Cisco

Exam Questions 642-883

SPROUTE Deploying Cisco Service Provider Network Routing (SPROUTE)

NEW QUESTION 1
In an AS with 10 routers running IBGP, how many IBGP sessions will be required to establish fully meshed IBGP peerings?

A. 10
B. 20
C. 45
D. 50
E. 99
F. 100

Answer: C

NEW QUESTION 2
Refer to the Cisco IOS XR route policy exhibit.

```
route-policy SetLP
if med eq 10 then
set local-preference 200
endif
if local-preference eq 100 then
set weight 100
endif
if local-preference eq 200 then
set weight 200
endif
end-policy
```

If the original incoming routing update has an MED of 10 and a local preference of 100, how will the routing update be modified?

A. The local preference will be set to 100, the MED will be set to 10, and the weight will be set to 100.
B. The local preference will be set to 100, the MED will be set to 10, and the weight will be set to 200.
C. The local preference will be set to 200, the MED will be set to 10, and the weight will be set to 100.
D. The local preference will be set to 200, the MED will be set to 10, and the weight will be set to 200.

Answer: C

NEW QUESTION 3
Which two unique attributes are used for the loop prevention mechanism when route reflectors are deployed in a network? (Choose two.)

A. local preference
B. originator-ID
C. AS-path
D. next-hop
E. origin
F. cluster-list

Answer: BE

NEW QUESTION 4
Which reserved AS number or range of numbers is used for backward compatibility between old BGP peers using 16-bit AS number and new BGP peers using 32-bit AS number?

A. AS 65001 to 65535
B. AS 65512 to 65535
C. AS 12345
D. AS 23456
E. AS 64001

Answer: D

Explanation:
http://www.cisco.com/en/US/prod/collateral/iosswrel/ps6537/ps6554/ps6599/4byte_asnios. pdf
New Reserved AS# AS_TRANS = AS #23456
2-byte placeholder for a 4-byte AS number
Used for backward compatibility between OLD and NEW BGP speakers

NEW QUESTION 5
Which high-availability mechanism is a detection protocol that is enabled at the interface and at the routing protocol levels?

A. NSF
B. SSO
C. NSR
D. BFD
E. SDR

Answer: D

Explanation:
http://www.cisco.com/en/US/docs/ios/12_0s/feature/guide/fs_bfd.html

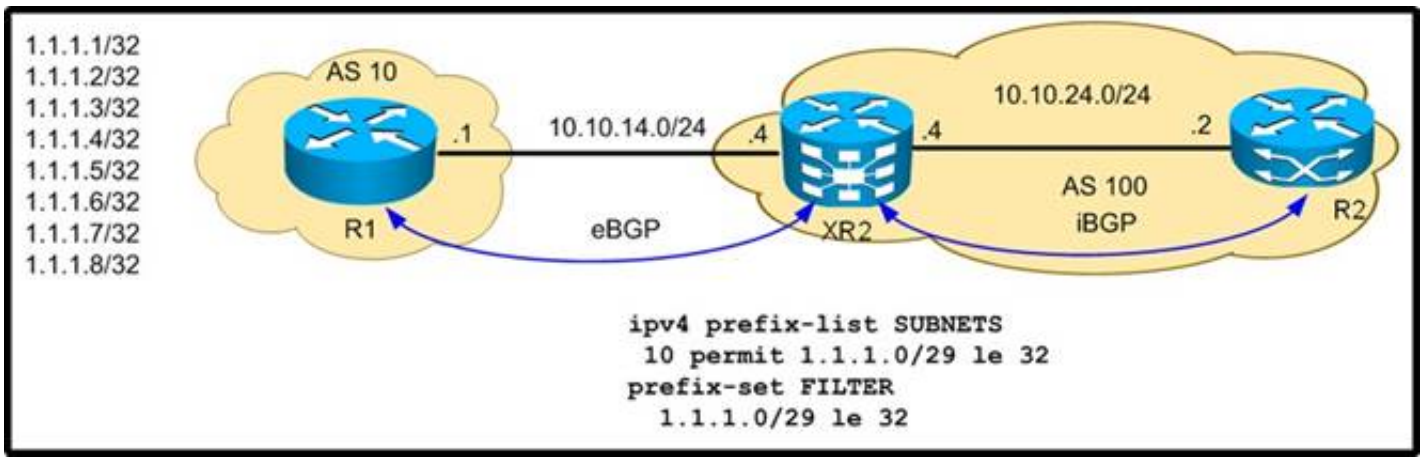
NEW QUESTION 6
When configuring BGP on Cisco IOS XR Software, which address-family is enabled by default?

A. IPv4 unicast
B. IPv6 unicast
C. VPNv4
D. IPv4 unicast and IPv6 unicast
E. IPv4 unicast and IPv6 unicast and VPNv4
F. No address-family is enabled by default.

Answer: F

Explanation:
http://www.cisco.com/en/US/docs/ios_xr_sw/iosxr_r3.8/routing/command/reference/rr38bg p.pdf
An address family must be explicitly configured in the router configuration mode for the address family to be active in BGP. Similarly, an address family must be configured under the neighbor for the BGP session to be established for that address family. An address family must be configured in router configuration mode before it can be configured under a neighbor.

NEW QUESTION 7
Refer to the exhibit.



R1 is advertising subnets 1.1.1.X/32 via eBGP. XR4 must accept only the first seven subnets in its BGP table. Which configuration must occur on XR2 to meet these parameters?

A. route-policy INBOUNDif destination in SUBNETS then pass endifrouter bgp 100 neighbor 10.10.14.1 address-family ipv4 unicast route-policy INBOUND in
B. route-policy INBOUNDif destination in FILTER then pass endifrouter bgp 100 neighbor 10.10.14.1 address-family ipv4 unicast route-policy INBOUND in
C. router bgp 100neighbor 10.10.14.1 address-family ipv4 unicast route-policy FILTER in
D. router bgp 100neighbor 10.10.14.1 address-family ipv4 unicast route-policy SUBNETS in

Answer: B

NEW QUESTION 8
Which of the following is a characteristic of dual-multihomed connectivity between an enterprise network and the service provider network or networks?

A. An enterprise network that is connected to two or more different service providers with two or more links per service provider and using BGP to exchange routing updates with the service providers.
B. Each service provider announces a default route on each of the links that connect to the customer with a different metric.
C. An enterprise network announces a default route to each service provider.
D. Load balancing can be achieved using the maximum-paths command.

Answer: A

NEW QUESTION 9
Which two mandatory tasks must an IS-IS NSF-capable router perform for RP switchover? (Choose two.)

A. Relearn the available IS-IS neighbors.
B. Reacquire the contents of the LSD.
C. Reset peering with the available IS-IS neighbors.
D. Keep the existing contents of the LSD.
E. Rediscover DIS for each link segment.

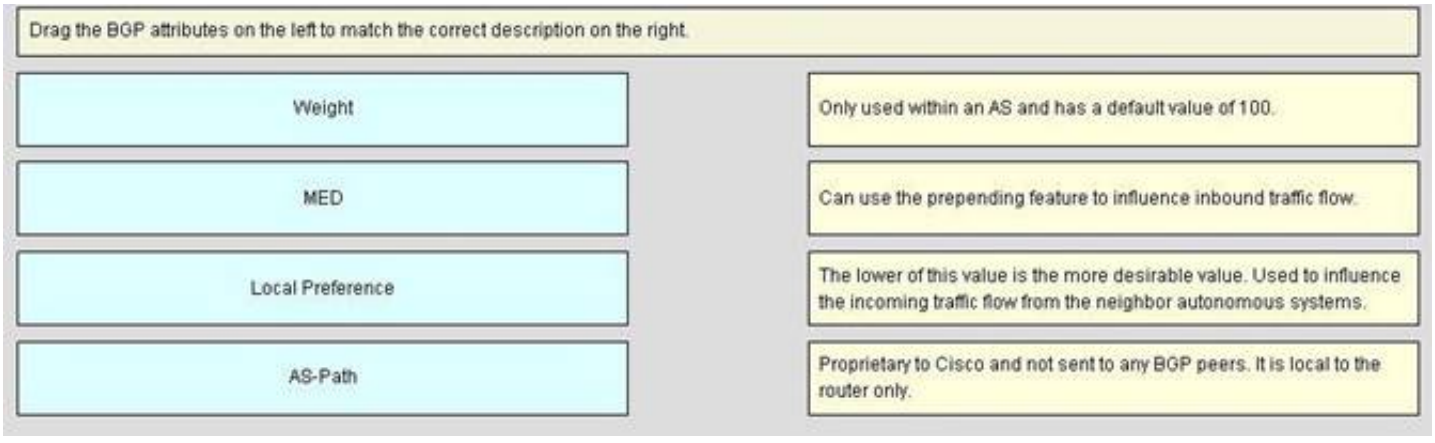
Answer: AB

NEW QUESTION 10
An engineer has two routers multihomed to the Internet via BGP. The first should be the primary path for all outbound traffic and the second should automatically become active in the event the primary goes offline. Which method to configure the routers is the most simple?

A. Set the local-preference to be higher on the primary router.
B. Set the local-preference to be lower on the primary router.
C. Set the MED to be higher on the primary router than the backup.
D. Set the primary router to have a higher weight than the backup.

Answer: A

NEW QUESTION 11
DRAG DROP



A. Mastered
B. Not Mastered

Answer: A

Explanation:
Only used within an AS and has a default value of 100 – Local Preference Can use the prepending feature to influence inbound traffic flow – AS_Path
The lower of this value is the more desirable value .Used to influence the incoming traffic flow from the neighbor autonomous systems. -- MED
Proprietary to cisco and no sent to any BGP peers. Its local to router only -Weight

NEW QUESTION 12
An engineer checks the logs in a PE with several customers and sees this output.
*Nov 3 21:44:54:219: %TCP-6-BADAUTH: No MD5 digest from 192.168.1.2(179) to 192.168.1.1(15926) (RST) tableid -0.
Which routing protocol is reporting the issue?

A. RIPng
B. BGP
C. OSPF
D. EIGRP

Answer: B

NEW QUESTION 13
Which statement best describes the function of a BGP af-group?

A. Use templates in different neighbors so it makes the BGP implementation easier.
B. Group different address family neighbors inside BGP.
C. Create a group of neighbors that can inherit address family configuration inside BGP.
D. Substitute the class maps inside BGP on Cisco IOS XR devices.

Answer: B

NEW QUESTION 14
Refer to the show command output in the exhibit.

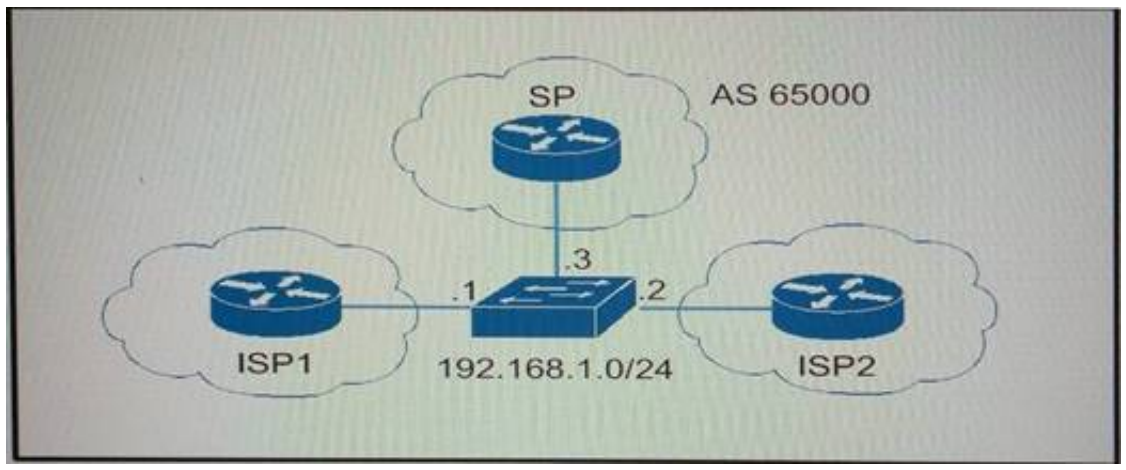
```
Router#show ip route
Codes: C - connected, S - static, I - IGRP, R - RIP, M - mobile, B - BGP
       D - EIGRP, EX - EIGRP external, O - OSPF, IA - OSPF inter area
       N1 - OSPF NSSA external type 1, N2 - OSPF NSSA external type 2
       E1 - OSPF external type 1, E2 - OSPF external type 2, E - EGP
       i - IS-IS, L1 - IS-IS level-1, L2 - IS-IS level-2, ia - IS-IS inter area
       * - candidate default, U - per-user static route, o - ODR

Gateway of last resort is not set

     4.0.0.0/24 is subnetted, 1 subnets
D       4.4.4.0 [90/409600] via 161.108.0.4, 00:49:24, Ethernet0/0
     5.0.0.0/24 is subnetted, 1 subnets
C       5.5.5.0 is directly connected, Loopback0
     162.108.0.0/16 is variably subnetted, 2 subnets, 2 masks
C       162.108.10.0/24 is directly connected, Serial1/0
C       162.108.4.0/22 is directly connected, Serial2/0
C    161.108.0.0/16 is directly connected, Ethernet0/0
Router#
Router#show ip bgp
BGP table version is 6, local router ID is 5.5.5.5
Status codes: s suppressed, d damped, h history, * valid, > best, i - internal,
              S Stale
Origin codes: i - IGP, e - EGP, ? - incomplete

   Network          Next Hop            Metric LocPrf Weight Path
* i1.1.1.0/24       132.108.10.1             0    100      0 1 i
* i131.108.0.0      132.108.10.1             0    100      0 1 i
*>i161.108.0.0      4.4.4.4                  0    100      0 i
Router#
```

For which reason will this router drop all traffic that is destined to the 1.1.1.0/24 network?

A. The 1.1.1.0/24 route is not synchronized.
B. The BGP next hop for reaching the 1.1.1.0/24 network is not reachable.
C. The metric of the 1.1.1.0/24 route is set to 0.
D. The weight of the 1.1.1.0/24 route is set to 0.
E. The 1.1.1.0/24 route is an incomplete route.
F. The IBGP split-horizon rule is preventing the router to use the IBGP route.

Answer: B

NEW QUESTION 15
Refer to the exhibit.



A service provider (AS65000) is interconnected to two upstream providers (ISP 1 neighbor IP 192.168.1.1 and ISP 2 neighbor IP 192.168.1.2) via a single link in a peering exchange. Which option can an engineer use to implement nonproprietary policies to make ISP 1 the preferred link for incoming and outgoing traffic from the local SP?

A. route-map outgoing permit 10set-as –path prepend 65000 65000 65000route-map incoming permit 10set local-preference 1000router bgp 65000neighbor 192.168.1.1 route- map incoming outneighbor 192.168.1.1 route-map outgoing in
B. route-map outgoing permit 10set metric 100route-map incoming permit 10set weight 100router bgp 65000neighbor 192.168.1.1 route-map incoming inneighbor 192.168.1.1 route-map outgoing out
C. route-map outgoing permit 10set-as –path prepend 65000 65000 65000route-map incoming permit 10set local-preference 1000router bgp 65000neighbor 192.168.1.1 route- map incoming inneighbor 192.168.1.2 route-map outgoing out
D. set-as –path prepend 65000 65000 65000route-map incoming permit 10set weight 100router bgp 65000neighbor 192.168.1.1 route-map incoming inneighbor 192.168.1.1 route-map outgoing out

Answer: A

NEW QUESTION 16
Which option is a characteristic of intermediate systems on multiarea IS-IS?

A. Level 2 contains routing information only for the local area.
B. Level 2 contains routing information only for stub areas.
C. Level 1 contains routing information only for the backbone area.
D. Level 1 contains routing information onlyfor the local area.

Answer: D

NEW QUESTION 17
Which three statements are correct regarding the OSPF operations? line (Choose three.)

Instructions

Enter the proper CLI commands and analysis the outputs on the Cisco routers to answer the multiple-choice questions.

From the network topology diagram, click on each of the router icon to gain access to the console of each router.

No console or enable passwords are required.

There are four multiple-choice questions with this task. Be sure to answer all four questions before selecting the Next button.

Not all the CLI commands or commands options are supported or required for this simulation.

For example, the show running-config and the ping commands are NOT supported in this simulation.

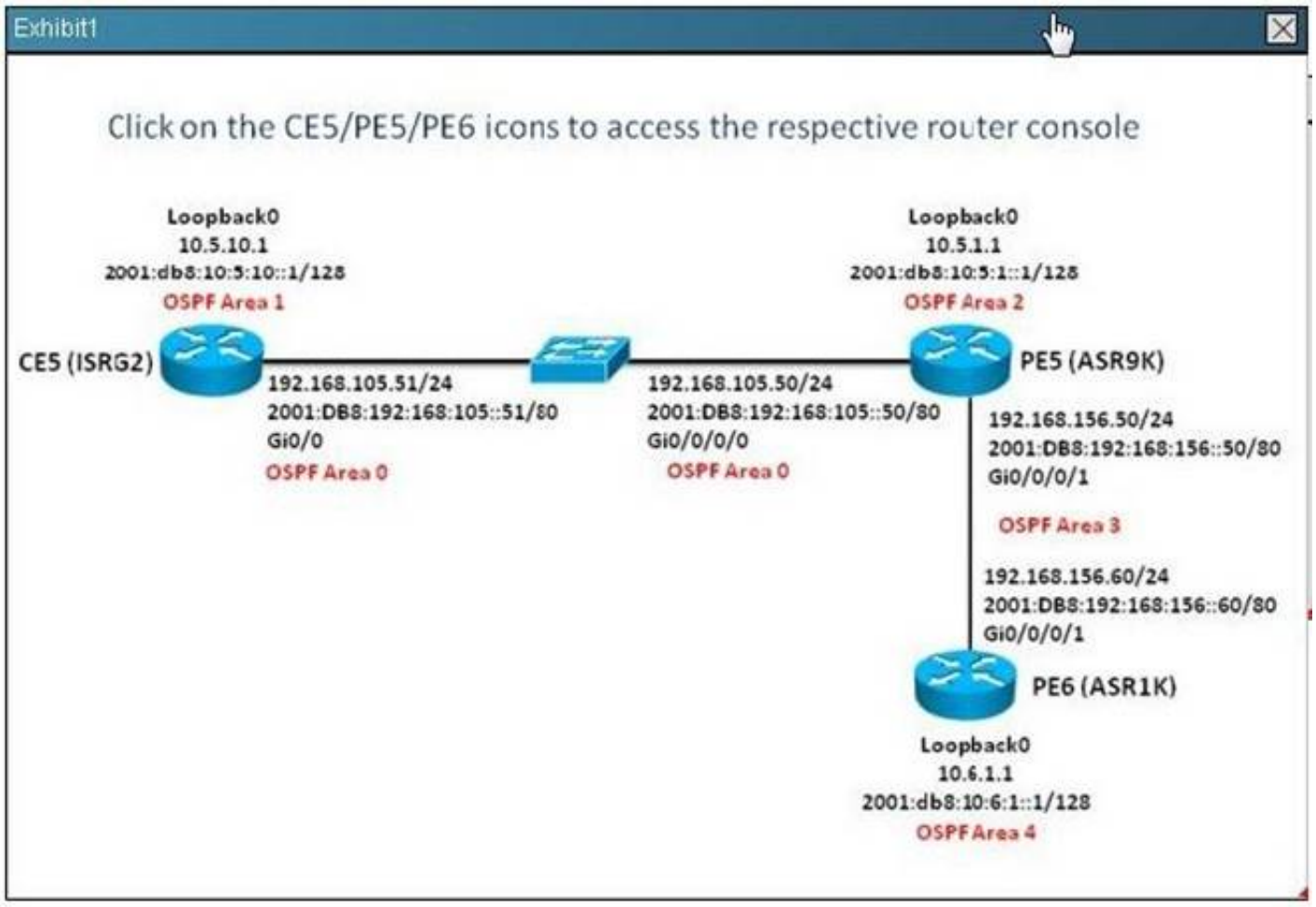
All the devices in this simulation have been pre-configured and you are not required to enter in any configurations.

Scenario

Referring to the multiarea IPv4 and IPv6 OSPF network topology diagram shown in the exhibit, use the proper CLI commands on the CE5, PE5 and PE6 routers and interpret the supported CLI commands outputs to answer the four multiple choice questions.

Note: The CE5 router is an IOS router, the PE5 router is an IOS-XR router, and the PE6 router is an IOS-XE router.

Exhibit1




CE5
CE5#


PE5
PE5#

A. PE5 OSPFv2 and OSPFv3 router id is 10.5.1.1
B. The OSPF virtual-link cost is 1
C. Area 3 is a transit area
D. Area 4 is using MD5 authentication
E. Area 1 IPv4 and IPv6 networks are not reachable from PE6

Answer: CDE

Explanation:
#show ip protocols
#show ip route ospf
#show ip ospf interfaces
#show ip ospf neighbors
#show ip ospf database
#show ip ospf border-routers
#show ip ospf
#show ip route
#show ip protocols

NEW QUESTION 18
What are two consequences of having constant link flaps, resulting in the OSPF neighbor adjacencies going up and down repeatedly? (Choose two.)

A. routes getting into the "Stuck In Active" state
B. constant flooding of LSAs
C. OSPF route dampening to occur
D. many SPF recalculations
E. routing loops may temporarily be introduced into the network

Answer: BD

NEW QUESTION 19
Which router(s) is/are IS-Type L1/L2 IS-IS router?

Instructions

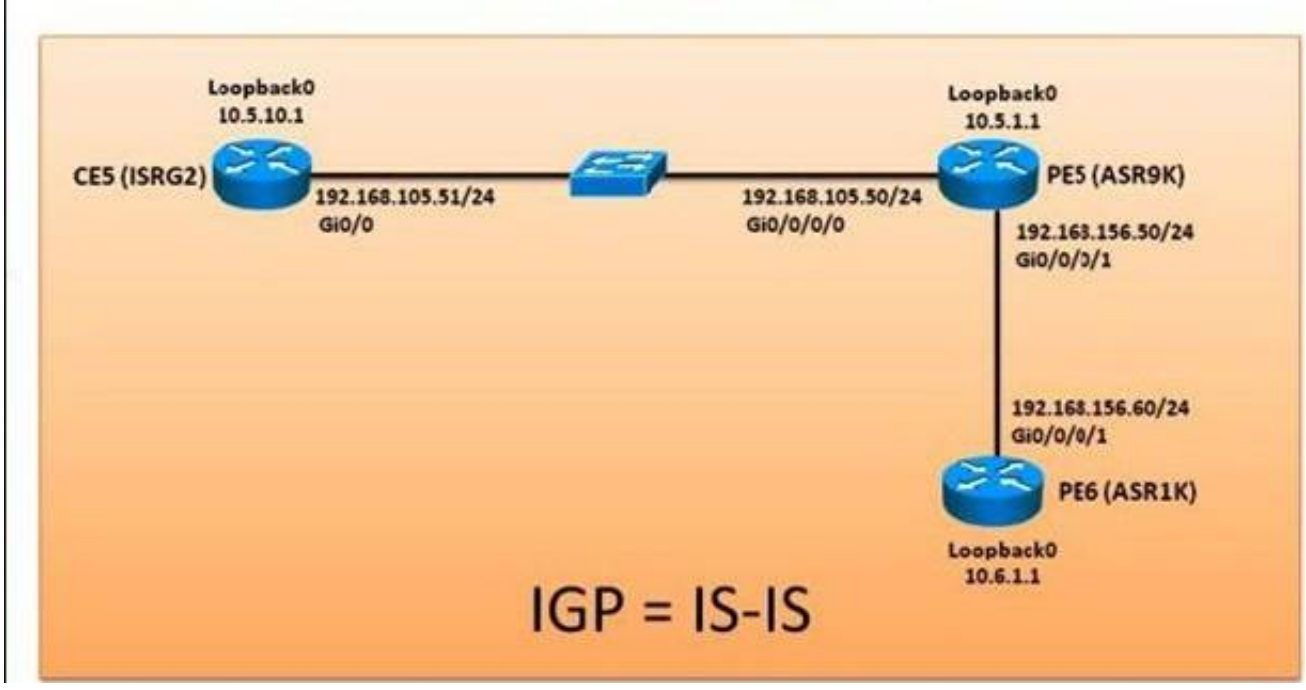
- Enter the proper CLI commands and analysis the outputs on the Cisco routers to answer the multiple-choice questions.
- From the network topology diagram, click on each of the router icon to gain access to the console of each router.
- No console or enable passwords are required.
- There are four multiple-choice questions with this task. Be sure to answer all four questions before selecting the Next button.
- Not all the CLI commands or commands options are supported or required for this simulation.
- For example, the show running-config and the ping commands are NOT supported in this simulation.
- All the devices in this simulation have been pre-configured and you are not required to enter in any configurations.

Scenario

Referring to the network topology diagram shown in the exhibit, use the proper CLI commands on the CE5, PE5 and PE6 routers
and interpret the supported CLI commands outputs to answer the four multiple choice questions.

Note: The CE5 router is an IOS router, the PE5 router is an IOS-XR router, and the PE6 router is an IOS-XE router.

Topology



CE5

CE5#

A. CE5 only
B. PE6 only
C. CE5 and PE6 only
D. PE5 and PE6 only
E. CE5, PE5 and PE6

Answer: D

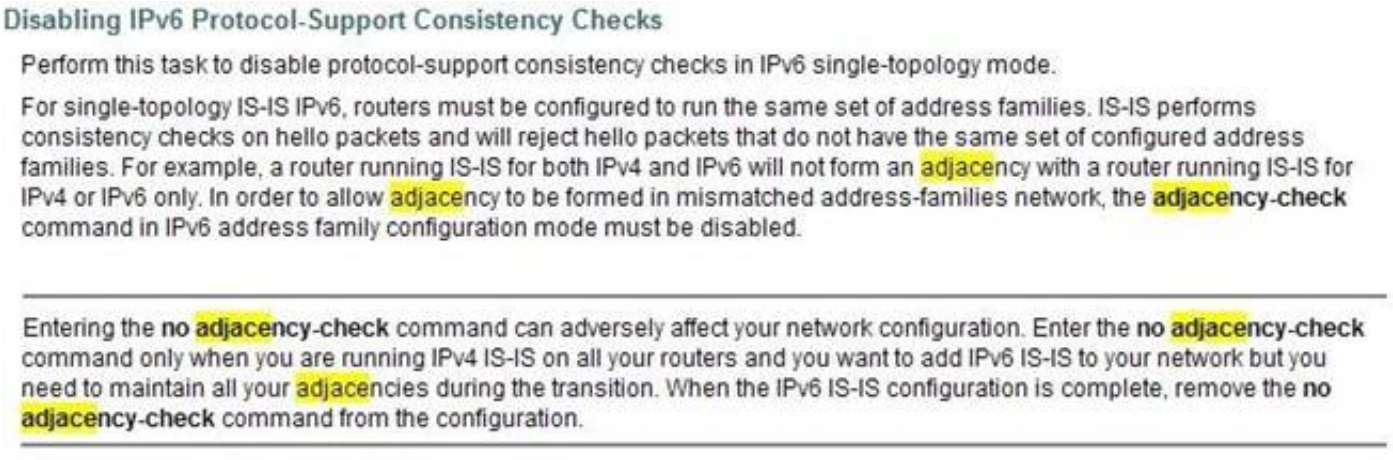
Explanation:
#show clns neighbor

NEW QUESTION 20
In which network environment is IS-IS adjacency check important?

A. in a multitopology environment where there are different instances of IS-IS running on the same router
B. in an IPv4/IPv6 environment and running single-topology IS-IS
C. when a level L1/L2 IS-IS router is neighboring with a Level 1 only or Level 2 only router
D. when IS-IS neighbors are in an NBMA environment like over Frame Relay
E. when IS-IS neighbors are in a broadcast environment like an Ethernet LAN

Answer: B

Explanation:


Disabling IPv6 Protocol-Support Consistency Checks

Perform this task to disable protocol-support consistency checks in IPv6 single-topology mode.

For single-topology IS-IS IPv6, routers must be configured to run the same set of address families. IS-IS performs consistency checks on hello packets and will reject hello packets that do not have the same set of configured address families. For example, a router running IS-IS for both IPv4 and IPv6 will not form an adjacency with a router running IS-IS for IPv4 or IPv6 only. In order to allow adjacency to be formed in mismatched address-families network, the **adjacency-check** command in IPv6 address family configuration mode must be disabled.

Entering the **no adjacency-check** command can adversely affect your network configuration. Enter the **no adjacency-check** command only when you are running IPv4 IS-IS on all your routers and you want to add IPv6 IS-IS to your network but you need to maintain all your adjacencies during the transition. When the IPv6 IS-IS configuration is complete, remove the **no adjacency-check** command from the configuration.

C:\Documents and Settings\user-nwz\Desktop\1.JPG

NEW QUESTION 21

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