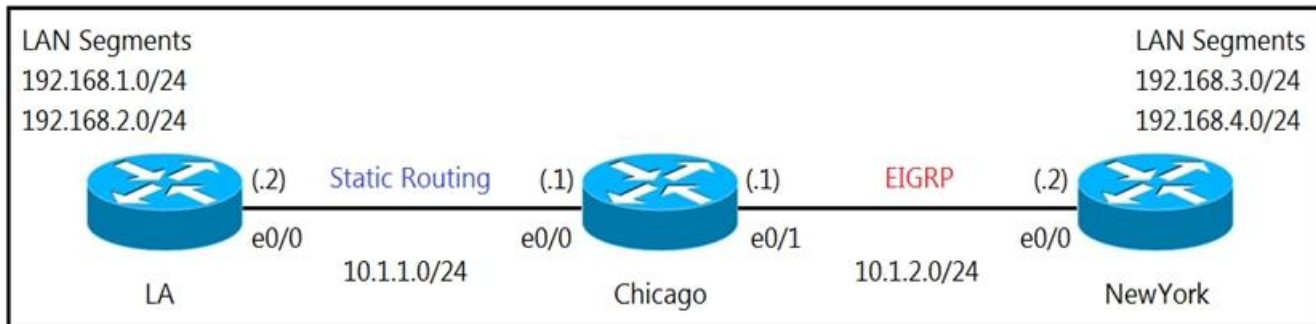
Section: Mixed Questions

Explanation

Explanation/Reference:

Section: Mixed Questions

QUESTION 84



Chicago Router

```
ip route 192.168.1.0 255.255.255.0 10.1.1.2
ip route 192.168.2.0 255.255.255.0 10.1.1.2
!
router eigrp 100
 redistribute static
```

LA Router

```
ip route 0.0.0.0 0.0.0.0 10.1.1.1
```

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

```
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
```

- 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 static metric 10 10 10 10 10
```

- D. Chicago Router

```
router eigrp 100
 redistribute connected
```

Correct Answer: D

Section: Mixed Questions

Explanation

Explanation/Reference:

Section: Mixed Questions

QUESTION 85

```
policy-map COPP-7600
  class COPP-CRITICAL-7600
    police cir 2000000 bc 62500
    conform-action transmit
    exceed-action transmit
  !
  class class-default
    police cir 200000 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
```

VCEUp

Refer to the exhibit. BGP is flapping after the CoPP policy is applied.

What are the two solutions to fix the issue? (Choose two.)

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

Correct Answer: BC

Section: Mixed Questions

Explanation

Explanation/Reference:

Section: Mixed Questions

QUESTION 86

```
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
```

VCEUp

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

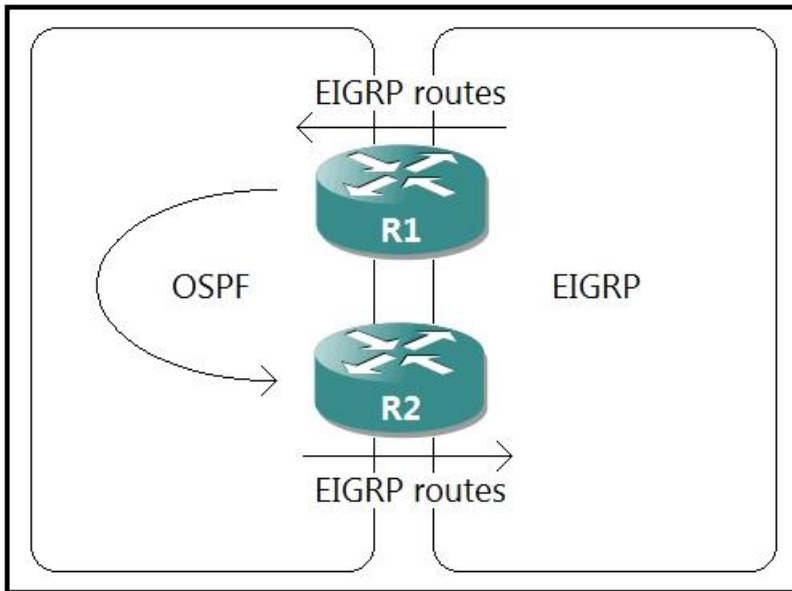
Section: Mixed Questions

Explanation

Explanation/Reference:

Section: Mixed Questions

QUESTION 87



Refer to the exhibit. A network administrator configured mutual redistribution on R1 and R2 routers, which caused instability in the network.

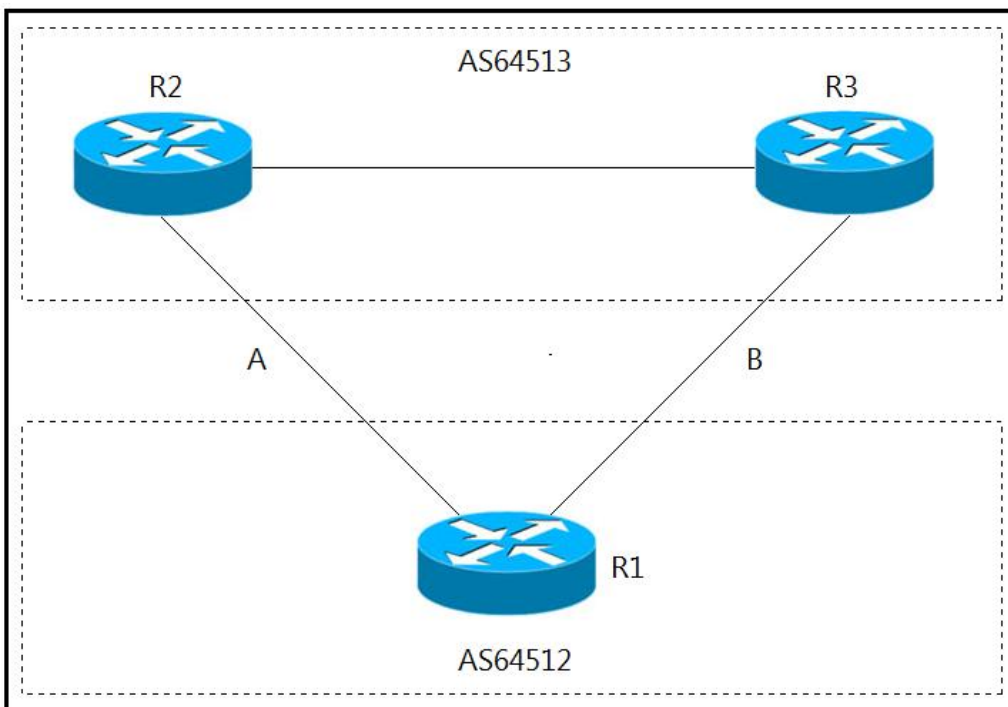
Which action resolves the issue?

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

Correct Answer: A
Section: Mixed Questions
Explanation

Explanation/Reference:
 Section: Mixed Questions

QUESTION 88



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 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
- 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 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

VCEup

Correct Answer: C
Section: Mixed Questions
Explanation

Explanation/Reference:
Section: Mixed Questions

QUESTION 89

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: 389362063 packets, 222009685077 bytes
```

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

- A. Packets are forwarded using normal route lookup.
- B. Packets are forwarded to the default gateway.
- C. Packets are dropped by the access list.
- D. Packets are evaluated by sequence 10.
- E. Packets are not evaluated by sequence 10.

Correct Answer: BD
Section: Mixed Questions
Explanation

Explanation/Reference:
Section: Mixed Questions

QUESTION 90

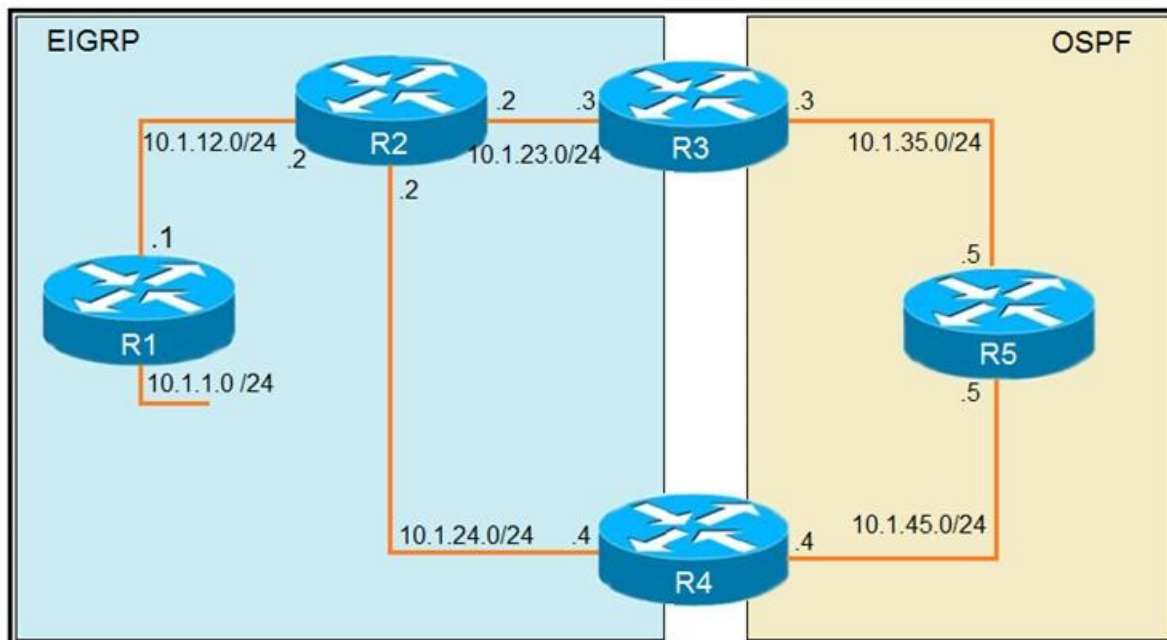
An engineer configured a Cisco router to send reliable and encrypted notifications for any events to the management server. It was noticed that the notification messages are reliable but not encrypted. Which action resolves the issue?

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

Correct Answer: B
Section: Mixed Questions
Explanation

Explanation/Reference:
Section: Mixed Questions

QUESTION 91

**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
```

VCEUp

Refer to the exhibits. 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

Section: Mixed Questions

Explanation

Explanation/Reference:

Section: Mixed Questions

QUESTION 92

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

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

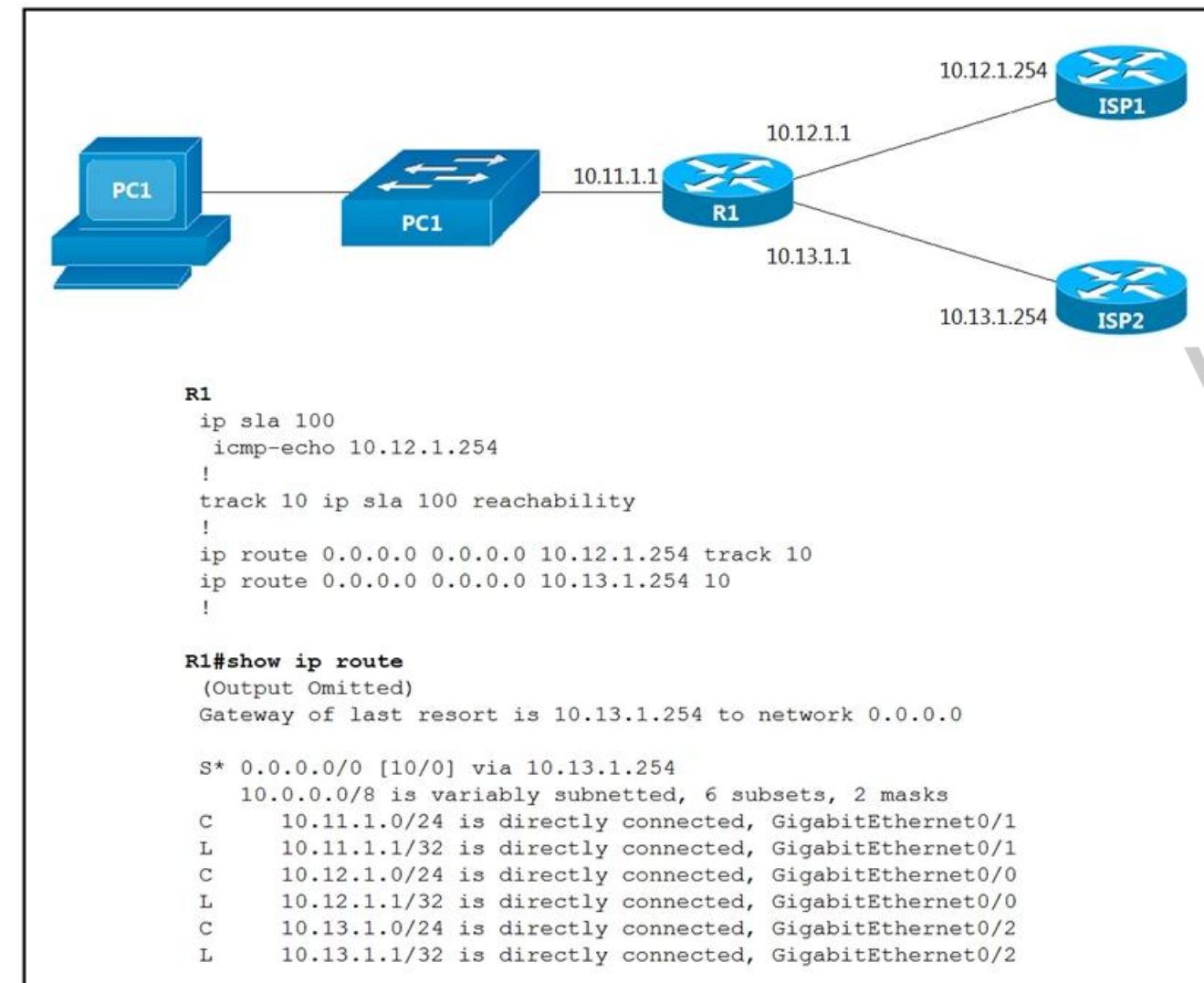
Correct Answer: AB

Section: Mixed Questions

Explanation

Explanation/Reference:

Section: Mixed Questions

QUESTION 93

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

How is this issue resolved?

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

D. Start IP SLA by defining frequency and scheduling it.

Correct Answer: D

Section: Mixed Questions

Explanation

Explanation/Reference:

Section: Mixed Questions

QUESTION 94

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 neighborhood is stuck in exstart state.

How does the administrator fix this issue?

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

Correct Answer: C

Section: Mixed Questions

Explanation

Explanation/Reference:

Section: Mixed Questions

QUESTION 95

Which protocol does MPLS use to support traffic engineering?

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

Correct Answer: B

Section: Mixed Questions

Explanation

Explanation/Reference:

Section: Mixed Questions

QUESTION 96

```
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: C

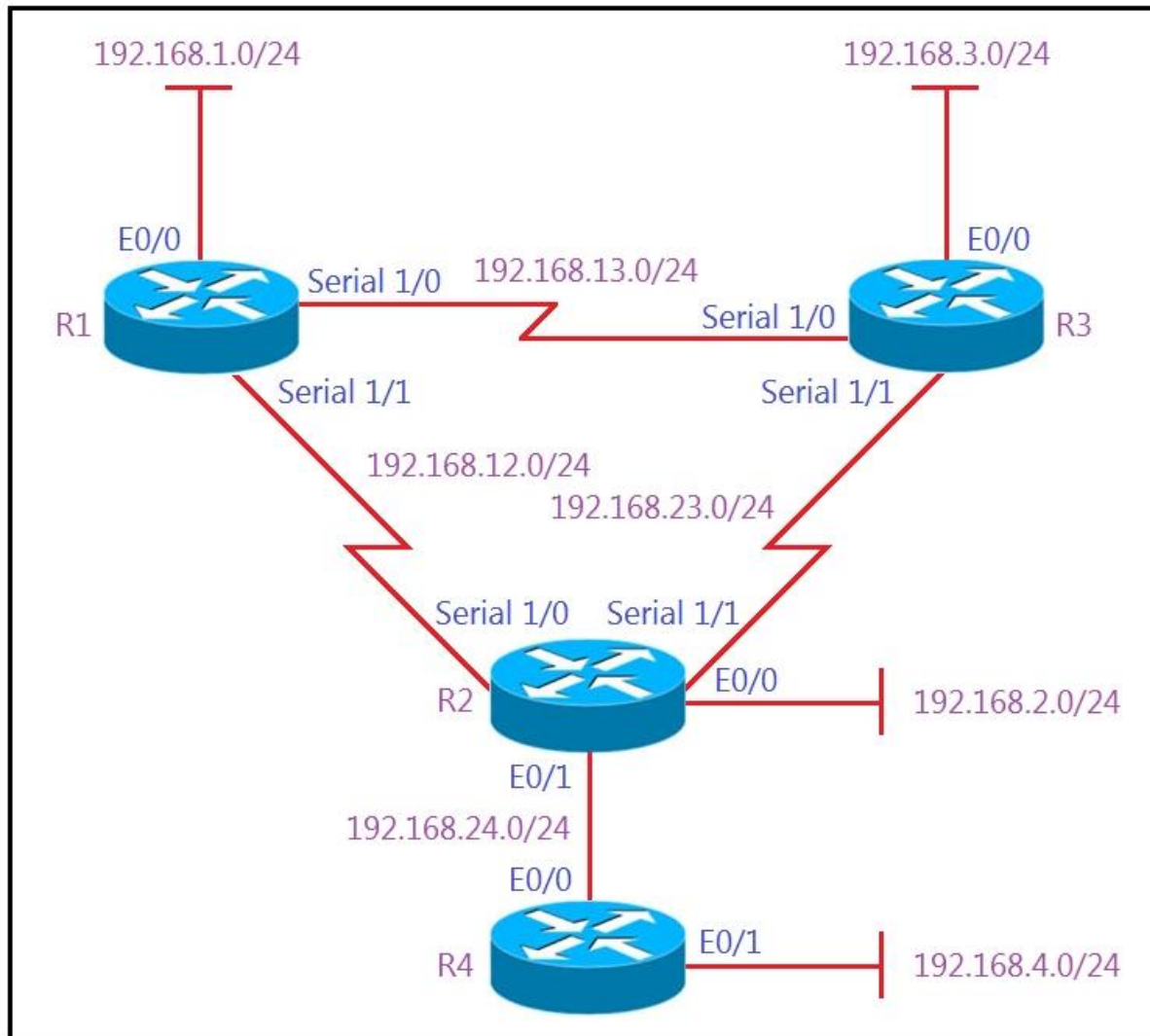
Section: Mixed Questions

Explanation

Explanation/Reference:

Section: Mixed Questions

QUESTION 97



Show IP route on R1

```

192.168.1.0/24 is variably subnetted, 2 subnets, 2 masks
C    192.168.1.0/24 is directly connected, Ethernet0/0
L    192.168.1.1/32 is directly connected, Ethernet0/0
D    192.168.2.0/24 [90/2297856] via 192.168.12.2, 00:02:14, Serial1/1
S    192.168.3.0/24 [1/0] via 192.168.12.2
192.168.12.0/24 is variably subnetted, 2 subnets, 2 masks
C    192.168.12.0/24 is directly connected, Serial1/1
L    192.168.12.1/32 is directly connected, Serial1/1
192.168.13.0/24 is variably subnetted, 2 subnets, 2 masks
C    192.168.13.0/24 is directly connected, Serial1/0
L    192.168.13.1/32 is directly connected, Serial1/0
D    192.168.23.0/24 [90/2681856] via 192.168.13.3, 00:06:38, Serial1/0
    [90/2681856] via 192.168.12.2, 00:06:38, Serial1/1
D    192.168.24.0/24 [90/2195456] via 192.68.12.2, 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. Remove the static route on R1.
- C. Change the Administrative Distance of EIGRP to 5.
- D. Redistribute the R1 static route to EIGRP.

Correct Answer: B

Section: Mixed Questions

Explanation

Explanation/Reference:

Section: Mixed Questions

QUESTION 98

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

Correct Answer: D

Section: Mixed Questions

Explanation

Explanation/Reference:

Section: Mixed Questions

QUESTION 99

DRAG DROP

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

Select and Place:

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

Correct Answer:

	Exchange
	2-way
	Loading
	ExStart
	Init
	Down

Section: Layer 3 Technologies
Explanation

Explanation/Reference:

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

QUESTION 100

DRAG DROP

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

Section: VPN Technologies
 Explanation

Explanation/Reference:

QUESTION 101
 DRAG DROP

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

Select and Place:

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

Correct Answer:

	multiprotocol BGP
	Resource Reservation Protocol
	route distinguisher
	route target

Section: VPN Technologies
 Explanation

Explanation/Reference:

QUESTION 102
 DRAG DROP

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

Select and Place:

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

Correct Answer:

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

Section: Infrastructure Security
Explanation

Explanation/Reference:

QUESTION 103 DRAG DROP

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

Correct Answer:

	permit ip 2001:D8B:800:200C::c/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

Section: Infrastructure Security
Explanation

Explanation/Reference:

QUESTION 104
DRAG DROP

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

Correct Answer:

	DHCPNAK
	DHCPDECLINE
	DHCPACK
	DHCPINFORM

Section: Infrastructure Services
Explanation

Explanation/Reference:

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

QUESTION 105
DRAG DROP

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

Select and Place:

community string
username and password
authentication
no encryption
privileged
read-only

SNMPv2c

SNMPv3

Correct Answer:

SNMPv2c

community string

no encryption

read-only

SNMPv3

username and password

authentication

privileged

Section: Infrastructure Services
Explanation

Explanation/Reference:

QUESTION 106

DRAG DROP

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

Select and Place:

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

Correct Answer:

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

Section: Mixed Questions

Explanation

Explanation/Reference:

QUESTION 107

DRAG DROP

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

Select and Place:

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

Correct Answer:

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

Section: Mixed Questions

Explanation

Explanation/Reference:

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

QUESTION 108

DRAG DROP

```

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

```

VCEUp

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

Select and Place:

no password	vty0
ocsic	username
no username	password
LetMeIn	vty1
cisco	username
LetMeIn	password

Correct Answer:

	vty0
	cisco
	ocsic
LetMeIn	vty1
	no username
LetMeIn	no password

Section: Mixed Questions**Explanation****Explanation/Reference:****QUESTION 109**

DRAG DROP

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

Select and Place:

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

Correct Answer:

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

Section: Mixed Questions
Explanation

Explanation/Reference:

QUESTION 110

Refer to the exhibit. R1 and R2 cannot establish an EIGRP adjacency.

```

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

```

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 passive-interface command to the R1 configuration so that it matches the R2 configuration.
- C. Remove the passive-interface command from the R2 configuration so that it matches the R1 configuration.
- D. Add the no auto-summary command to the R2 configuration so that it matches the R1 configuration.

Correct Answer: C

Section: Layer 3 Technologies

Explanation

Explanation/Reference:

Section: Layer 3 Technologies

QUESTION 111

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

Correct Answer: D

Section: Layer 3 Technologies

Explanation

Explanation/Reference:

Section: Layer 3 Technologies

QUESTION 112

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.

```
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
```

Which action resolves this issue?

- A. Remove the prefix keyword from the distribute-list command.
- 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 line with the sequence number 5 from the prefix list.

Correct Answer: D

Section: Layer 3 Technologies

Explanation

Explanation/Reference:

Section: Layer 3 Technologies

QUESTION 113

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.

```

IPv6 unicast-routing
!
Router ospfv3 4
  Router-id 192.168.1.1
!
Interface E 0/0
  IPv6 enable
  Ip address 10.1.1.1 255.255.255.0
  Ospf3 4 area 0 ipv4
  No shut
!
Interface Loopback0
  IPv6 enable
  IPv4 172.16.1.1 255.255.255.0
  Ospf3 4 area 0 ipv4

```

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

Correct Answer: B

Section: Layer 3 Technologies

Explanation

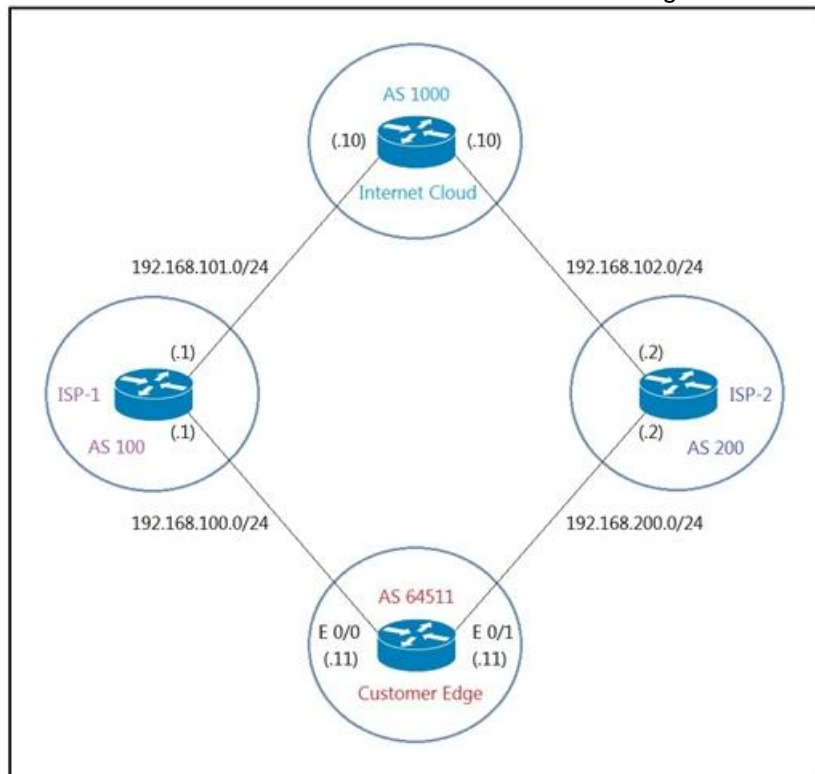
Explanation/Reference:

Section: Layer 3 Technologies

VCEUp

QUESTION 114

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**
aggregate-address 172.16.20.0 255.255.252.0 summary-only
- B. **router bgp 64511**
neighbor 192.168.100.1 summary-only
neighbor 192.168.200.2 summary-only
- C. **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 BLOCK_SPECIFIC 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
- D. **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

Correct Answer: A

Section: Layer 3 Technologies

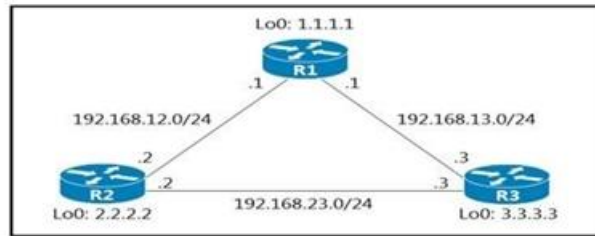
Explanation

Explanation/Reference:

Section: Layer 3 Technologies

QUESTION 115

Refer to the exhibit. R2 has two paths to reach 192.168.13.0/24, but traffic is sent only through R3.



```
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
  Routing Descriptor Blocks
  * 192.168.23.3, from 192.168.23.3, 00:00:57 ago, via FastEthernet0/1
    Route metric is 1075200, traffic share count is 1
    Total delay is 2000 microseconds, minimum bandwidth is 2500 Kbit
    Reliability 255/255, minimum MTU 1500 bytes
    Loading 255/255, Hops 1
```

VCEup

Which action allows traffic to use both paths?

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

Correct Answer: A

Section: Layer 3 Technologies

Explanation

Explanation/Reference:

Section: Layer 3 Technologies

QUESTION 116

Refer to the exhibit. The OSPF neighbor relationship is not coming up.

```
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
```

What must be configured to restore OSPF neighbor adjacency?

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

Correct Answer: D

Section: Layer 3 Technologies

Explanation

Explanation/Reference:

Section: Layer 3 Technologies

QUESTION 117

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. MED
- D. LOCAL_PREF

Correct Answer: D

Section: Layer 3 Technologies

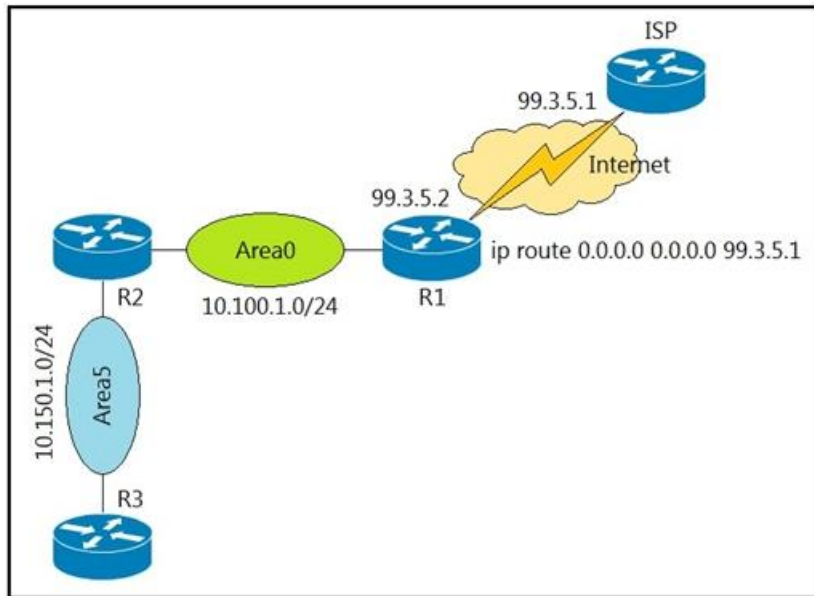
Explanation

Explanation/Reference:

Section: Layer 3 Technologies

QUESTION 118

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

Section: Layer 3 Technologies

Explanation

Explanation/Reference:

Section: Layer 3 Technologies

QUESTION 119

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

Correct Answer: D

Section: VPN Technologies

Explanation

Explanation/Reference:

Section: VPN Technologies

QUESTION 120

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

Section: VPN Technologies**Explanation****Explanation/Reference:**

Section: VPN Technologies

QUESTION 121

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

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

Correct Answer: CD

Section: VPN Technologies**Explanation****Explanation/Reference:**

Section: VPN Technologies

QUESTION 122

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

Section: VPN Technologies**Explanation****Explanation/Reference:**

Section: VPN Technologies

QUESTION 123

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

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

Correct Answer: BC

Section: Infrastructure Security**Explanation****Explanation/Reference:**

Section: Infrastructure Security

QUESTION 124

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

Correct Answer: B

Section: Infrastructure Security

Explanation

Explanation/Reference:

Section: Infrastructure Security

QUESTION 125

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

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

Correct Answer: BC

Section: Infrastructure Security

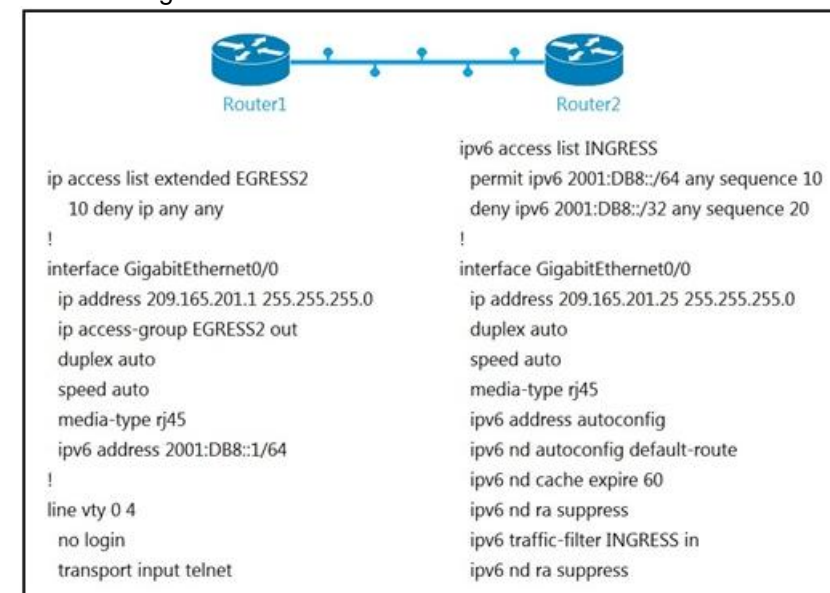
Explanation

Explanation/Reference:

Section: Infrastructure Security

QUESTION 126

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: C

Section: Infrastructure Security

Explanation

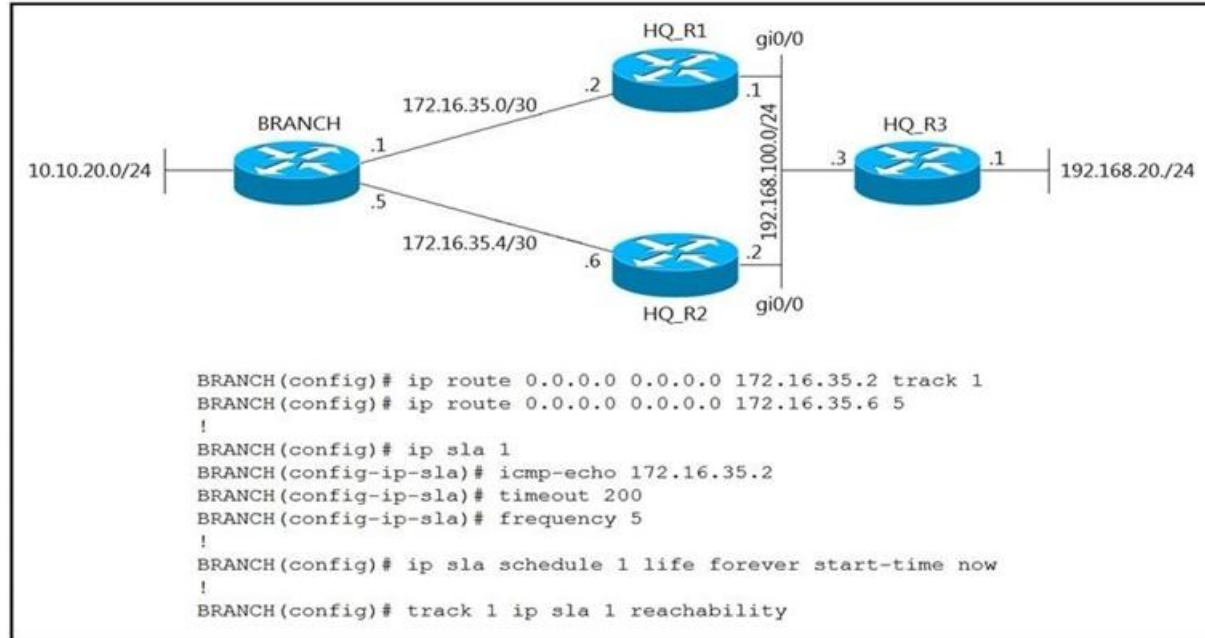
Explanation/Reference:

Section: Infrastructure Security

QUESTION 127

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

VCEUp

Correct Answer: D**Section: Infrastructure Services****Explanation****Explanation/Reference:**

Section: Infrastructure Services

QUESTION 128

An engineer configured a DHCP server for Cisco IP phones to download its configuration from a TFTP server, 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**Section: Infrastructure Services****Explanation****Explanation/Reference:**

Section: Infrastructure Services

QUESTION 129

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

```
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
!
```

- A. Modify the flow transport command transport udp 2055 to move under flow monitor profile.
- B. Modify the interface command to ip flow monitor FLOW-MONITOR-1 input.
- C. Modify the udp port under flow exporter profile to ip transport udp 4739.
- D. Modify the flow record command record v4_r1 to move under flow exporter profile.

Correct Answer: B

Section: Infrastructure Services

Explanation

Explanation/Reference:

Section: Infrastructure Services

QUESTION 130

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?

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 17179272
ntp server 161.181.92.152
```

Debug output:

```
router#show clock
14:12:26.312 PDT Thu Apr 27 2019
router#config t
Enter configuration commands, one per line. End with CNTL/Z.
router(config)#exit

router#
Apr 27 21:12:28: %SYS-5-CONFIG_I: Configured from console by vty0
```

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

Correct Answer: D**Section: Infrastructure Services****Explanation****Explanation/Reference:**

Section: Infrastructure Services

QUESTION 131

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?

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
```

- A. Configure syslog level 2.
- B. Configure syslog level 3.

- C. Configure syslog level 4.
- D. Configure syslog level 5.

Correct Answer: D

Section: Infrastructure Services

Explanation

Explanation/Reference:

Section: Infrastructure Services

QUESTION 132

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 logging synchronous level all command.
- C. Configure the logging synchronous command.
- D. Configure the no logging console debugging command globally.

Correct Answer: C

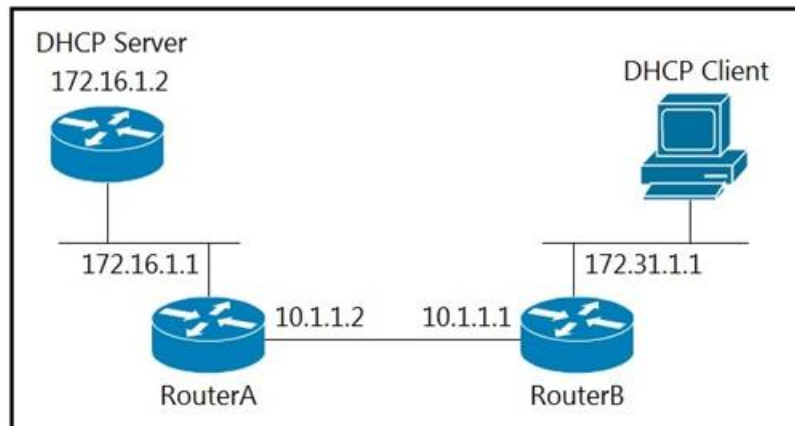
Section: Infrastructure Services

Explanation

Explanation/Reference:

Section: Infrastructure Services

QUESTION 133



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 ID 394992960

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

Correct Answer: C

Section: Infrastructure Services

Explanation

Explanation/Reference:

Section: Infrastructure Services

QUESTION 134

Filter

Priority	Issue Type	Device Role	Category	Issue Count	Site Count (Area)	Device Count
P2	Layer 2 loop symptoms	DISTRIBUTION	Connectivity	48	1	2

Layer 2 loop symptoms

Feb

2 Open issues

1 Area
1 Buildings, 0 Floors





2 DISTRIBUTION

Filter

Issue	Site	Device	Device Type	Issue Count
Host flaps observed in 1 VLAN(s)	USA/SF	SF-D9300-1	Cisco Catalyst 9300 Switch	24
Host flaps observed in 1 VLAN(s)	USA/SF	SF-D9300-2	Cisco Catalyst 9300 Switch	24

Potential Loop Details

Filter Find

	Device	Role	Port in loop	Duplex	VLAN in loop
 	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 portfast bpduguard
- B. no spanning-tree uplinkfast
- C. spanning-tree backbonefast
- D. spanning-tree loopguard default

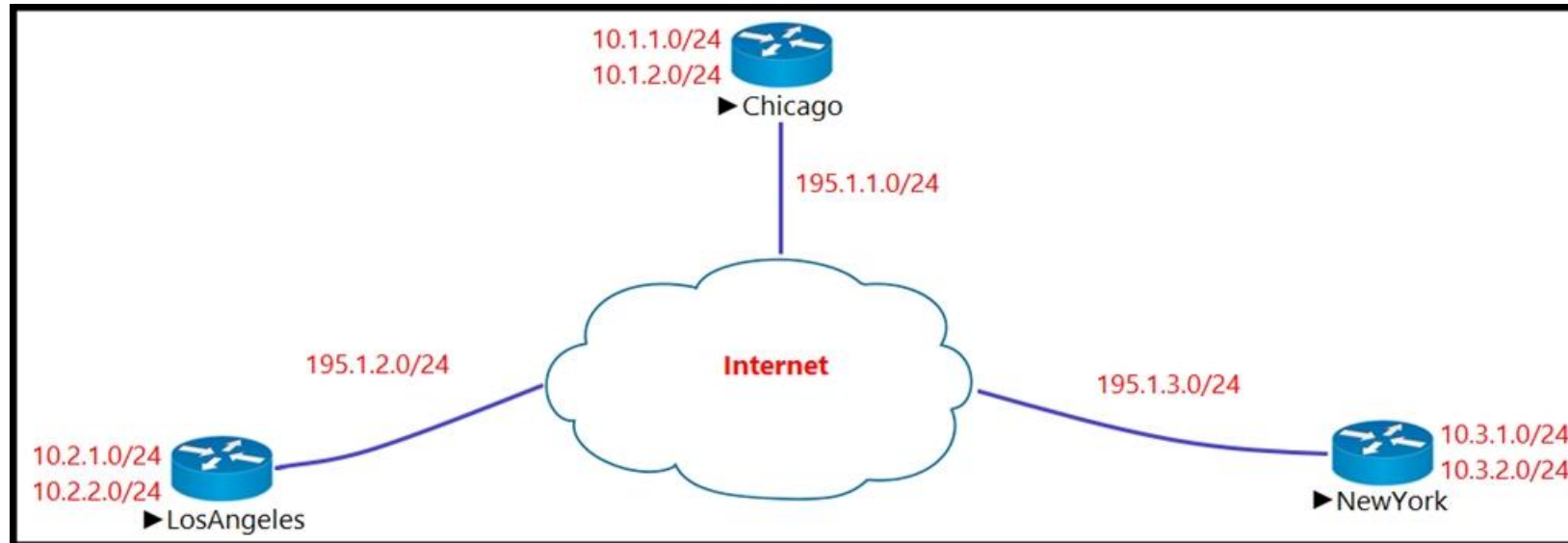
Correct Answer: A

Section: Mixed Questions

Explanation

Explanation/Reference:

QUESTION 135



Chicago

```

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

VCEUp

Refer to the exhibit. The Los Angeles and New York routers are receiving routers from Chicago but not from each other.

Which configuration fixes the issue?

- A. **interface Tunnel1**
no ip split-horizon eigrp 111
- B. **interface Tunnel1**
ip next-hop-self eigrp 111
- C. **interface Tunnel1**
tunnel mode ipsec ipv4
- D. **interface Tunnel1**
tunnel protection ipsec profile IPSec-PROFILE

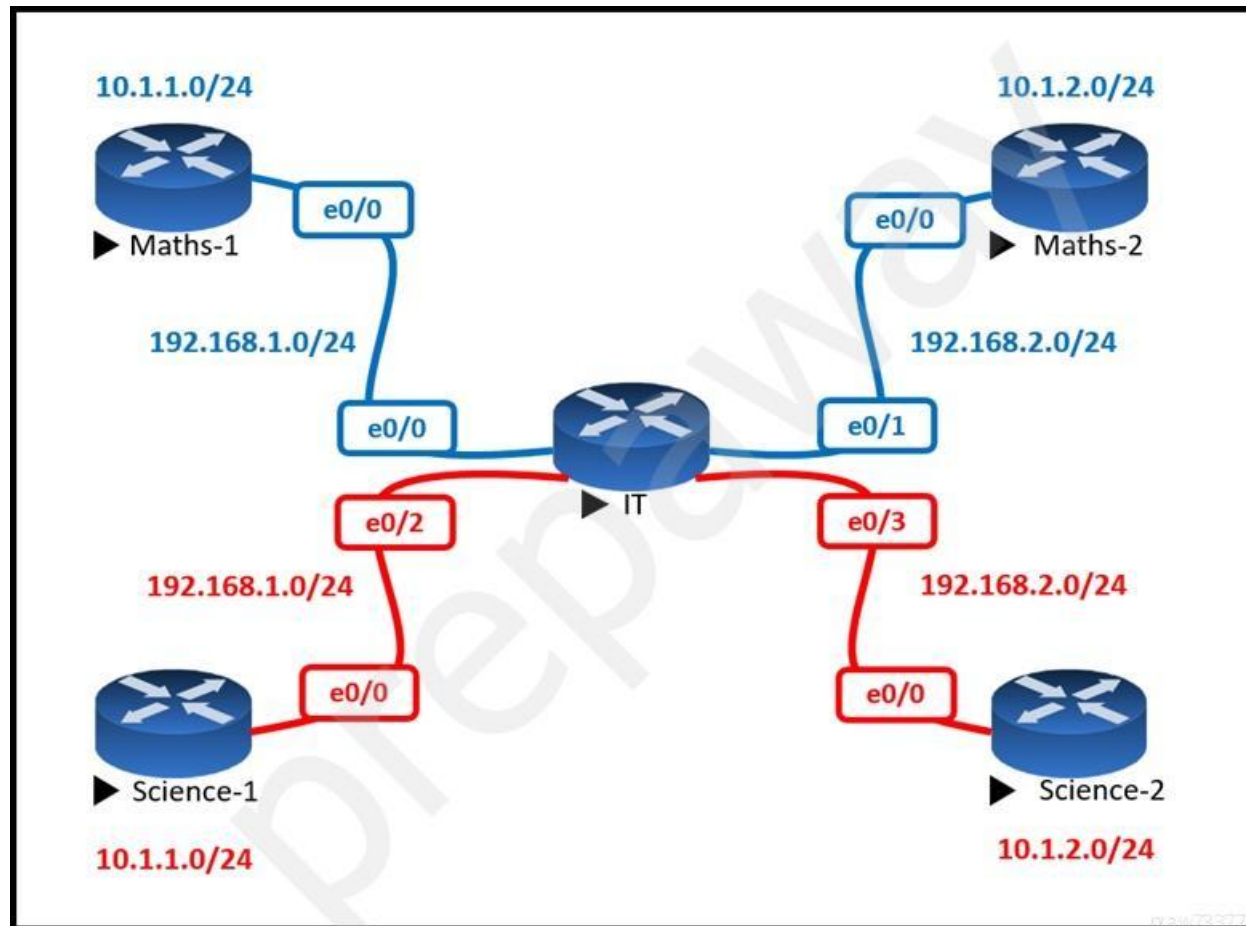
Correct Answer: A

Section: Mixed Questions

Explanation

Explanation/Reference:

QUESTION 136



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**
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
- B. **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

C. 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

D. 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
```

Correct Answer: B
Section: Mixed Questions
Explanation

Explanation/Reference:

QUESTION 137

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

Correct Answer: CD

Section: Mixed Questions

Explanation

Explanation/Reference:

QUESTION 138

```

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

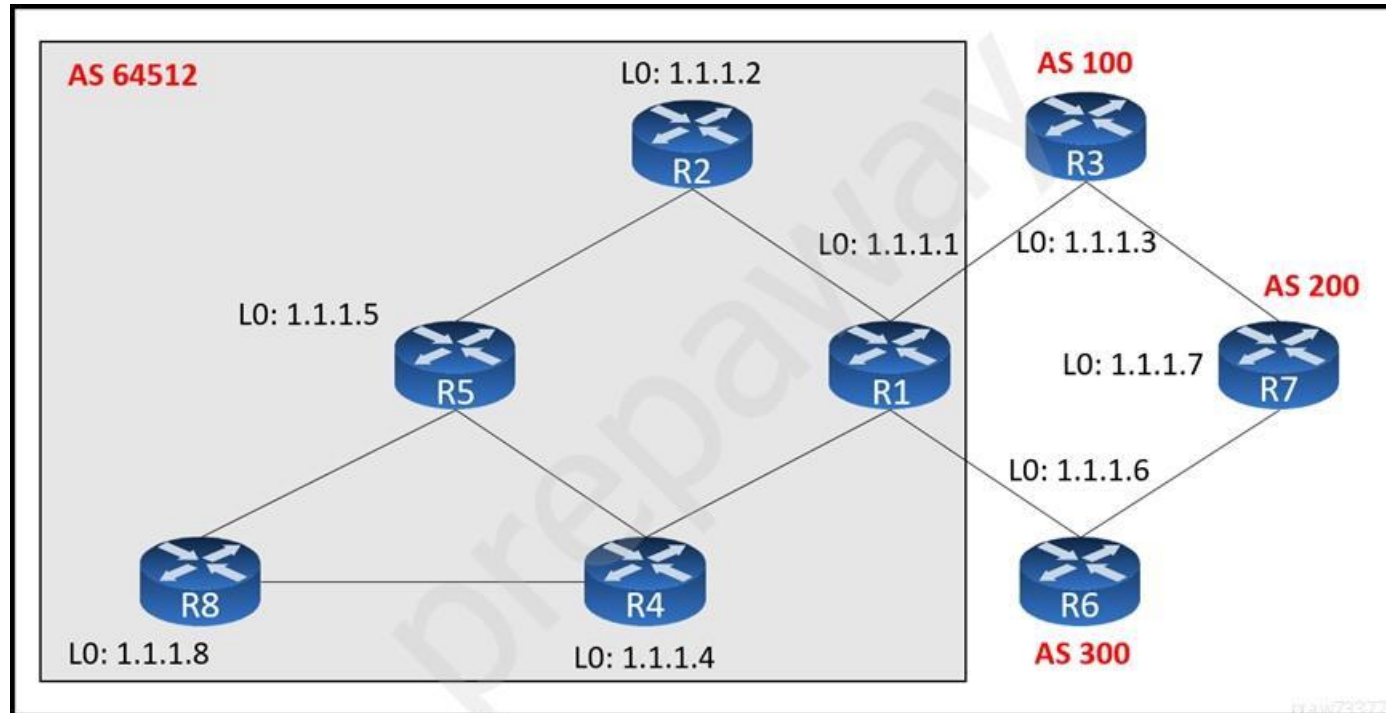
Correct Answer: D

Section: Mixed Questions

Explanation

Explanation/Reference:

QUESTION 139



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

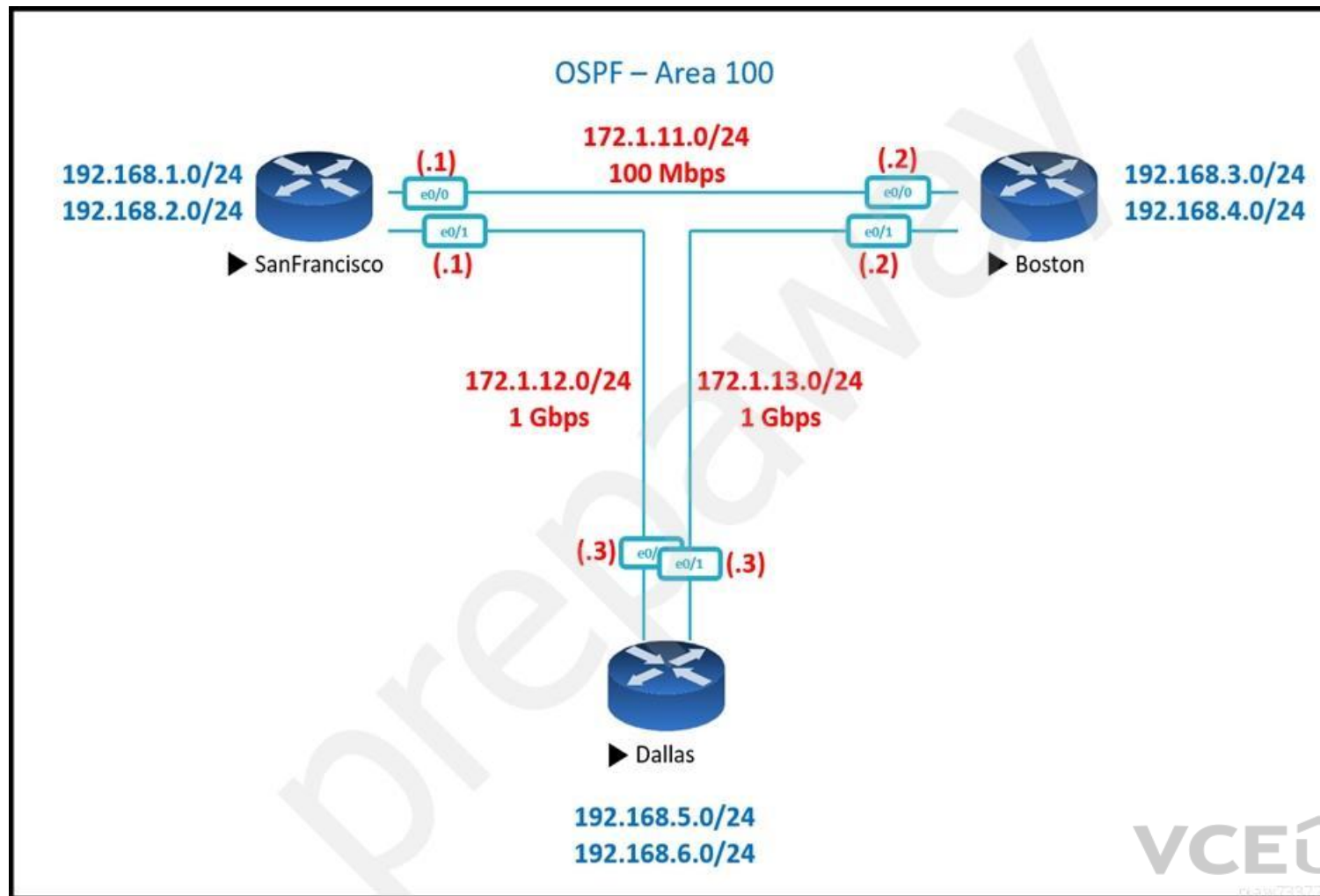
Correct Answer: C

Section: Mixed Questions

Explanation

Explanation/Reference:

QUESTION 140



Show IP Route – San Francisco Router

Gateway of last resort is not set

```

172.1.0.0/16 is variably subnetted, 5 subnets, 2 masks
C   172.1.11.0/24 is directly connected, Ethernet0/0
L   172.1.11.1/32 is directly connected, Ethernet0/0
C   172.1.12.0/24 is directly connected, Ethernet0/0
L   172.1.12.1/32 is directly connected, Ethernet0/0
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

```

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
    [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, Ethernet0/0
L   172.1.13.3/32 is directly connected, Ethernet0/0
O   192.168.1.0/24 [110/11] via 172.1.12.1, 00:04:44, Ethernet0/0
O   192.168.2.0/24 [110/11] via 172.1.12.1, 00:04:44, Ethernet0/0
O   192.168.3.0/24 [110/11] via 172.1.13.2, 00:04:44, Ethernet0/1
O   192.168.4.0/24 [110/11] 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

```

VCEup

Refer to the exhibits. SanFrancisco and Boston routers are choosing slower links to reach each other despite the direct links being up.

Which configuration fixes the issue?

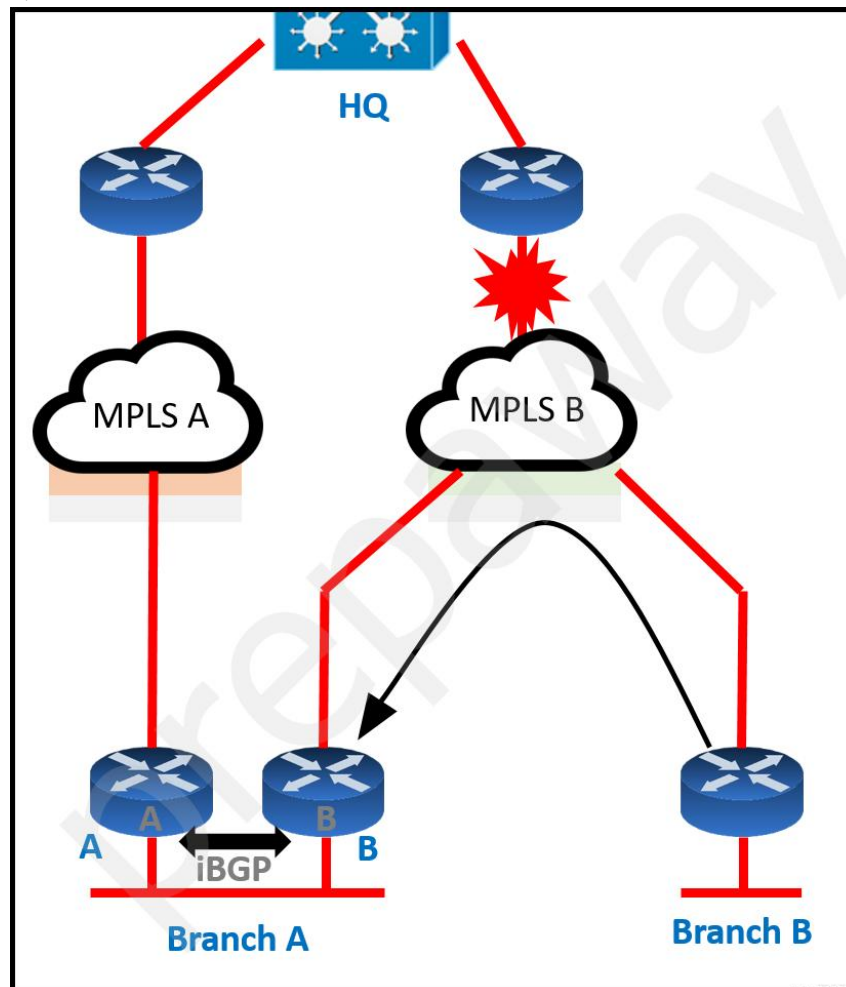
- A. All Routers
 - router ospf 1
 - auto-cost reference-bandwidth 100
- B. SanFrancisco Router
 - router ospf 1

- auto-cost reference-bandwidth 1000
- C. Boston Router
router ospf 1 auto-cost reference-bandwidth 1000
- D. All Routers
router ospf 1 auto-cost reference-bandwidth 1000

Correct Answer: D
Section: Mixed Questions
Explanation

Explanation/Reference:

QUESTION 141



Refer to the exhibit. Troubleshoot and ensure that branch B only ever uses the MPLS B network to reach HQ.

Which action achieves this requirement?

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

Correct Answer: B
Section: Mixed Questions
Explanation

Explanation/Reference:

QUESTION 142

Router Configuration:

```

router ospf 0.0.0.0
 network 2.0.0.0 0.255.255.255 area 0.0.0.0
!
router bgp 100
 redistribute ospf 0.0.0.0
!
 neighbor 3.3.3.2 remote-as 200
!
end

```

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, Ethernet 0/0
O E1 200.2.2.0/24 [110/104] via 2.2.2.2, 00:00:41, Ethernet 0/0
      131.108.0.0/24 is subnetted, 2 subnets
O   131.108.2.0 [110/74] via 2.2.2.2, 00:16:17, Ethernet 0/0
O IA 131.108.1.0 [110/74] via 2.2.2.2, 00:16:17, Ethernet 0/0

```

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	?

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?

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

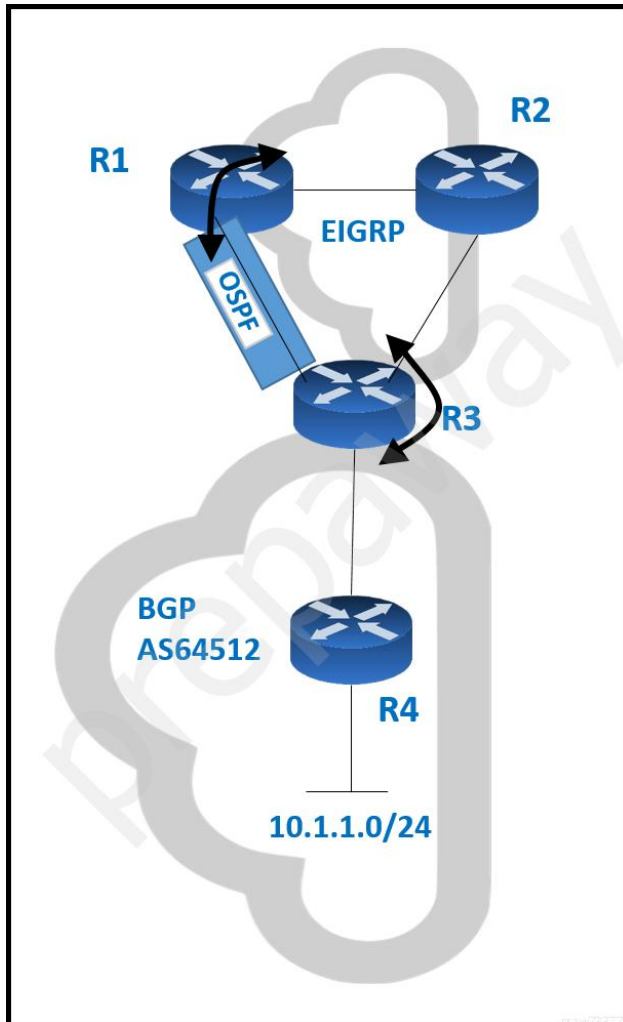
Correct Answer: C

Section: Mixed Questions

Explanation

Explanation/Reference:

QUESTION 143



VCEUp

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

Correct Answer: B

Section: Mixed Questions

Explanation

Explanation/Reference:

QUESTION 144

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

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

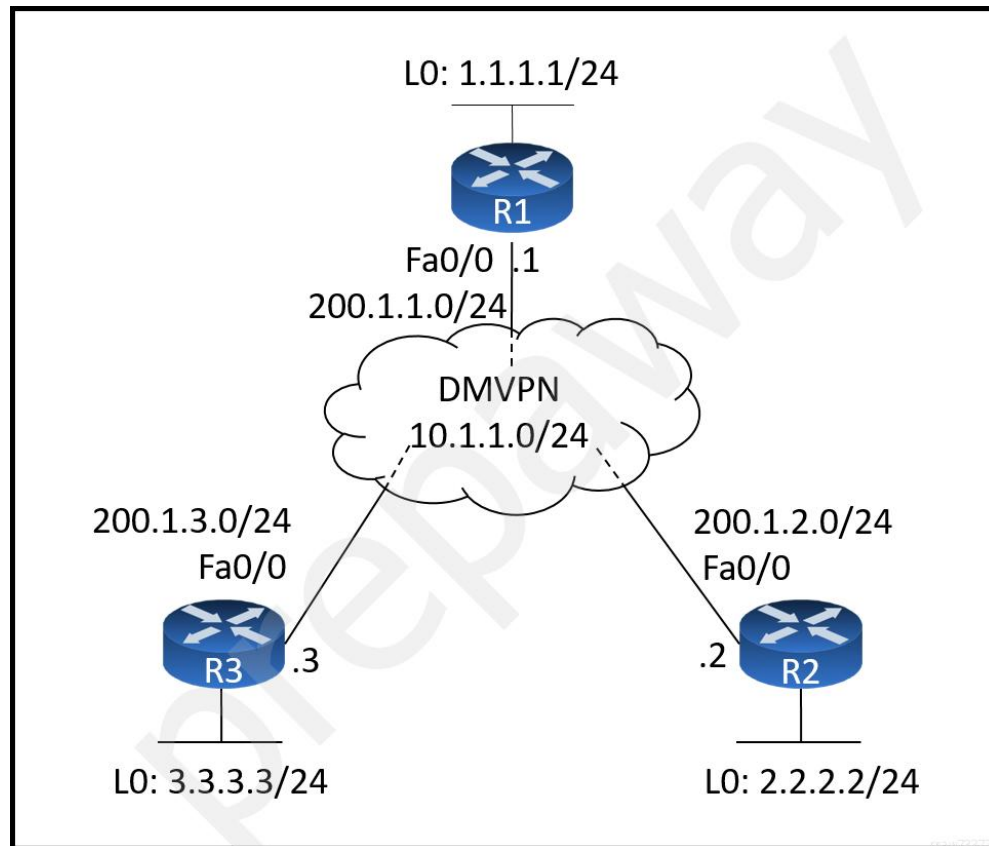
Correct Answer: C

Section: Mixed Questions

Explanation

Explanation/Reference:

QUESTION 145



```

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-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

```

Refer to the exhibits.

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 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

Section: Mixed Questions

Explanation

Explanation/Reference:

QUESTION 146

How does an MPLS Layer 3 VPN function?

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

Correct Answer: B

Section: Mixed Questions

Explanation

Explanation/Reference:

QUESTION 147

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

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

Correct Answer: BC

Section: Mixed Questions

Explanation

Explanation/Reference:

QUESTION 148

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 I2-src
- B. ip verify unicast source reachable-via allow-default
- C. ip verify unicast source reachable-via any
- D. ip verify unicast source reachable-via rx

Correct Answer: C

Section: Mixed Questions

Explanation

Explanation/Reference:

QUESTION 149

```
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. When monitoring an IPv6 access list, an engineer notices that the ACL does not have any hits and is causing unnecessary traffic through the interface

Which command must be configured to resolve the issue?

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

Correct Answer: B

Section: Mixed Questions

Explanation

Explanation/Reference:

Reference: <https://www.cisco.com/c/en/us/support/docs/ip/ip-version-6/113126-ipv6-acl-00.html>

QUESTION 150

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

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

Correct Answer: B

Section: Mixed Questions

Explanation

Explanation/Reference:

QUESTION 151

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 k0AyUudDrfOgO4s
authorization exec VTY_AUTH
login authentication VTY_AUTH
```

```
!
```

Debug Output

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

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 0
- D. Configure aaa authorization login command on line vty 0 4

Correct Answer: A

Section: Mixed Questions

Explanation

Explanation/Reference:

Reference: <https://community.cisco.com/t5/network-access-control/console-authorization-issue/td-p/2492619>

QUESTION 152

Debug output:

username: USER55

password:

Aug 26 12:39:23.812: TPLUS: Queuing AAA Authentication request 4950 for processing

Aug 26 12:39:23.812: TPLUS(00001356) login timer started 1020 sec timeout

Aug 26 12:39:23.812: TPLUS: processing authentication continue request id 4950

Aug 26 12:39:23.812: TPLUS: Authentication continue packet generated for 4950

Aug 26 12:39:23.812: TPLUS(00001356)/0/WRITE/3A72C8D0: Started 5 sec timeout

!

!----- output omitted -----!

!

Aug 26 12:40:01.241: TAC+: using previously set server 192.168.1.3 from group tacacs+

Aug 26 12:40:01.241: TAC+: Opening TCP/IP to 192.168.1.3/49 timeout=5

Aug 26 12:40:01.249: TAC+: Opened TCP/IP handle 0x3BE31D1C to 192.168.1.3/49

Aug 26 12:40:01.249: TAC+: Opened 192.168.1.3 index=1

Aug 26 12:40:01.250: TAC+: 192.168.1.3 (3653537180) AUTOR/START queued

Aug 26 12:40:01.449: TAC+: (3653537180) AUTOR/START processed

Aug 26 12:40:01.449: TAC+: (-641430116): received author response status = FAIL

Aug 26 12:40:01.450: TAC+: Closing TCP/IP 0x3BE31D1C connection to 192.168.1.3/49

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

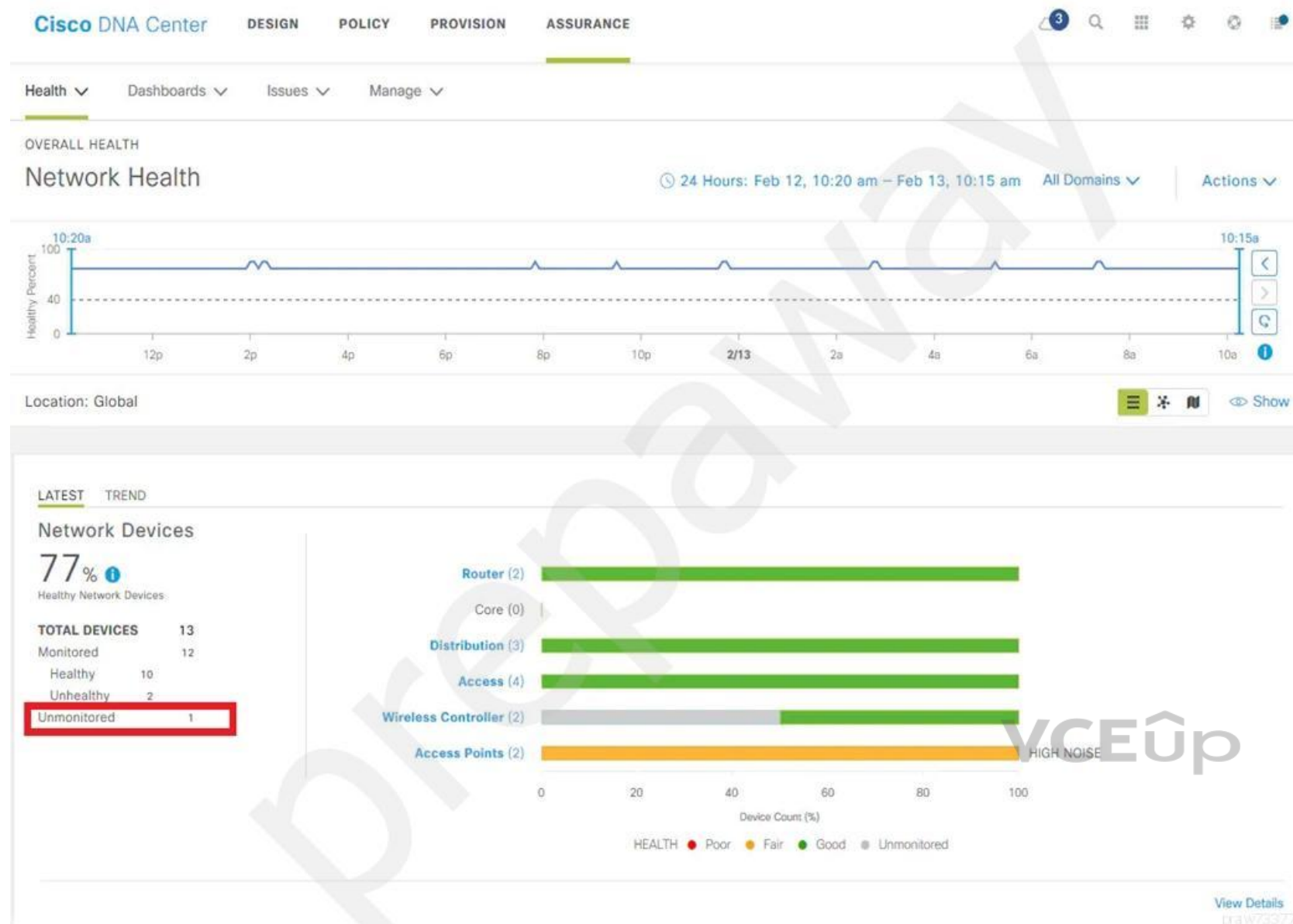
Correct Answer: D

Section: Mixed Questions

Explanation

Explanation/Reference:

QUESTION 153



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

Correct Answer: B

Section: Mixed Questions

Explanation

Explanation/Reference:

QUESTION 154

The screenshot shows the Cisco DNA Center Assurance page. The top navigation bar includes 'DESIGN', 'POLICY', 'PROVISION', and 'ASSURANCE'. The left sidebar shows 'Health' and 'Dashboard' tabs, with a 'LATEST' section displaying '80% Health' and a 'Router' icon. The main content area displays an issue titled 'Excessive time lag between Cisco DNS Center and WLC "WLC-5520"'. The issue status is 'Open' and it occurred on 'Dec 14, 2018 5:1'. The description states: 'The time in Cisco DNA Center and WLC "WLC-5520" has drifted too far apart. The drift between the two devices is "61.8 minutes. Cisco DNA Center cannot process the wireless client data successfully if the time difference is more than 10 minutes.' The suggested actions are: 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, annually 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 resolve reachability between Cisco DNA Center and the NTP server
- C. Check and resolve reachability between the WLC and the NTP server
- D. Check and configure NTP on the WLC and synchronize with Cisco DNA Center

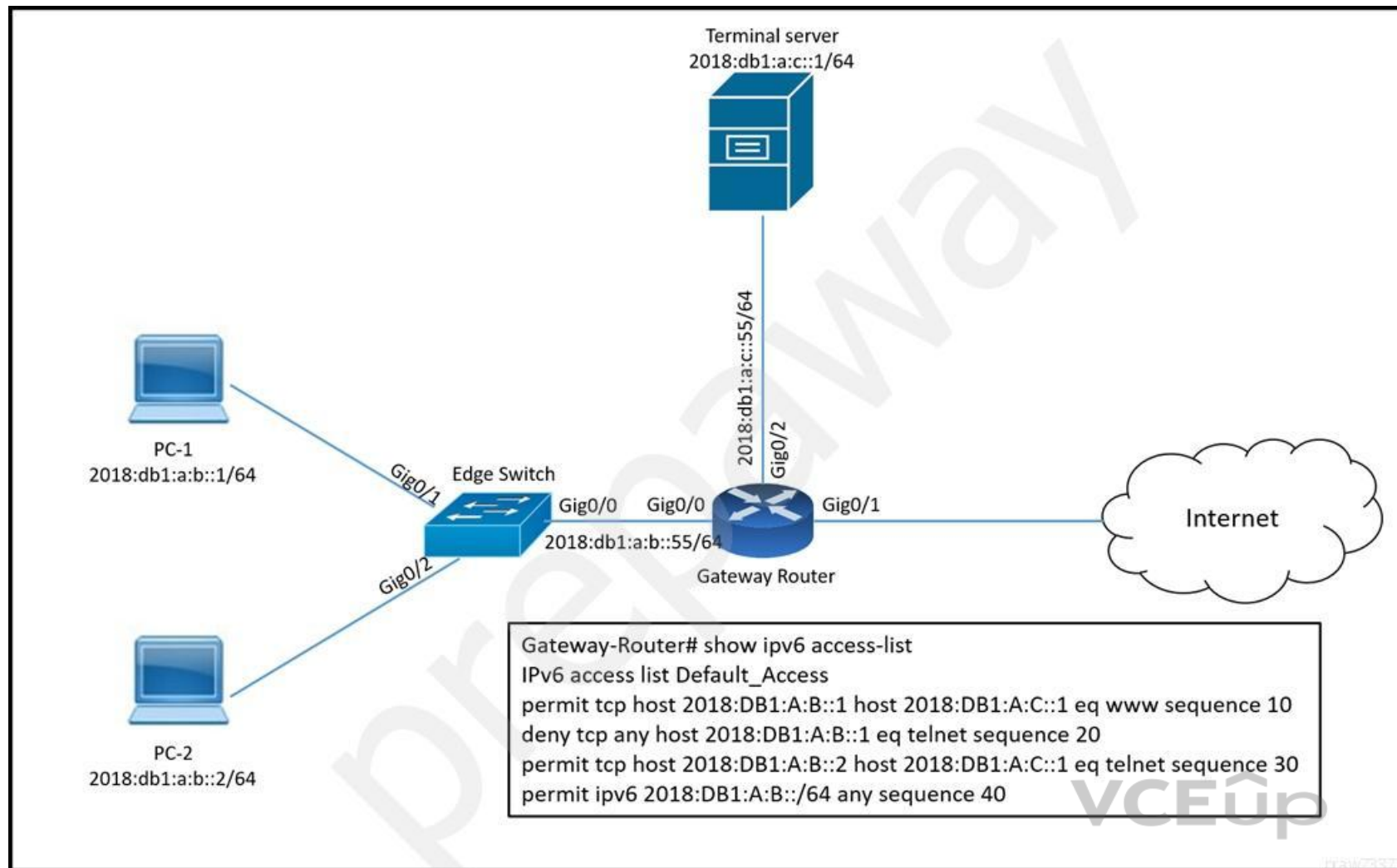
Correct Answer: D

Section: Mixed Questions

Explanation

Explanation/Reference:

QUESTION 155



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)#sequence 25 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)#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

Section: Mixed Questions

Explanation

Explanation/Reference:

QUESTION 156

```

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 Snooping(hlrm_set_if_input): Setting if_input to Po2 for pak. Was V11
Jan 9 15:29:31.509:DHCP Snooping(hlrm_set_if_input): Setting if_input to V11 for pak. Was Po2
Jan 9 15:29:31.509:DHCP Snooping(hlrm_set_if_input): Setting if_input to Po2 for pak. Was V11Jan 9
15:29:31.517: DHCP_SNOOPING: 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 (Port-channel2) as a trusted port. Clients are not receiving an IP address, but when DHCP snooping is disabled, clients start receiving IP addresses.

Which global command resolves the issue?

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

Correct Answer: D

Section: Mixed Questions

Explanation

Explanation/Reference:

Reference:

<https://community.cisco.com/t5/switching/dhcp-snooping-clients-not-getting-ip-address/td-p/1749969>

QUESTION 157

A customer reports to the support desk that they cannot print from their PC to the local printer id:123456789. Which tool must be used to diagnose the issue using Cisco DNA Center Assurance?

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

Correct Answer: C

Section: Mixed Questions

Explanation

Explanation/Reference:

QUESTION 158

DRAG DROP

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

Select and Place:

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

Correct Answer:

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

Section: Mixed Questions
Explanation

Explanation/Reference: