



Cisco

Exam Questions 300-510

Implementing Cisco Service Provider Advanced Routing Solutions (SPRI)

NEW QUESTION 1

PE-A	PE-B
vrf definition Customer-A	vrf definition Customer-A
rd 65000:1111	rd 65000:1111
route-target export 65000:1111	route-target export 65000:1111
route-target import 65000:1111	route-target import 65000:1111
!	!
address-family ipv4	address-family ipv4
mdt default 233.0.0.1	mdt default 233.0.0.1
mdt data 233.0.0.2 0.0.0.0 threshold 100	mdt data 233.0.0.3 0.0.0.0 threshold 100
exit-address-family	exit-address-family

Refer to the exhibit. Which tree does multicast traffic follow?

- A. shared tree
- B. MDT default
- C. source tree
- D. MDT voice

Answer: B

NEW QUESTION 2

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:

- A. Mastered
- B. Not Mastered

Answer: A

NEW QUESTION 3

A network consultant is troubleshooting IS-IS instances to identify why a routing domains is having communication problems between the two instances. Which description of the possible cause of issues in the routing domain is true?

- A. The same interface cannot be advertised in two different IS-IS instances
- B. The IS-IS "ISP" and "ISP2" instances are unrelated and unable to intercommunicate
- C. The configured IS-IS NSEL value is not allowing the routing systems to establish a neighborhood
- D. The interface mode ip router is-is command was not included in the script

Answer: A

NEW QUESTION 4

For which reason can two devices fail to establish an OSPF neighbor relationship?

- A. The two devices have different process IDs
- B. The two devices have different network types
- C. The two devices have different router IDs
- D. The two devices have the same area ID

Answer: B

NEW QUESTION 5

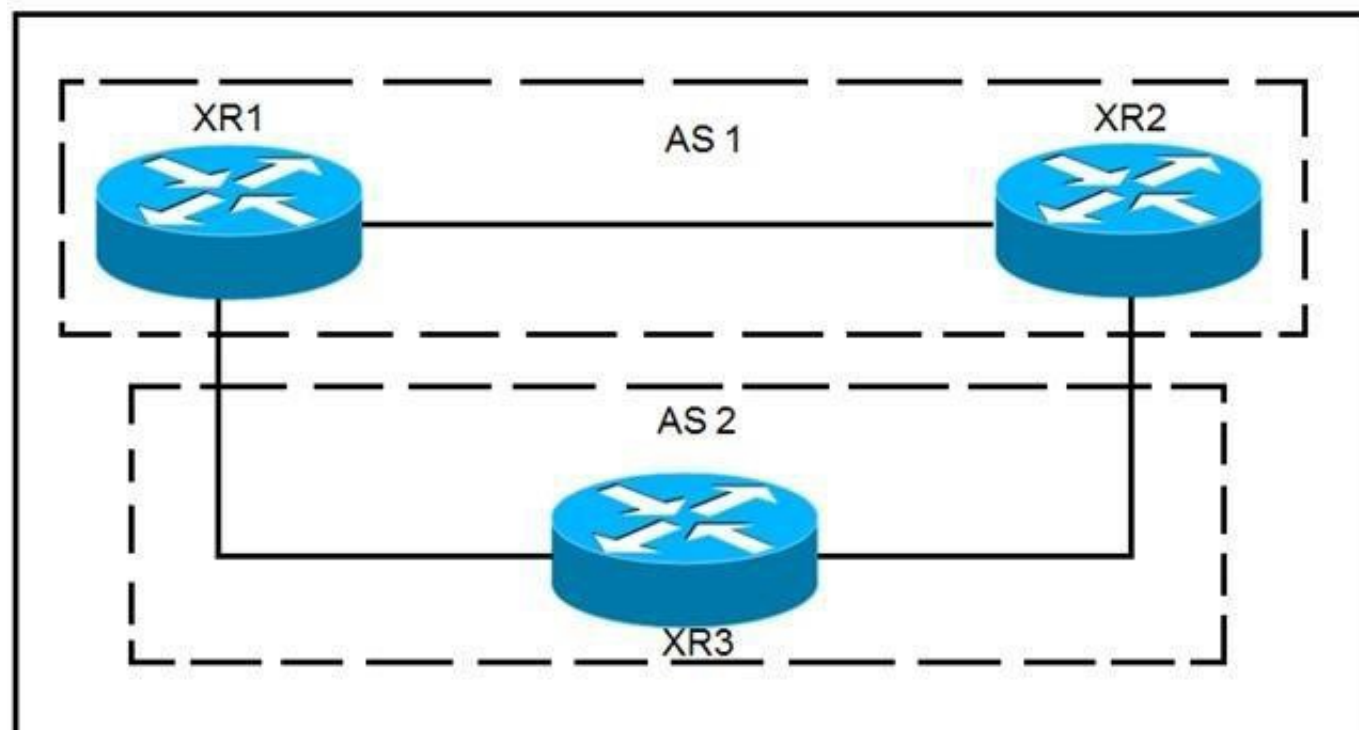
Refer to the exhibit. Which LSA type is indicated by this router output?

```
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

Answer: C

NEW QUESTION 6



Refer to the exhibit. XR1 and XR2 are sending the prefix 10.11.11.0/24 to XR3. A configured policy on XR1 is incorrectly prepending AS path 11 11 12 12 onto this prefix. A network operator wants to add a policy onto XR3 that will not allow the falsely prepending prefix from being installed. Which policy configuration applied to the XR3 neighbor configuration for XR1 can accomplish this requirement without impact to other or future received routes?

- A. route-policy NO_PREPEND
 if as-path passes-through '11' then
 pass
 else
 drop
 endif
 end-policy
- B. route-policy NO_PREPEND
 if as-path prepends
 drop
 else
 pass
 endif
 end-policy
- C. route-policy NO_PREPEND
 if as-path passes-through '1' then
 pass
 else
 drop
 endif
 end-policy
- C. route-policy NO_PREPEND
 if as-path passes-through '11' then
 drop
 else
 pass
 endif
 end-policy

Answer: D

NEW QUESTION 7

Router 1:

```
interface TenGigE0/1
  point-to-point
  address-family ipv4 unicast
    fast-reroute per-prefix
  Fast-reroute per-prefix ti-lfa
```

R1#show isis fast-reroute 172.16.200.9/32

```
L2 172.16.200.9/32 [30/115]
    via 192.168.20.1, TenGigE0/1, R2, SRGB Base: 16000, Weight: 0
    FRR backup via 192.168.30.1, TenGigE0/2, R3, SRGB Base: 16000,
    Weight: 0, Metric 40
```

Refer to the exhibit. Router 1 is connected to router 2 on interface TenGigE0/1. Which interface provides the alternate path to 172.16.200.9/32 when the link between router 1 and router 2 goes down?

- A. TenGigE0/1 interface provides the alternate path
- B. A backup path must be statically installed
- C. TenGigE0/2 interface provides the alternate path
- D. A primary path must be manually installed

Answer: C

NEW QUESTION 8

Refer to the exhibit. Router 1 is a core ABR in a Cisco Unified MPLS environment. All of the router 1 BGP peers are established, but traffic between customers is failing. Which BGP configuration must be added to the configuration?

- A. It must be configured for graceful restart
- B. It must be configured with a route reflector
- C. It must be configured with send labels
- D. It must be configured with PIC edge

Answer: C

NEW QUESTION 9

```
R1#sh ip int bri
Interface          IP-Address      OK? Method Status  Protocol
FastEthernet0/0    10.1.12.1       YES manual up      up
FastEthernet0/1    10.1.13.1       YES manual up      up
```

```
R1#sh run | s router bgp
!
router bgp 123
bgp log-neighbor-changes
neighbor TEST peer-group
neighbor TEST remote-as 2 alternate-as 3
neighbor 10.1.12.2 peer-group TEST
neighbor 10.1.13.3 peer-group TEST
```

```
R2#sh ip int bri
Interface          IP-Address      OK? Method Status  Protocol
FastEthernet0/0    10.1.12.2       YES manual up      up
```

```
R2#sh run | s router bgp
!
router bgp 2
bgp log-neighbor-changes
neighbor 10.1.12.1 remote-as 123
```

```
R3#sh ip int bri
Interface          IP-Address      OK? Method Status  Protocol
FastEthernet0/1    10.1.13.3       YES manual up      up
```

```
R3#sh run | s router bgp
router bgp 3
bgp log-neighbor-changes
neighbor 10.1.13.1 remote-as 123
```

Refer to the exhibit. R1 is directly connected to R2 and R3. R1 is in BGP AS 123, R2 is in BGP AS 2, and R3 is in BGP AS 3. Assume that there is no connectivity issue between R1, R2 and R1, R3. Which result between BGP peers R1, R2 and R1, R3 is true?

- A. The BGP session does not come up between R1 and R2 and between R1 and R3.
- B. The BGP session comes up between R1 and R2 and between R1 and R3.
- C. The BGP session comes up between R1 and R3, but not between R1 and R2.
- D. The BGP session comes up between R1 and R2, but not between R1 and R3.

Answer: B

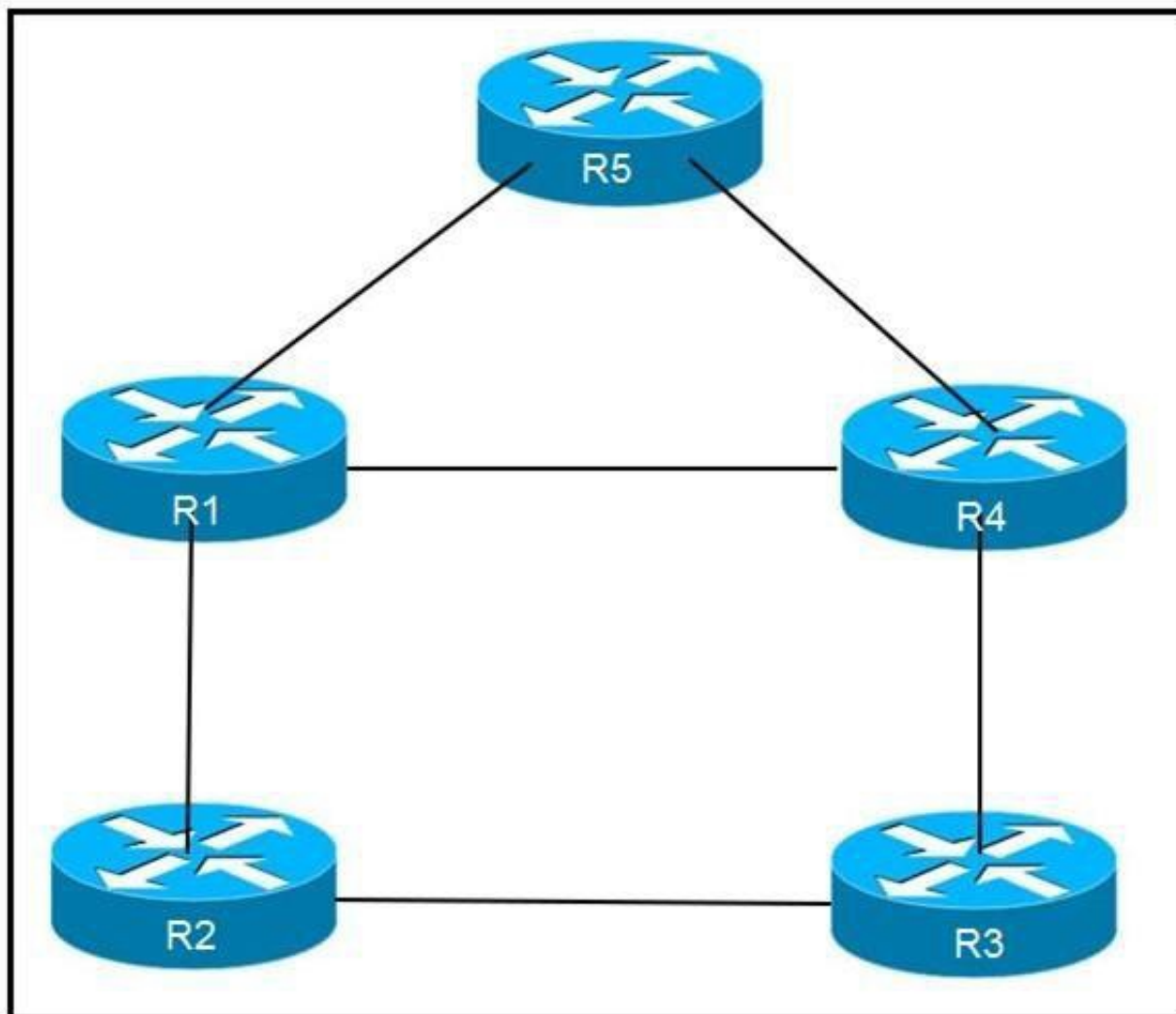
NEW QUESTION 10

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

Answer: D

NEW QUESTION 10



Refer to the exhibit. An engineer is addressing an IS-IS design issue which is running within the topology. All links are running on FastEthernet, except the link between R5 and R4, which is Gigabit Ethernet. Which statement about the design is true?

- A. R4 prefer to reach R5 using R1 as the next hop
- B. All links have equal cost if the default metric is used
- C. R5 prefers to use R4 as the next hop for all routes
- D. R1 prefer to use R5 as the next hop to reach R4

Answer: B

NEW QUESTION 12

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

- A. commit the configuration
- B. roll back the configuration
- C. merge the configuration
- D. save the running configuration

Answer: A

NEW QUESTION 15

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

NEW QUESTION 18

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.

Answer: CD

NEW QUESTION 19

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

- A. configure OSPFv3

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

Answer: D

NEW QUESTION 21

Which cost is the default when redistributing routes from BGP to OSPF?

- A. 20
- B. 1
- C. infinite
- D. automatic

Answer: B

NEW QUESTION 24

Refer to the exhibit. CE1 and CE2 cannot communicate through the service provider BGP peering is established between PE1 and PE2. IS-IS is the only routing protocol running in the service provider core. What step can be done to troubleshoot the issue?

- A. Switch the IGP's running in the core from IS-IS to OSPF to support a Cisco MPLS TE tunnel from PE1 to PE2.
- B. Configure BGP between CE and PE routers.
- C. Confirm that IS-IS is running with metric-style narrow.
- D. Verify the MPLS LSPs.

Answer: C

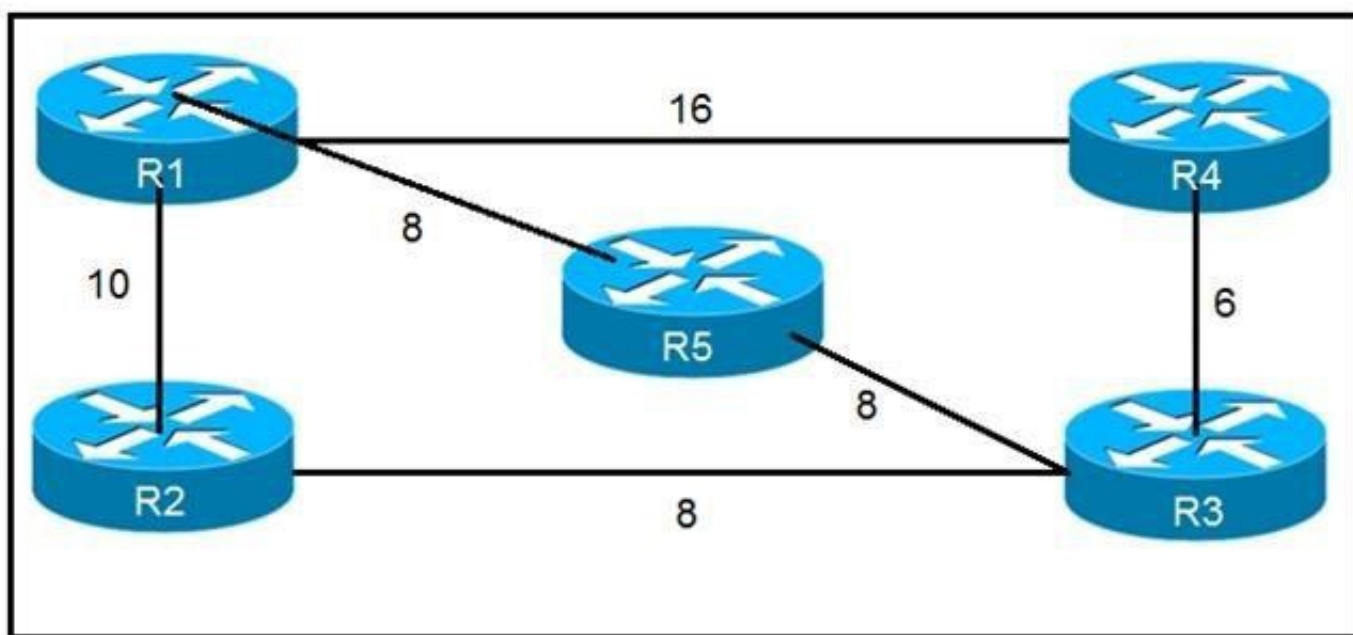
NEW QUESTION 27

Refer to the exhibit. Router 1 has attempted to establish a Cisco MPLS TE tunnel to router 2, but the tunnel has failed. Which statement about this configuration is true?

- A. Router 1 must define an explicit path to router 2
- B. Router 1 and router 2 must define the RSVP bandwidth reserved on the physical interfaces
- C. Router 2 must have a tunnel interface created with router 1 as the destination
- D. Router 1 must have Cisco MPLS TE enabled on interface gigabitethernet0/1

Answer: D

NEW QUESTION 28



Refer to the exhibit. Which router does R1 install as an alternate next hop when trying to reach R3 if LFA is enabled?

- A. R5
- B. R3
- C. R4
- D. R2

Answer: D

NEW QUESTION 33

```
RP/0/0/CPU/0:P1#
!
key chain BGP
key 1
accept-lifetime 13:14:06 february 14 1993 infinitive
send-lifetime 13:14:06 february 14 1993 infinitive
key-string password cisco123
cryptographic-algorithm MD5
!
!
router bgp 1
address-family ipv4 unicast
!
neighbor 192.168.13.3
remote-as 1
keychain BGP
address-family ipv4 unicast
```

```
RP/0/0/CPU/0:PE3#
!
key chain BGP
key 1
accept-lifetime 13:14:06 february 14 1993 infinitive
send-lifetime 13:14:06 february 14 1993 infinitive
key-string password cisco123
cryptographic-algorithm MD5
!
!
router bgp 1
address-family ipv4 unicast
!
neighbor 192.168.13.1
remote-as 1
keychain BGP
address-family ipv4 unicast
```

Refer to the exhibit. P1 and PE3 Cisco IOS XR routers are directly connected and have this configuration applied. The BGP session is not coming up. Assume that there is no IP reachability problem and both routers can open tcp port 179 to each other. Which two actions fix the issue? (Choose two.)

- A. Change MD5 to HMAC-SHA1-12
- B. Change MD5 to HMAC-ESP
- C. Change MD5 to SHA-1
- D. Change MD5 to HMAC-MD5
- E. Remove the send and accept lifetime under key 1

Answer: AD

NEW QUESTION 34

Which output from the show isis interface command helps an engineer troubleshoot an IS-IS adjacency problem on a Cisco IOS-XR platform?

- A. metric
- B. priority
- C. circuit type
- D. hello interval

Answer: D

NEW QUESTION 36

DRAG DROP

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. Select and Place:

- A. Mastered
- B. Not Mastered

Answer: A

NEW QUESTION 38

```
RP/0/0/CPU0:iosxr# show run segment-routing

segment-routing
  global-block 18000 24999
!

RP/0/0/CPU0:iosxr#
```

Refer to the exhibit. A network engineer implemented this segment routing configuration. Which statement about the output is true?

- A. This range conflicts with the segment routing local block range.
- B. The device must be reloaded for these ranges to be allocated and used.
- C. The default segment routing global block range is being used on this device.
- D. A nondefault segment routing global block range is being used on this device.

Answer: D

NEW QUESTION 39

Which two characteristics unique to SSM when compared to ASM are true? (Choose two.)

- A. It uses SPT switchover
- B. It uses (*,G) exclusively
- C. It uses IGMPv3
- D. It uses RP
- E. It uses (S,G) exclusively

Answer: CE

NEW QUESTION 41

Refer to the exhibit. An engineer has successfully fixed BGP peering issue. R1 has an established eBGP peering with R2 and R3. Which mechanism should the engineer apply in order to steer the traffic correctly?

- A. The MED attribute can be applied on R2 to influence R1 to use it as the primary path.
- B. The local preference attribute can be applied on R3 to influence AS 65513 to use AS 65515 as the secondary path.
- C. The weight attribute can be applied on R2 to influence AS 65513 to use AS 65515 as the primary path.
- D. The IGP metric can be manipulated on R1 to allow traffic to be load balanced between R2 and R3.

Answer: D

NEW QUESTION 42

Refer to the exhibit. Which attribute can router 1 alter so that only other iBGP peers prefer to use 192.168.4.2 as the next hop for route 192.168.3.0/24?

- A. MED
- B. local preference
- C. origin
- D. weight

Answer: A

NEW QUESTION 43

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