

➤ **Vendor: Cisco**

➤ **Exam Code: 300-510**

➤ **Exam Name: Implementing Cisco Service Provider Advanced Routing Solutions (SPRI)**

➤ **New Updated Questions from [Braindump2go](#) (Updated in [May/2021](#))**

[Visit Braindump2go and Download Full Version 300-510 Exam Dumps](#)

QUESTION 63

Which two statements about route reflectors are true? (Choose two.)

- A. Routes received from nonclient peers are reflected to route reflector clients as well as nonclient peers.
- B. Routes received from nonclient peers are reflected to route reflector cluster as well as OSPF peers.
- C. If a router received an iBGP route with the originator-ID attribute set to its own router ID, the route is discarded.
- D. Routes received from a route reflector client is reflected to other clients and nonclient peers.
- E. If a route reflector receives a route with a cluster-list attribute containing a different cluster ID, the route is discarded.

Answer: CD

Explanation:

<http://www.networkers-online.com/blog/2009/02/bgp-route-reflector-basics/>

QUESTION 64

Which two statements about mapping multicast IP addresses to MAC addresses are true? (Choose two.)

- A. All mapped multicast MAC addresses begin with 0x0100.5E
- B. The router performs the mapping before it hands the packet off to a switch
- C. All multicast MAC addresses end with 0x0100.5E
- D. The mapping process may generate overlapping addresses, which can cause receivers to receive unwanted packets
- E. All destination MAC addresses begin with an octet of binary 1s

Answer: AD

QUESTION 65

You have configured routing policies on a Cisco IOS XR device with routing policy language. Which two statements about the routing policies are true? (Choose two.)

- A. The routing policies affect BGP-related routes only.
- B. If you make edits to an existing routing policy without pasting the full policy into the CLI, the previous policy is overwritten.
- C. You can change an existing routing policy by editing individual statements.
- D. The routing policies are implemented in a sequential manner.
- E. The routing policies are implemented using route maps.

[300-510 Exam Dumps](#) **[300-510 Exam Questions](#) **[300-510 PDF Dumps](#) **[300-510 VCE Dumps](#)******

<https://www.braindump2go.com/300-510.html>

Answer: CD

QUESTION 66

Refer to the exhibit. Which task must you perform on interface g1/0/0 to complete the SSM implementation?

```
ip pim ssm
interface g1/0/0
ip pim sparse-mode
```

- A. configure OSPFv3
- B. enable CDP
- C. disable IGMP
- D. configure IGMPv3

Answer: D

Explanation:

https://www.cisco.com/c/en/us/td/docs/ios-xml/ios/ipmulti_pim/configuration/xr-16/imc-pim-xr-16-book/imc-ssm.html

QUESTION 67

Refer to the exhibit. Which statement about this configuration is true?

```
Router 1:

router bgp 65530
 address-family ipv4 unicast
  bgp additional-paths select all
 neighbor 192.168.1.1 additional-paths send
 neighbor 192.168.1.1 advertise additional-paths all
```

- A. Router 1 sends and receives multiple best paths from neighbor 192.168.1.1
- B. Router 1 sends up to two paths to neighbor 192.168.1.1 for all routes
- C. Router 1 receives up to two paths from neighbor 192.168.1.1 for all routes in the same AS
- D. Router 1 receives only the best path from neighbor 192.168.1.1

Answer: A

QUESTION 68

Drag and Drop Question

Compare different features between OSPFv2 and OSPFv3.

Drag and drop the descriptions of OSPF from the left onto the correct OSPF versions on the right.

- introduced IPv6 support
- introduced MD5 authentication
- process network information on a per-link basis
- processes network information on a per-subnet basis
- uses a locally-significant instance ID

OSPFv3

OSPFv2

Answer:

OSPFv3

introduced IPv6 support

process network information on a per-link basis

uses a locally-significant instance ID

OSPFv2

introduced MD5 authentication

processes network information on a per-subnet basis

QUESTION 69

Drag and Drop Question

An engineer is troubleshooting end-to-end customer traffic across an MPLS VPN service provider network.

Which tasks should the engineer use to solve the routing issues?

Drag and drop the table types from the left onto the most useful troubleshooting tasks/router types on the right. (Not all options are used.)

LFIB	on the CE router to check for routing errors
LIB	on the P router to see LDP functionality
RIB	on PE and P router to verify expected forwarding
FIB	on VRF of the PE-CE connection
adjacency table	

Answer:

	RIB
	LIB
	LFIB
FIB	adjacency table

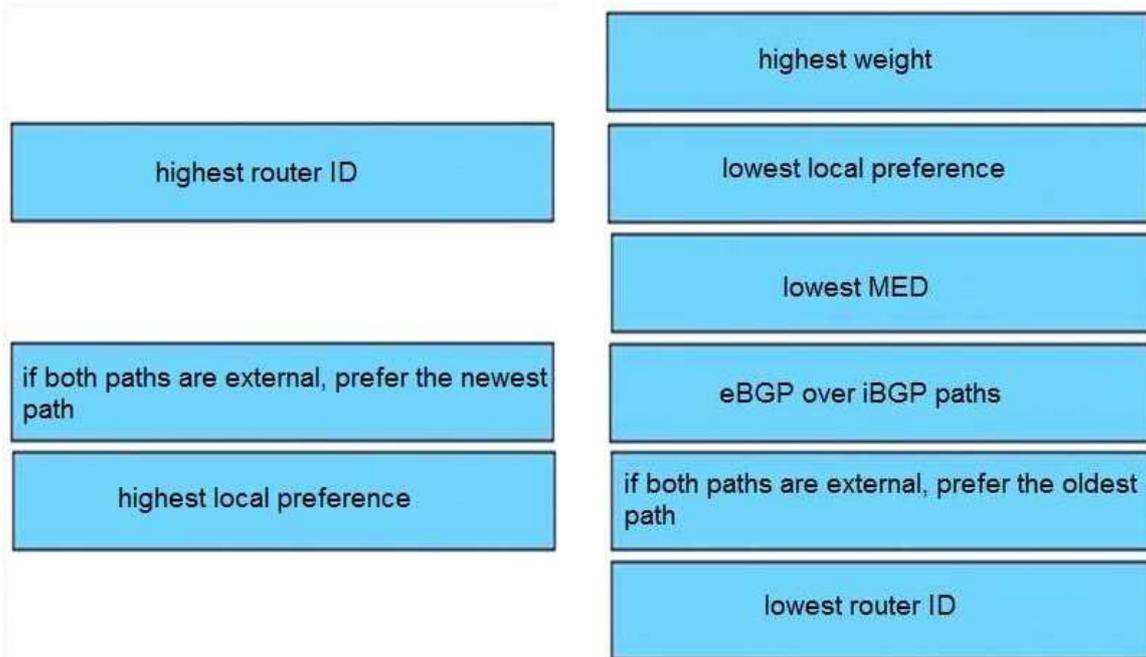
QUESTION 70

Drag and Drop Question

Drag and drop the attributes for the BGP route selection on the left into the correct order on the right. Not all options are used.

lowest router ID	Step 1
highest router ID	Step 2
lowest local preference	Step 3
if both paths are external, prefer the newest path	Step 4
highest local preference	Step 5
highest weight	Step 6
eBGP over iBGP paths	
if both paths are external, prefer the oldest path	
lowest MED	

Answer:



Explanation:

<https://www.cisco.com/c/en/us/support/docs/ip/border-gateway-protocol-bgp/13753-25.html>

QUESTION 71

An SP core is running PIM on the network. Multicast groups in this network are in the 232.0.0.0/8 range. Which command enables multicast routing operations without using an RP?

- A. ip pim autorp
- B. ip pim ssm default
- C. ip pim bidir-enable
- D. ip pim register-source

Answer: B

QUESTION 72

Which two BGP mechanisms are used to prevent routing loops when using a design with redundant route reflectors? (Choose two.)

- A. Cluster-list
- B. AS-Path
- C. Originator ID
- D. Community
- E. Origin

Answer: AC

Explanation:

As the iBGP learned routes are reflected, routing information may loop. The route reflector model has the following mechanisms to avoid routing loops:

Originator ID is an optional, nontransitive BGP attribute. It is a 4-byte attributed created by a route reflector.

The attribute carries the router ID of the originator of the route in the local autonomous system. Therefore, if a misconfiguration causes routing information to come back to the originator, the information is ignored.

Cluster-list is an optional, nontransitive BGP attribute. It is a sequence of cluster IDs that the route has passed. When a route reflector reflects a route from its clients to nonclient peers, and vice versa, it appends the local cluster ID to the cluster-list. If the cluster-list is empty, a new cluster-list is created. Using this attribute, a route reflector can identify if routing information is looped back to the same cluster due to misconfiguration. If the local cluster ID is found in the cluster-list, the advertisement is ignored.

QUESTION 73

Which types of multicast distribution tree can PIM-SM use?

- A. Only shared tree rooted at the source
- B. Only shared tree rooted at the RP
- C. Only shortest path tree rooted at the RP
- D. Shared tree rooted at the source and shortest path tree switchover
- E. Shared tree rooted at the RP and shortest path tree switchover
- F. Shared tree rooted at the first-hop router and shortest path tree rooted at the RP

Answer: E

QUESTION 74

Which multicast routing protocol is most optimal for supporting many-to-many multicast applications?

- A. PIM-SM
- B. PIM-BIDIR
- C. MP-BGP
- D. DVMRP
- E. MSDP

Answer: B

Explanation:

PIM-Bidirectional Operations

PIM Bidirectional (BIDIR) has one shared tree from sources to RP and from RP to receivers.

This is unlike the PIM-SM, which is unidirectional by nature with multiple source trees - one per (S, G) or a shared tree from receiver to RP and multiple SG trees from RP to sources.

Benefits of PIM BIDIR are as follows:

As many sources for the same group use one and only state (*, G), only minimal states are required in each router.

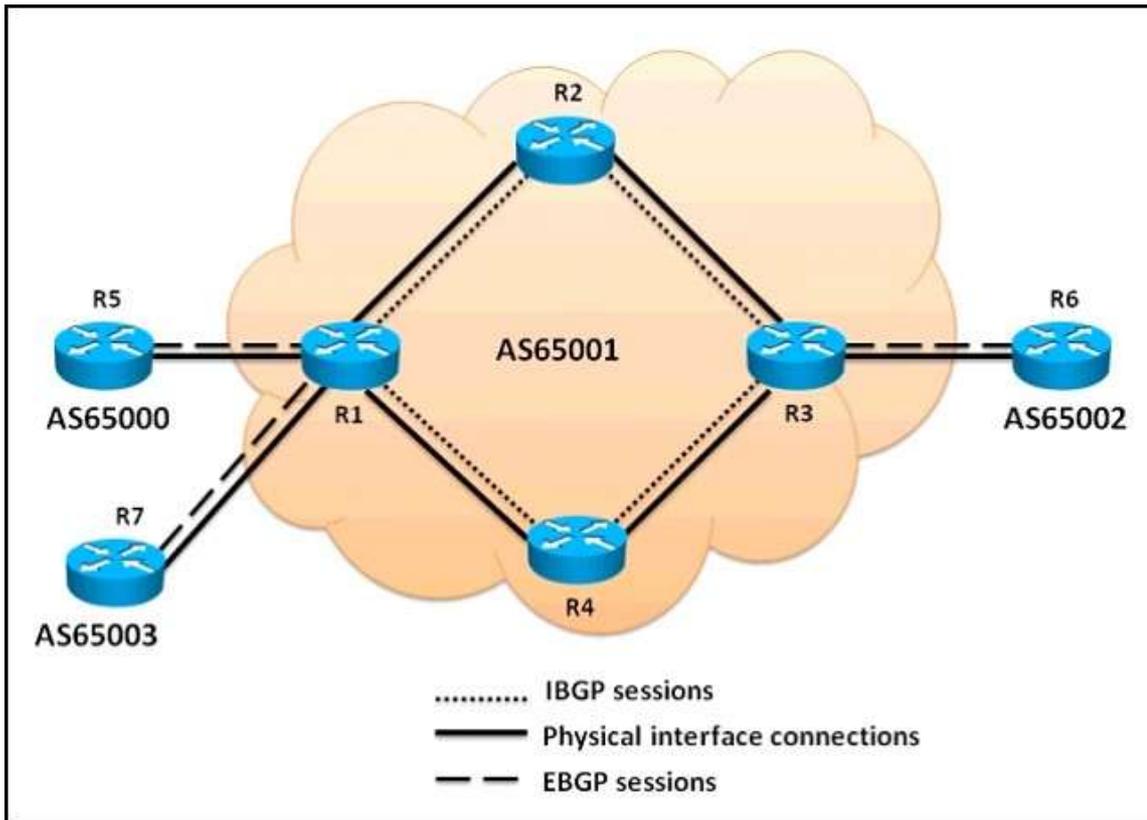
No data triggered events.

Rendezvous Point (RP) router not required.

The RP address only needs to be a routable address and need not exist on a physical device.

QUESTION 75

Referring to the topology diagram show in the exhibit, which three statements are correct regarding the BGP routing updates? (Choose three.)



- A. The EBGP routing updates received by R1 from R5 will be propagated to the R2, R4, and R7 routers
- B. The EBGP routing updates received by R3 from R6 will be propagated to the R2 and R4 routers
- C. The EBGP routing updates received by R1 from R5 will be propagated to the R2 and R4 routers
- D. The IBGP routing updates received by R3 from R2 will be propagated to the R6 router
- E. The IBGP routing updates received by R2 from R1 will be propagated to the R3 router
- F. The IBGP routing updates received by R1 from R4 will be propagated to the R5, R7, and R2 routers

Answer: ABD

QUESTION 76

What is determined by running the same hash algorithm on all PIMv2 routers?

- A. The SPT from the RP to the multicast source
- B. The SPT from the last hop router to the multicast source
- C. Auto RP election
- D. Which BSR to use for a particular multicast group
- E. Which RP to use from a set of candidate RPs in the RP set

Answer: E

QUESTION 77

What are two characteristics of BGP confederations? (Choose two.)

- A. All routers within the BGP confederation must support BGP confederations.

- B. The member AS numbers used within the confederation are visible from outside the confederation.
- C. An Intra-Confederation EBGP session behaves like an EBGP session when propagating routing updates.
- D. Intra-Confederation EBGP neighbors must be directly connected or ebgp-multihop must be configured.

Answer: AD

QUESTION 78

What is a key benefit of BGP dynamic update peer groups?

- A. Routing updates to the same destination are grouped to increase BGP efficiency.
- B. Newly configured BGP neighbors have peer group template configurations dynamically applied.
- C. Dynamic update groups use iBGP neighbor information to automatically calculate route reflector cluster configurations.
- D. Neighbors in a peer group are no longer required to share the same outbound routing policies.
- E. BGP configurations are automatically optimized by routers which dynamically create BGP peer groups.

Answer: D

QUESTION 79

Which two of the following are true regarding the BGP Prefix-Based outbound route filtering feature? (Choose two.)

- A. IP multicast routes are not supported.
- B. Outbound route filtering is configured only on a per-address family basis.
- C. Outbound route filtering can be configured for either iBGP or eBGP sessions.
- D. The outbound route filter can be defined in a Prefix list, Distribute list or Access lists.
- E. Outbound route filtering is more effective when a distance vector IGP is used.

Answer: AB

QUESTION 80

The core routers within a transit AS are running both iBGP and IGP. The edge routers within the transit AS are using the next-hop-self option to establish the iBGP sessions. What can be implemented to improve the routing performance to all external prefixes?

- A. enable route redistribution from BGP into IGP
- B. disable BGP synchronization on all the core routers
- C. enable CEF on all the core and edge routers
- D. enable route redistribution from IGP into BGP
- E. use route reflectors within the core

Answer: C

QUESTION 81

After an engineer configures BGP in R1, it starts receiving this message

```
*Jun 29 13:30:50.122: %BGP-5-ADJCHANGE: neighbor 192.168.10.1 Down User reset
Jun 29 13:30:52.341: %BGP-3-NOTIFICATION: sent to neighbor 192.168.10.1 2/6
(unacceptable hold time) 0 bytes
```

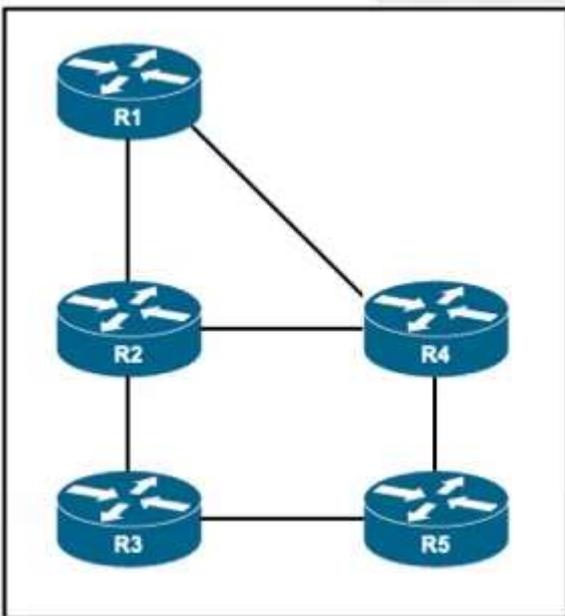
Which action makes the peering come back up again?

- A. Make a soft reset to the peer.
- B. Set up a minimum hold-down timer higher.
- C. Set up a hello timer higher.
- D. Set up a hold-down timer higher.

Answer: B

QUESTION 82

Refer to the exhibit. An engineer has configured all routers in the environment to run IS-IS Level 1 and Level 2 routing. The engineer wants traffic from R1 to R5 to pass via R2, but IS-IS routing has calculated the best path via R4. Which action corrects the problem?



- A. Configure routers R1, R4, and R5 for Level 2 routing only.
- B. Set the link metric for the link from router R1 to router R4 to 30 or more.
- C. Set the link metric on R2 for the links from router R2 to routers R3 and R4 to 30 or more.
- D. Configure routers R1, R2, and R5 for Level 1 routing only.

Answer: B

QUESTION 83

Refer to the exhibit. Routers within the cluster are not receiving the desired prefixes. What must be done to fix the issue?

```
Router(config-router)#no bgp client-to-client reflection intra-cluster cluster-id 192.168.1.1
```

- A. Clients in that cluster must have full mesh connectivity between eBGP peers.
- B. No client-to-client must be disabled.
- C. Clients in that cluster must have full mesh connectivity between iBGP peers.
- D. No client-to-client reflection must be enabled.

Answer: C