300-510 Q&As

Implementing Cisco Service Provider Advanced Routing Solutions (SPRI)

Pass Cisco 300-510 Exam with 100% Guarantee

Free Download Real Questions & Answers **PDF** and **VCE** file from:

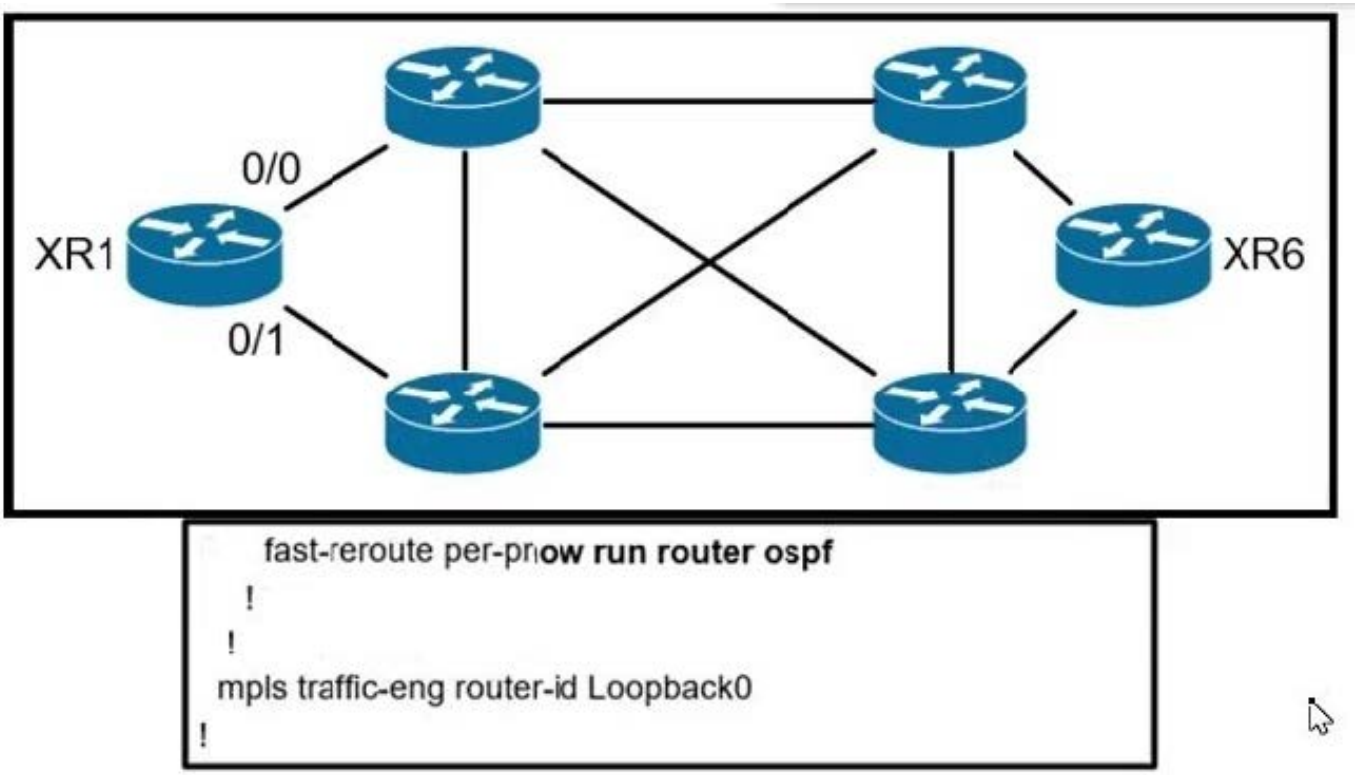
https://www.pass4itsure.com/300-510.html

100% Passing Guarantee
100% Money Back Assurance

Following Questions and Answers are all new published by Cisco Official Exam Center

QUESTION 1

Refer to the exhibits.



All links inside the network are configured at a default cost of one inside the fully converged OSPF domain. Given the configuration from XR1, which interface does traffic from XR1 that is destined to the loopback interface of XR6 select for the exiting interface?

A. Interface GigabitElhemet 0/0. The tie breaker of the node index priority is lower and trumps the path cost.

B. Interface GigabitEthernet 0/1. The tie breaker of the path cost being lower. The node index priority does not impact this selection process.

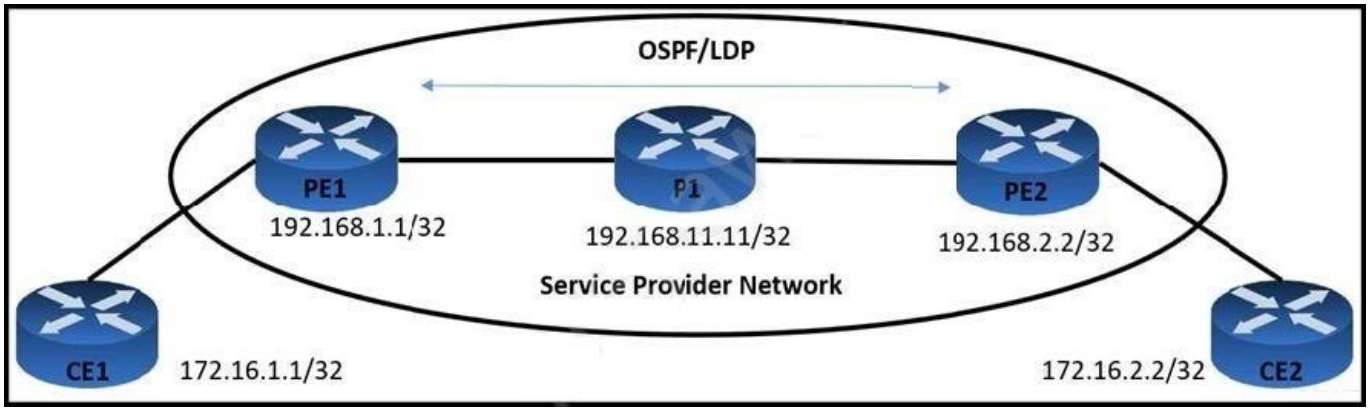
C. Interface GigabitEthernet 0/1. The tie breaker of the node index priority is lower and trumps the path cost.

D. Interface GigabitEthernet 0/0. The tier breaker of the path cost being lower. The node index priority does not impact this selection process.

Correct Answer: A

QUESTION 2

Refer to the exhibit.




```
PE1# show mpls forwarding-table
Local  Outgoing  Prefix           Bytes Label  Outgoing    Next  Hop
Label  Label       or Tunnel Id  Switched      interface
16     No Label    172.16.1.1/32     0         drop
17     No Label    192.168.12.12/32  0         drop
20     No Label    192.168.2.2/32    0         drop
21     No Label    10.1.212.0/24     0         drop
22     No Label    10.1.211.0/24     0         drop
23     No Label    192.168.11.11/32  0         drop
24     No Label    172.16.11.0/24    0         drop
25     No Label    172.16.14.0/24    0         drop

PE2#show ip route 192.168.1.1
Routing entry for 192.168.1.0/24
Known via "bgp 100", distance 200, metric 0
Tag 1, type internal
Last update from 192.168.1.12 20:10:38 ago
Routing Descriptor Blocks:
* 192.168.1.12, from 192.168.12.12, 20:10:38
ago
Route metric is 0, traffic share count is 1
AS Hops 5

PE1#show ip route 192.168.11.11
Routing entry for 192.168.11.11/32
Known via "ospf 100", distance 110, metric 2, type
intra area
Last update from 10.1.111.11 on Gi0/1 00:04:34 ago
Routing Descriptor Blocks:
* 10.1.111.11, from 192.168.11.11, 00:04:34 ago
via GugabitEthernet0/1
Route metric is 2, traffic share count is 1
```

VPN users that are connected to PE routers are facing network issues. Traffic that originates from CE1 drops before reaching CE2. An engineer finds no outgoing traffic statistics on PE1 and PE2 routers toward CE devices and finds that

the PE1 router is running the older software image. Which action must be implemented to resolve the issues?

A. Enable LDP protocol on PE1 and PE2 routers.

B. Advertise P1 router loopback on PE1 in OSPF.

C. Enable CEF-based forwarding on PE1 router.

D. Advertise PE2 router loopback on PE1 in OSPF.

Correct Answer: C

Reference: https://www.cisco.com/c/en/us/td/docs/ios-xml/ios/mp_basic/configuration/xe-3s/mp-basic-xe-3s-book/mp-mpls-cisco-rtrs.html

QUESTION 3

After changing the IP address on an IOS XR router, an engineer cannot ping the new address Which step did the engineer forget to complete?

A. commit the configuration

B. roll back the configuration

C. save the running configuration

D. merge the configuration

Correct Answer: A

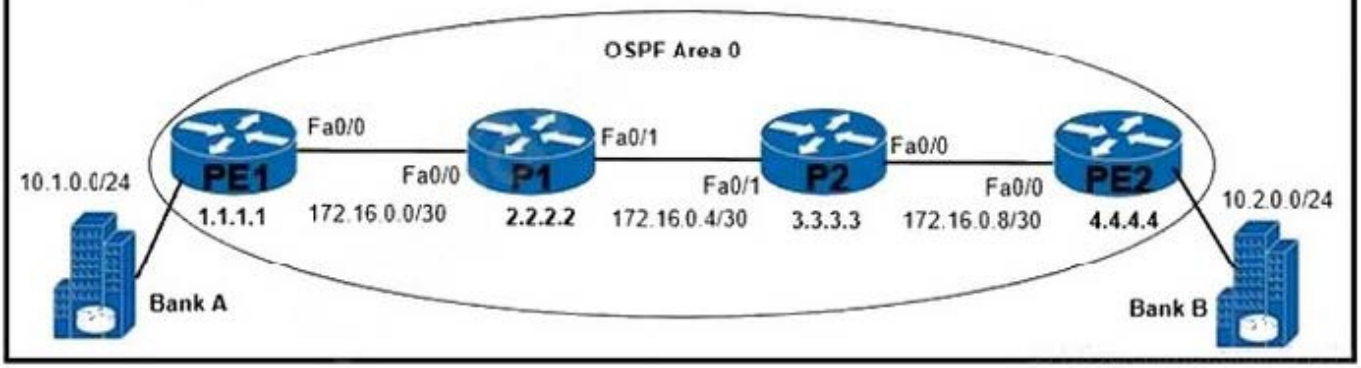
QUESTION 4

Refer to the exhibit.

```
 neighbor 4.4.4.4 update-source Loopback0
 no auto-summary

PE2#sh run | sec router bgp
router bgp 65000
 no synchronization
 bgp log-neighbor-changes
 network 10.2.0.0 mask 255.255.255.0
 neighbor 1.1.1.1 remote-as 65000
 neighbor 1.1.1.1 update-source Loopback0
 no auto-summary

 PE1#sh ip cef exact-route 10.1.0.1 10.2.0.1
 10.1.0.1 -> 10.2.0.1 : FastEthernet0/0 (next hop 172.16.0.2)
```



Network connectivity between bank A and bank B has been lost Users at bank A and bank B are able to successfully reach their directly connected PE routers.

All routers in OSPF area 0 are correctly advertising and learning routing updates.

Which action resolves the issue?

A. Enable next-hop-self under the iBGP peering configuration on routers PEI and PE2

B. Configure the P routers to redtstnbute BGP routes within OSPF area 0.

C. Configure router PI to advertise the IP prefix of PEI.

D. Configure MPLS with an end-to-end label-switched path on each router.

Correct Answer: D

QUESTION 5

A network operator working for a telecommunication company with an employee id: 4074:92:707 is planning to implement the Nonstop Forwarding (NSR) feature on the customer\\'s core network. After getting the configuration ready for NSR. on which router should the operator implement NSR changes?

A. on the CE router

B. on the ASBR router

C. on the ABR router

D. on the PE router

Correct Answer: D

Reference: https://www.cisco.com/en/US/technologies/tk869/tk769/technologies_white_paper0900aecd801dc5e2.html

QUESTION 6

For which reason do you deploy BGP confederations within a BGP transit backbone?

A. to support a larger number of eBGP peer sessions

B. to increase the number of routes that can be redistributed between the running IGP and BGP

C. to reduce the number of eBGP routes that must be shared between autonomous systems

D. to reduce the number of iBGP peering sessions

Correct Answer: D

QUESTION 7

CORRECT TEXT

Guidelines

This is a lab item in which tasks will be performed on virtual devices.

1.

Refer to the Tasks tab to view the tasks for this lab item.

2.

Refer to the Topology tab to access the device console(s) and perform the tasks.

3.

Console access is available for all required devices by clicking the device icon or using the tab(s) above the console window.

4.

All necessary preconfigurations have been applied.

5.

Do not change the enable password or hostname for any device.

6.

Save your configurations to NVRAM before moving to the next item.

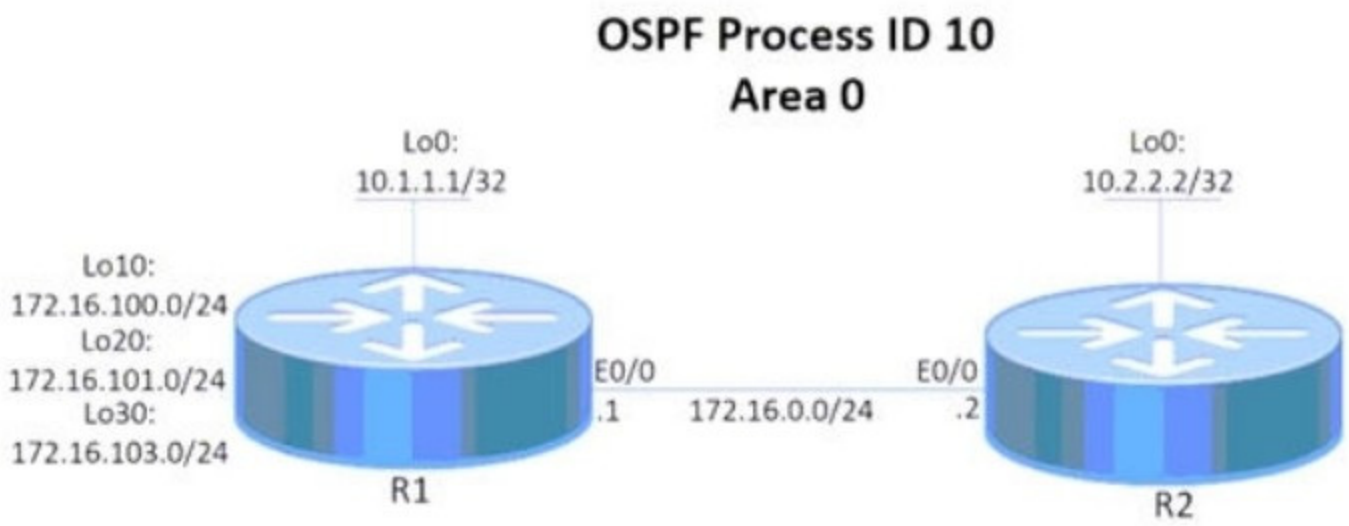
7.

Click Next at the bottom of the screen to submit this lab and move to the next question.

8.

When Next is clicked, the lab closes and cannot be reopened.

Topology



Tasks

Configure and verify an OSPF neighbor adjacency between R1 and R2 in OSPF area 0 according to the topology to achieve these goals:

1.

R1 pings the Loopback0 interface of R2. Use interface-level configuration to complete this task.

2.

R2 pings the Loopback0 interface of R1. Use interface-level configuration to complete this task.

3.

R2 receives a single summary route 172.16.100.0/22 for networks 172.16.100.0/24, 172.16.101.0/24, and 172.16.103.0/24.

A. Check the answer in the explanation

B. Placeholder

C. Placeholder

D. Placeholder

Correct Answer: A

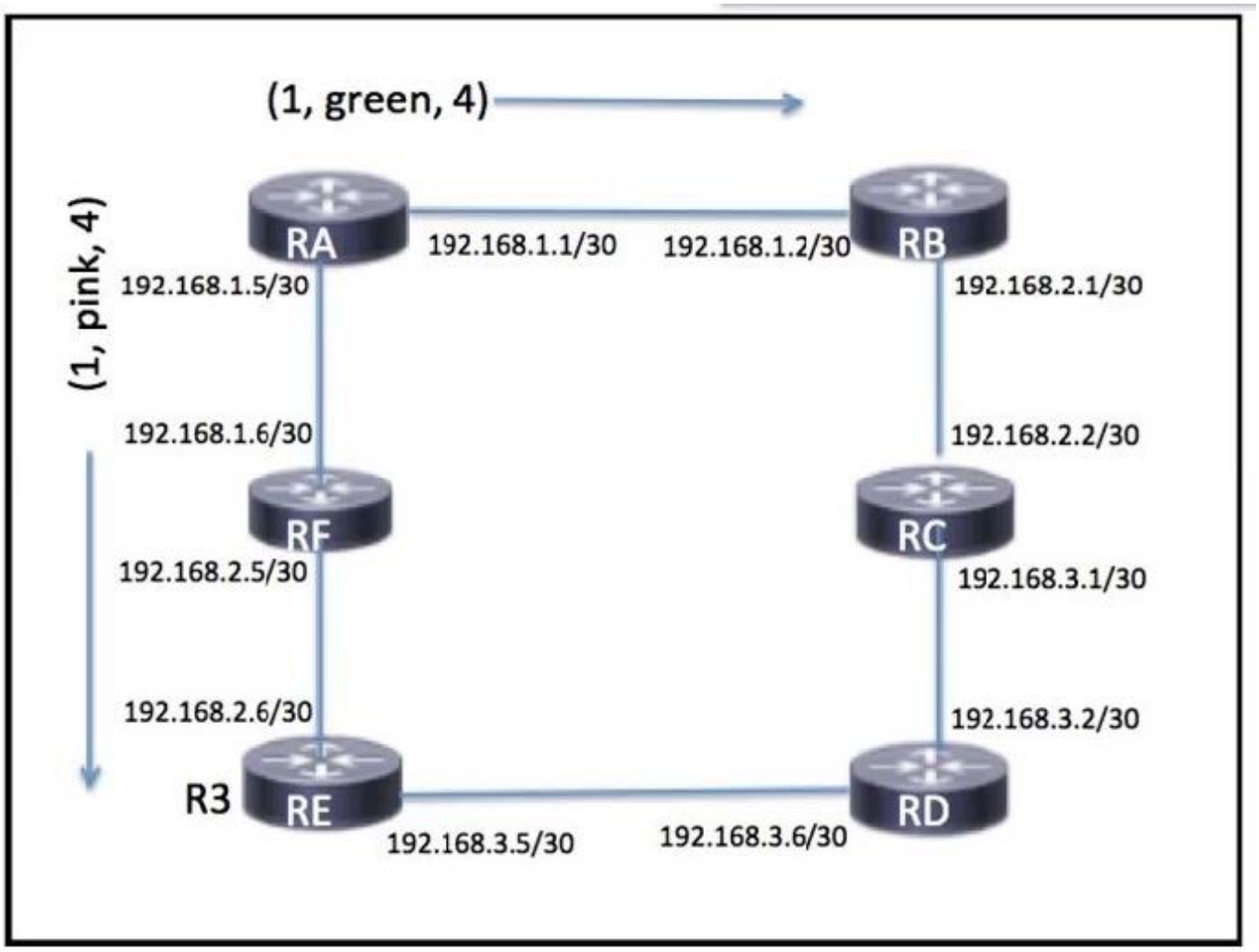
R1 R2

```
R2>
R2>
R2>en
R2#config t
Enter configuration commands, one per line.  End with CNTL/Z.
R2(config)#int lo
R2(config)#int lo0
R2(config-if)#ip ospf 10 area 0
R2(config-if)#^Z
R2#
R2#
R2#c
*Aug 26 11:44:48.122: %SYS-5-CONFIG_I: Configured from console by
 console
R2#copy run start
R2#copy run startup-config
Destination filename [startup-config]?
Building configuration...
[OK]
R2#
R2#sh ip route ospf
Codes: L - local, C - connected, S - static, R - RIP, M - mobile,
 B - BGP
       D - EIGRP, EX - EIGRP external, O - OSPF, IA - OSPF inter
area
       N1 - OSPF NSSA external type 1, N2 - OSPF NSSA external ty
pe 2
       E1 - OSPF external type 1, E2 - OSPF external type 2
       i - IS-IS, su - IS-IS summary, L1 - IS-IS level-1, L2 - IS
-IS level-2
       ia - IS-IS inter area, * - candidate default, U - per-user
 static route
       o - ODR, P - periodic downloaded static route, H - NHRP, l
 - LISP
       a - application route
       + - replicated route, % - next hop override, p - overrides
 from PfR

Gateway of last resort is not set
```

QUESTION 8

Refer to the exhibit.



The green policy is designed with low delay, and the pink policy is designed with low cost. What is the next hop for node A on its way to node D, with the objective of achieving a low delay?

A. 192.168.3.2

B. 192.168.1.6

C. 192.168.3.6

D. 192. 168.1.2

Correct Answer: D

QUESTION 9

Refer to the exhibit.

```
Cisco(config)# extcommunity-set opaque overlay-color
Cisco(config-ext)# 1 co-flag 01
Cisco(config-ext)# end-set
Cisco(config)#
Cisco(config)# route-policy color
Cisco(config-rpl)# if destination in (10.10.10.1/32) then
Cisco(config-rpl-if)# set extcommunity color overlay-color
Cisco(config-rpl-if)# endif
Cisco(config-rpl)# pass
Cisco(config-rpl)# end-policy
```

An engineer is troubleshooting an issue with traffic steering using the color-only automated steering mechanism. BGP is failing to automatically steer traffic into an SR policy with the given color of a route, regardless of the next hop.

The layer 2 configuration is correct, and the physical connection between the devices is working normally.

Whch additional command sequence must the engineer add to correct the issue?

A. Cisco(config)# segment-routingCisco(config-sr)# traffic-engCisco(config-sr-te)# policy P1Cisco(config-sr-te-policy)# color 1 end-point ipv4 0.0.0.0

B. Cisco(config)# segment-routing traffic-engCisco(config-sr-te)# policy P1Cisco(config-sr-te-policy)# color 1 end-point ipv4 1.1.1.1Cisco(config-sr-te-policy)# autoroute Cisco(config-sr-te-policy-autoroute)# include all

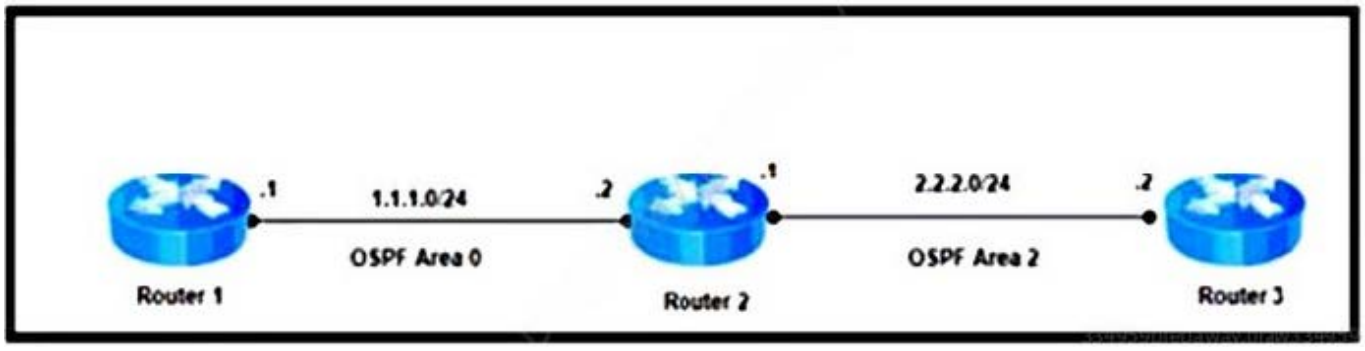
C. Cisco(config)# segment-routingCisco(config-sr)# traffic-engCisco(config-sr-te)# policy P1Cisco(config-sr-te-policy)# color 1 end ipv4 1.1.1.1Cisco(config-sr-te-policy)# autoroute include all

D. Cisco# configureCisco(config)# segment-routingCisco(config-sr)# traffic-engCisco(config-sr-te)# policy P1Cisco(config-sr-te-policy)# color 1 end-point

Correct Answer: A

QUESTION 10

Refer to the exhibit



A network engineer installed a new router (router 3) at the regional hub running MPLS services for scalability Router 3 is connected to the 10.44 4.0/24. 10.44 5.0/24. 10 44.6.0/24. and 10 44.7.0/24 subnets

The new router has been configured for OSPF area 2. and it is advertising the four connected networks.

The engineer noticed that the same networks are listed as interarea summary routes, and they are being flooded into each area on the area borders

Which action resolves the issue?

A. On router 3, configure an access list to filter the networks.

B. On router 2, configure a route map to filter the networks.

C. Under the OSPF configuration on router 3. add area 2 range 10.44.4.0 255.255.252.0.

D. Under the OSPF configuration on router 2, add area 2 range 10.44.4.0 255.255.252.0.

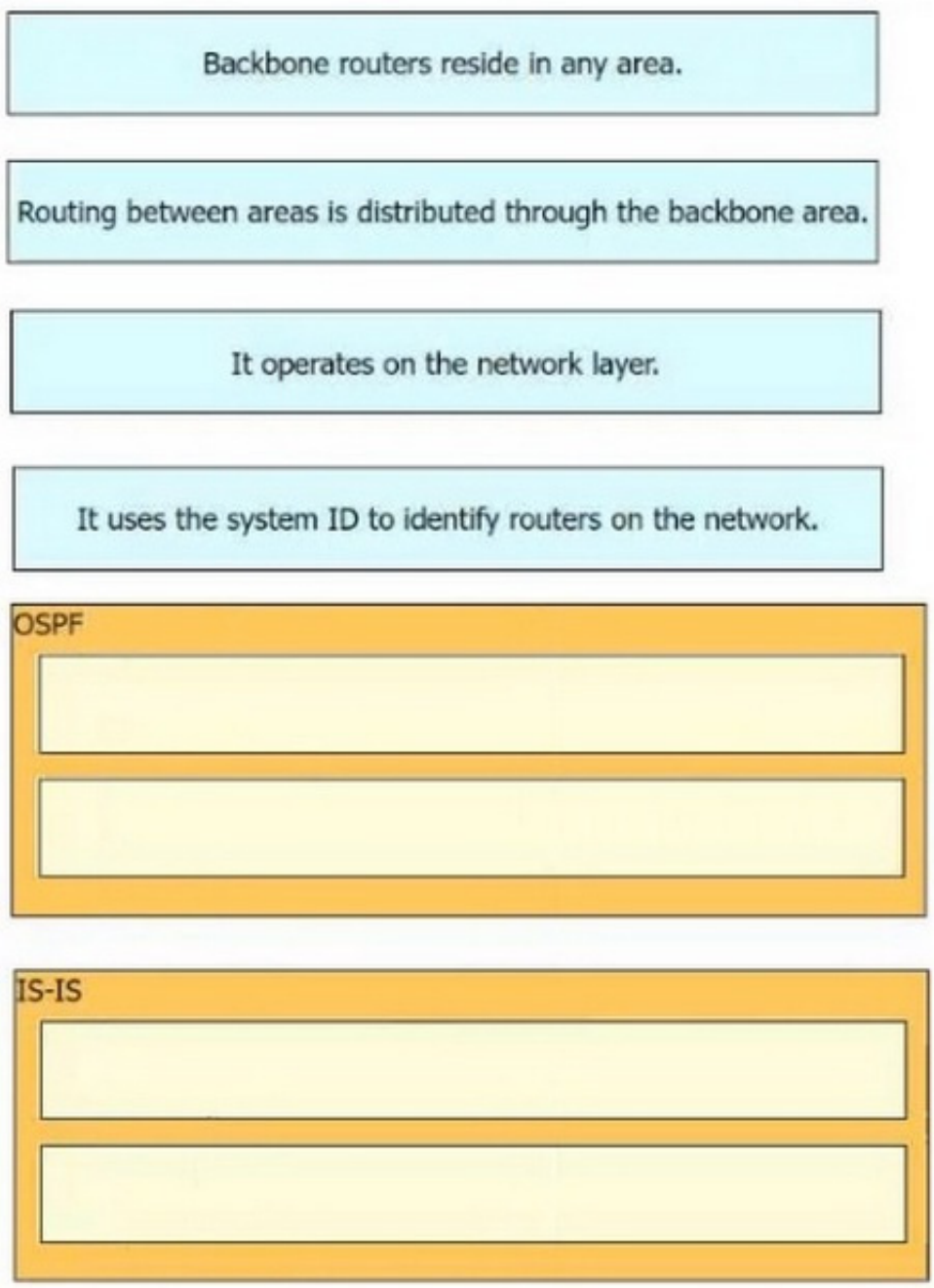
Correct Answer: D

QUESTION 11

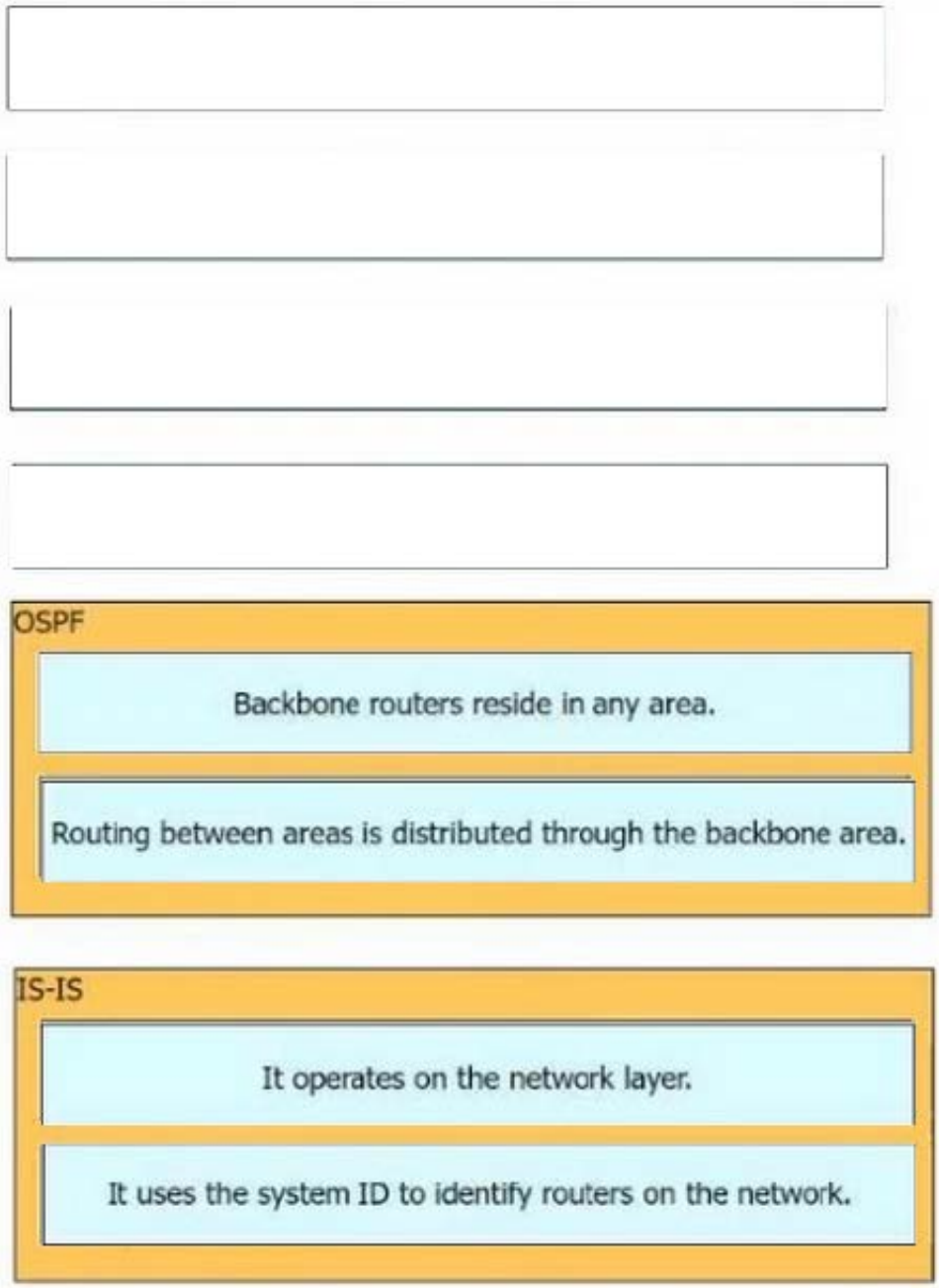
DRAG DROP

Drag and drop the characteristics from the left onto the corresponding routing protocols on the right.

Select and Place:



Correct Answer:



QUESTION 12

What is the characteristic of enabling segment routing for IGPs?

A. Segment routing must first be enabled under the routing process and then globally.

B. Segment routing must first be enabled globally and then under the routing process.

C. Segment routing must be enabled only globally.

D. Segment routing must be enabled only under the routing process.

Correct Answer: B

QUESTION 13

What is the purpose of ACL type prefix set entries in RPL prefix sets?

A. They hold IPv4 or IPv6 prefixes that do not match specifications.

B. They hold IPv4 or IPv6 prefix match specifications.

C. They hold IPv6 prefix match specifications.

D. They hold IPv4 prefixes that do not match specifications.

Correct Answer: B

QUESTION 14

Which technique should be permitted on ASA Firewall to allow MSDP Peering?

A. PIMv2 messages carrying MSDP messages

B. Multicast BGP carrying MSDP messages

C. UDP socket(s) carrying MSDP messages

D. TCP socket(s) carrying MSDP messages

Correct Answer: D

QUESTION 15

Which feature is used in multicast routing to prevent loops?

A. STP

B. inverse ARP

C. RPF

D. split horizon

Correct Answer: C