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Vendor:Cisco

Exam Code:300-510

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

Version:Demo

QUESTION 1

Refer to the exhibit. Which LSA type is indicated by this router output?

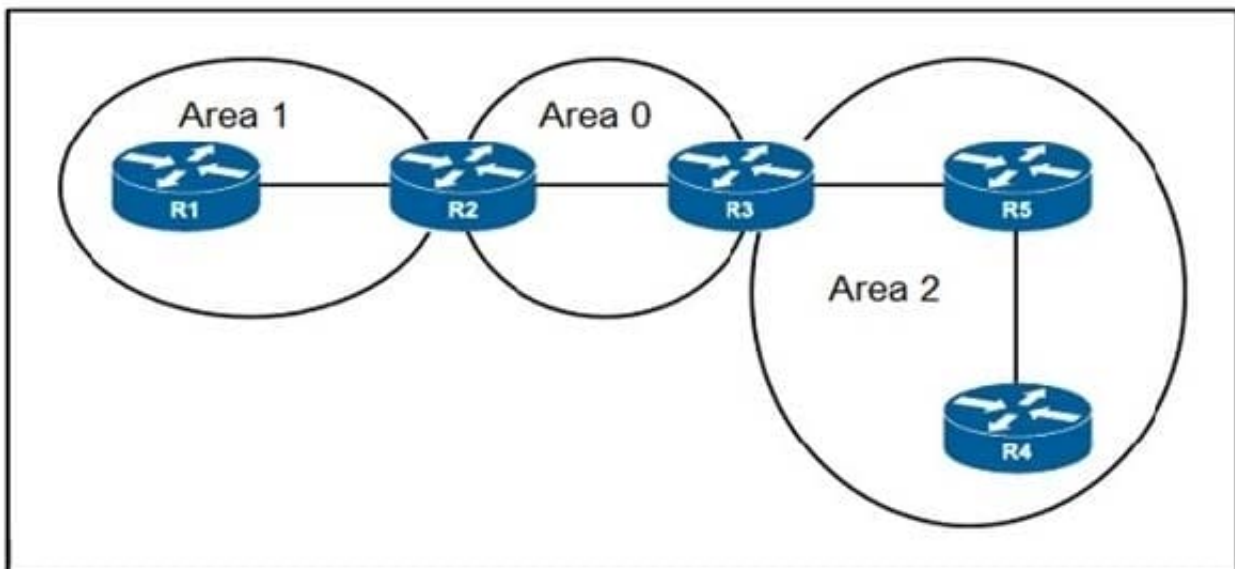
```
OSPF Router with ID (192.168.1.1) (Process ID 1)
Router Link States (Area 1234)
LS age: 691
Options: (No TOS-capability, DC)
LS Type: Router Links
Link State ID: 192.168.1.1
```

- A. type 3 LSA
- B. type 4 LSA
- C. type 1 LSA
- D. type 2 LSA

Correct Answer: C

QUESTION 2

Refer to the exhibit.



A network engineer applied configuration on R5 to summarize all OSPF routes, but R4 is still receiving specific routes from R5. The engineer has confirmed that both R5 and R4 routers are configured with correct summarization

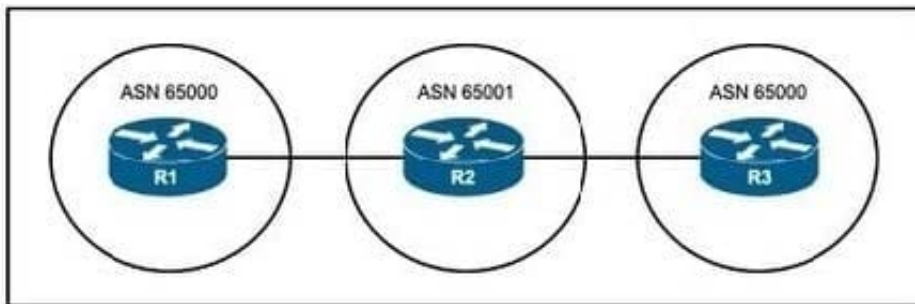
configuration, but R5 is not sending the summary routes. What action must the engineer take to fix the problem?

- A. Remove summarization configuration on R5 and configure it on R4
- B. Clear link-state database on both R4 and R5 routers for summarization to work
- C. Configure a sham link between R4 and R5 to support summarization within Area 2
- D. Move R4 and R5 in separate areas as now they maintain the same link-state database

Correct Answer: D

QUESTION 3

Refer to the exhibit.



An engineer is troubleshooting an issue with this network and notices that prefixes from R3 are missing on the R1 routing table. Due to repeated ASN when the 10.0.0.0/8 prefix from R3 arrives at R1, BGP automatically rejects it. There is no prefix-list on R1 which blocks the traffic from R3. What should the engineer do to fix the problem so that BGP allows that prefix on R1?

- A. Configure R2 as a route reflector client of R1.
- B. Configure the allow-as-in command on R1.
- C. Configure the next-hop-self command on R2.
- D. Configure identical confederation ASNs on R1 and R2.

Correct Answer: B

QUESTION 4

Refer to the exhibit.



```

R1# show ip ospf interface serial1/0
(output limited)
Serial1/0 is up, line protocol is up
Internet Address 172.16.1.0/32, Area 0
Process ID 1, Router ID 1.1.1.1, Network Type BROADCAST, Cost: 64
Transmit Delay is 1 sec, State DR, Priority 0
Designated Router (ID) 172.16.1.0, Interface address 172.16.1.0
  
```

While configuring router 2 with all the default values, a network engineer cannot see any route received in router 1. How should the engineer solve the issue?

- A. Set up a priority different than 0 in the interface.
- B. Modify the router ID to be the interface IP on the serial.
- C. Modify the IP address or mask of the interface to a valid one.
- D. Set the network type in S1/0 to point-to-point.

Correct Answer: C

QUESTION 5

Refer to the exhibit.

```

Router 1:
router bgp 65515
address-family ipv4 unicast
  bgp additional-paths receive
  bgp additional-paths select group-best
  neighbor 192.168.1.1 activate
  neighbor 192.168.1.1 additional-paths send receive
  neighbor 192.168.1.1 advertise additional-paths group-best
  
```

An engineer working for a private telecommunication company with an employee id: 1234:09:567 implemented this configuration on Router1, what is the effect of it?

- A. Router 1 receives only one best path from neighbor 192.168.1.1
- B. Router 1 sends only one best path to neighbor 192.168.1.1
- C. Router 1 sends up to three paths to neighbor 192.168.1.1 for all routes
- D. Router 1 sends and receives multiple best paths from neighbor 192.168.1.1

Correct Answer: D

QUESTION 6

Assume that the R1 router is enabled for PIM-SM and receives a multicast packet sourced from 172.16.1.100, and the R1 router has multicast receivers on the Gi0/1, Gi0/2, Gi0/3 and Gi0/4 interfaces.

```
R1 routing table:
172.16.1.0/24 via Gi0/1
172.16.2.0/24 via Gi0/2
172.16.3.0/24 via Gi0/3
0.0.0.0/0 via Gi0/4
```

The multicast packet from the 172.16.1.100 source must arrive on which interface on the R1 router for it to be forwarded out the other interfaces?

- A. Gi0/1
- B. Gi0/2
- C. Gi0/3
- D. Gi0/4
- E. Gi0/1 or Gi0/2 or Gi0/3 or Gi0/4
- F. Gi0/2 or Gi0/3
- G. Gi0/1 or Gi0/4

Correct Answer: A

QUESTION 7

DRAG DROP

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.

Select and Place:

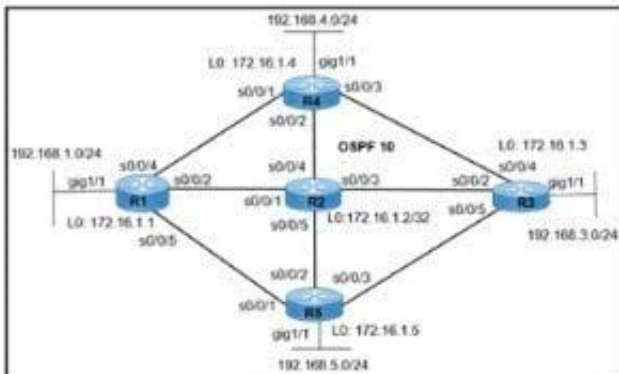
introduced IPv6 support	OSPFv3 [Empty Box] [Empty Box] [Empty Box]
introduced MD5 authentication	
process network information on a per-link basis	
processes network information on a per-subnet basis	OSPFv2 [Empty Box] [Empty Box]
uses a locally-significant instance ID	

Correct Answer:

[Empty Box]	OSPFv3 introduced IPv6 support process network information on a per-link basis uses a locally-significant instance ID
[Empty Box]	
[Empty Box]	
[Empty Box]	OSPFv2 introduced MD5 authentication processes network information on a per-subnet basis
[Empty Box]	

QUESTION 8

Refer to the exhibit.



```
R4 (config)# mpls label protocol ldp
R4 (config)# mpls ldp router-id loopback 0
R4 (config)# interface serial 0/0/1
R4 (config-if) # mpls-ip
R4 (config)# interface serial 0/0/2
R4 (config-if) # mpls-ip
R4 (config)# interface serial 0/0/3
R4 (config-if) # mpls-ip
```

```
R2 (config)# mpls label protocol ldp
R2 (config)# mpls ldp router-id loopback 0
R2 (config)# interface serial 0/0/1
R2 (config-if) # mpls-ip
R2 (config)# interface serial 0/0/3
R2 (config-if) # mpls-ip
```

```
R4 (config)# mpls ldp router-id loopback 0
R4 (config)# interface serial 0/0/1
R4 (config-if) # mpls-ip
R4 (config)# interface serial 0/0/2
R4 (config-if) # mpls-ip
R4 (config)# interface serial 0/0/3
R4 (config-if) # mpls-ip
```

```
R2 (config)# mpls label protocol ldp
R2 (config)# mpls ldp router-id loopback 0
R2 (config)# interface serial 0/0/1
R2 (config-if) # mpls-ip
R2 (config)# interface serial 0/0/3
R2 (config-if) # mpls-ip
R2 (config)# interface serial 0/0/5
R2 (config-if) # mpls-ip
```

MPLS traffic from 192.168.4.0/24 to 192.168.5.0/24 is failing to pass over the link from R4 to R2. The engineer verified

that:

1.
Cisco Express Forwarding Is enabled on all routers.
2.
All routers reach all networks via OSPF.
3.
MPLS traffic from 192.168.1.0/24 to 192.168.3.0/24 is passing normally over the link from R1 to R2. Which action resolves the issue?
 - A. On router R4, remove the mpls ip command on the s/O/O/2 interface.
 - B. On router R2, configure the mpls ip command on the SIO/O/4 interface.
 - C. On router R4, configure the mpls label protocol ldp command on all serial interfaces.
 - D. On router R2, configure the mpls label protocol ldp command on the interface.

Correct Answer: B

QUESTION 9

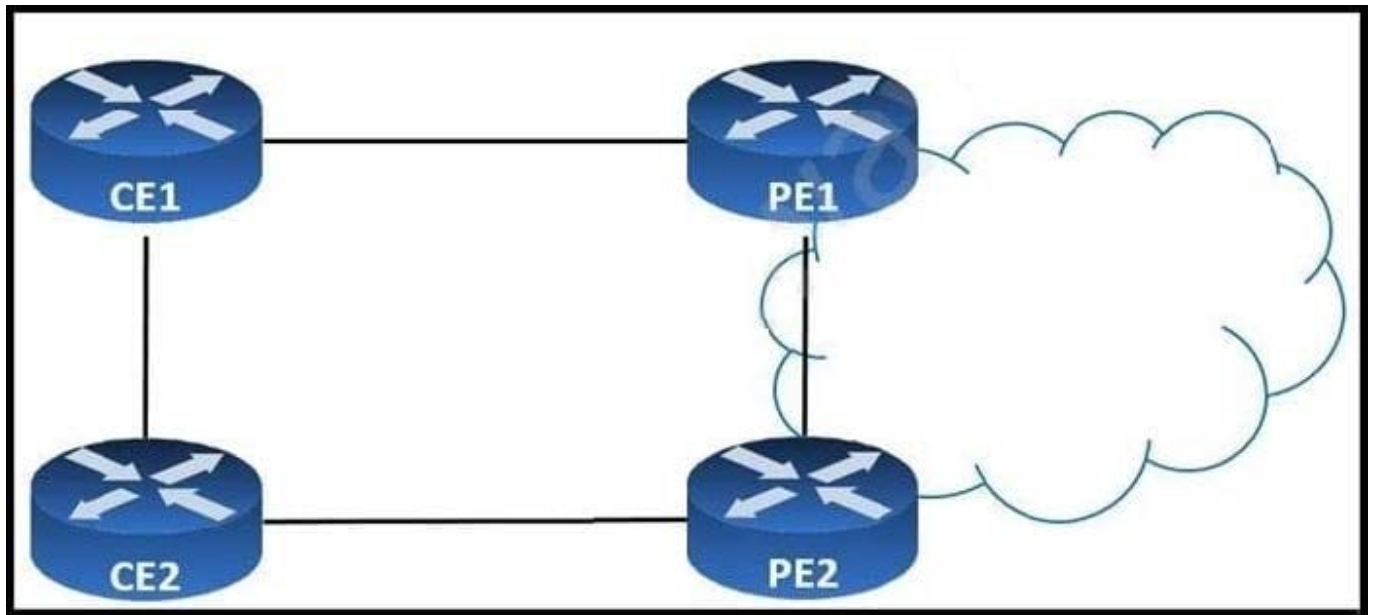
What Is a characteristic of a segment routing mapping server?

- A. It must be placed in the core of the network.
- B. It serves multiple VRFs.
- C. It must have an IGP adjacency.
- D. It applies SID mappings from one IGP instance to another IGP instance.

Correct Answer: C

QUESTION 10

Refer to the exhibit.



CE1 and CE2 are iBGP neighbors in AS 65516. All traffic that exits AS 65516 must use the link from CE1 to PE1. CE1 is advertising a higher local preference to CE2, but traffic from CE2 still prefers the PE2 link. Which action corrects the problem?

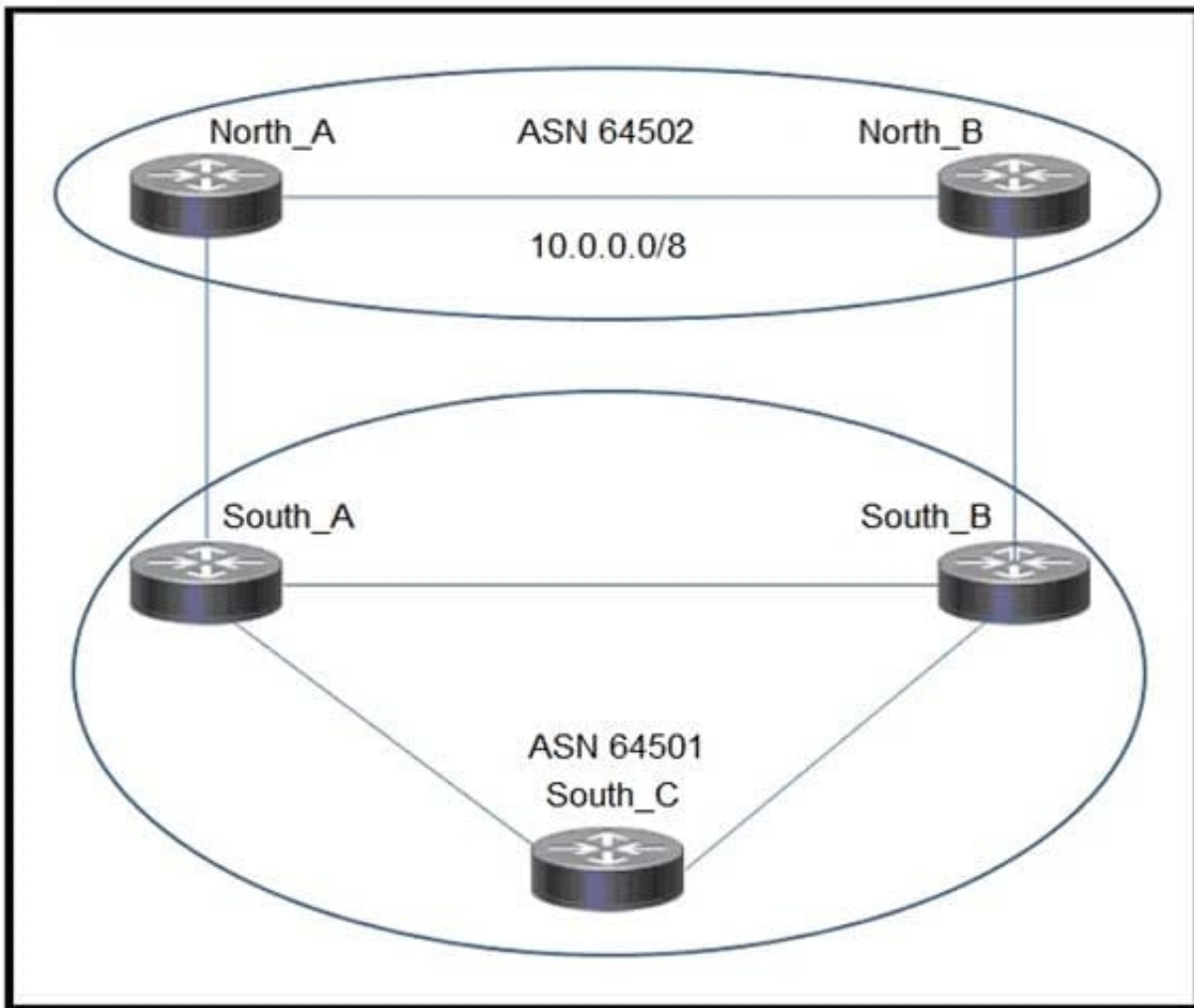
- A. Add the lower local-preference value on PE2 towards CE2.
- B. Configure CE1 to send routes to CE2 with a higher MED.
- C. Configure CE1 to send routes to CE2 with a higher weight.
- D. Add the next-hop self command to the CE1 neighbor statement for CE2.

Correct Answer: A

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

QUESTION 11

Refer to the exhibit.



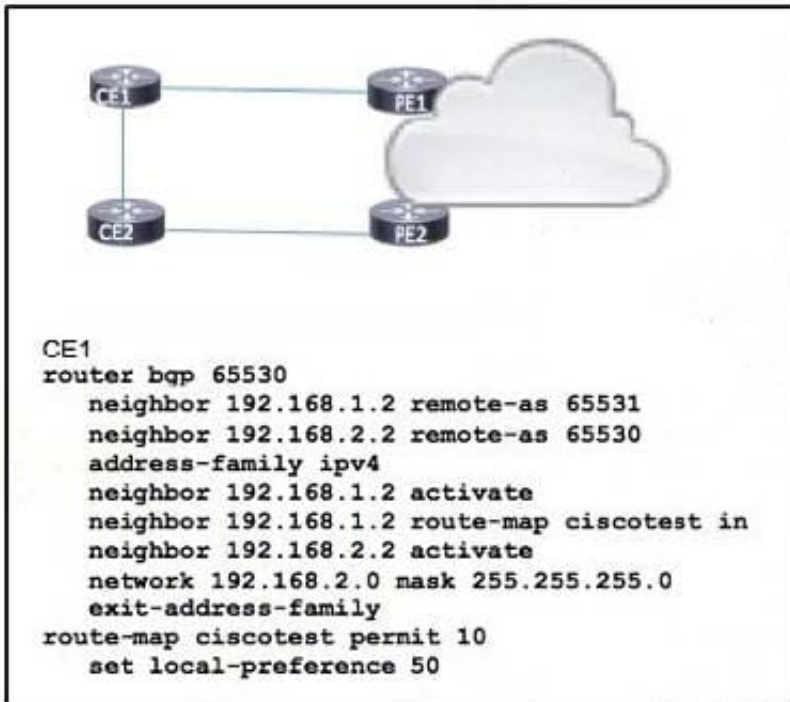
A network engineer sets up a multihoming eBGP topology where multiple Autonomous Systems connect to ASN 64501. The engineer wants to block all the routes coming from ASN 64502 but allow all the others. For that purpose, the following AS Path prefix list is being used: (config)#ip as-path access-list 10 deny _64502\$ What must be fixed to achieve this result?

- A. The AS-PATH filter must be defined inside the route-map mode
- B. The statement must be modified with ip as-path access-list 1 deny_64502_
- C. The statement must be modified with ip as-path access-list 1 deny ^64502\$
- D. At the end, ip as-path access-list 10 permit.* must be included

Correct Answer: D

QUESTION 12

Refer to the exhibit.



Routers CE1 and CE2 are in AS 65530. which is multihomed for Internet access.

An engineer expects inbound traffic to AS 65530 to arrive from PE1. but it is coming from PE2 instead PE1 and PE2 routers are connected with CE routers through the same bandwidth

Which action must be taken to correct the problem?

- A. On router CE2, configure inbound routes from PE2 to CE2 with a local-preference value of 50 or greater.
- B. Configure router CE1 to prepend the AS path to routes it receives from PE 1.
- C. Set the local-preference value on router CE1 to 100 or greater
- D. On router PE1 , change the origin for routes that are redistributed from CE1 to CE2.

Correct Answer: C