

Cisco 642-661

**CISCO 642-661 Configuring BGP on Cisco Routers
Exam
Practice Test
Version 3.3**

QUESTION NO: 1

Why can using the ip tcp path-mtu-discovery command improve BGP convergence?

- A. Smaller MSS sizes may reduce BGP convergence times.
- B. BGP is enabled to fragment its large update packets.
- C. The BGP memory requirements on routers are reduced.
- D. Single packet sizes in TCP sessions are limited.
- E. BGP is allowed to use a larger TCP window size.

Answer: E

QUESTION NO: 2

Refer to the outputs shown in the exhibit. What could be preventing the R1 router from receiving any prefixes from the R2 BGP neighbor?

```
R1#show ip bgp summary
BGP router identifier 199.199.199.199, local AS number 20
BGP table version is 45, main routing table version 45
44 network entries using 4444 bytes of memory
81 path entries using 3888 bytes of memory
13 BGP path attribute entries using 780 bytes of memory
11 BGP AS-PATH entries using 264 bytes of memory
4 BGP route-map cache entries using 64 bytes of memory
0 BGP filter-list cache entries using 0 bytes of memory
BGP using 9440 total bytes of memory
BGP activity 88/44 prefixes, 191/110 paths, scan interval 5 secs

Neighbor      V    AS MsgRcvd MsgSent  TblVer  InQ  OutQ  Up/Down  State/PfxRcd
192.168.1.17   4     1   1628   2693     45    0     0 00:42:22     31
192.168.20.22  4    22     70     73     45    0     0 00:42:26     31
192.168.31.1   4 65002    172    274      0     0     0 00:00:13 Idle

R1#telnet 192.168.31.1
Trying 192.168.31.1 ... Open

User Access Verification

Password: cisco

R2#sh run | begin bgp
router bgp 65002
  bgp confederation identifier 1
  bgp confederation peers 65001
  network 10.0.0.0
  neighbor 192.168.31.2 remote-as 20
```

- A. R2 is using the wrong AS number in its neighbor 192.168.31.2 remote-as statement.
- B. The no sync command is missing on R2.
- C. R1 is using the wrong AS number in its neighbor 192.168.31.1 remote-as statement.
- D. The no sync command is missing on R1.
- E. Both R1 and R2 are not using a loopback address to source their BGP packets.
- F. There is a TCP session establishment problem between R1 and R2.

Answer: C

QUESTION NO: 3

Which configuration will enable the R1 router in the AS51003 sub-AS (member-AS) as a route reflector with neighbors 10.1.1.1 and 10.2.2.2 as its route-reflector clients?

- A. ! R1 routerbgp 51003 bgp confederation identifier 55111 bgp confederation peers 51001 51002 neighbor 10.1.1.1 remote-as 51001 neighbor 10.2.2.2 remote-as 51002 neighbor 10.1.1.1 route-reflector-client neighbor 10.2.2.2 route-reflector-client
- B. ! R1 routerbgp 55111 bgp confederation identifier 51003 neighbor 10.1.1.1 remote-as 51003 neighbor 10.2.2.2 remote-as 51003 neighbor 10.1.1.1 route-reflector-client neighbor 10.2.2.2 route-reflector-client
- C. ! R1 routerbgp 55111 bgp confederation identifier 51003 neighbor 10.1.1.1 remote-as 55111 neighbor 10.2.2.2 remote-as 55111 neighbor 10.1.1.1 route-reflector-client neighbor 10.2.2.2 route-reflector-client
- D. ! R1 routerbgp 51003 bgp confederation identifier 55111 bgp confederation peers 51001 51002 neighbor 10.1.1.1 remote-as 51003 neighbor 10.2.2.2 remote-as 51003 neighbor 10.1.1.1 route-reflector-client neighbor 10.2.2.2 route-reflector-client

Answer: D

QUESTION NO: 4

How does the extended community cost feature influence the BGP best path selection?

- A. inserts the cost attribute after the MED attribute comparison, forcing best path route selection if all other preferred route selection criteria are equal
- B. selects the BGP route with the highest attached extended community cost value
- C. alters the BGP AS exit path selection by adding the link cost to the local preference
- D. acts as a best path "tie breaker" when multiple IGP equal cost paths occur
- E. reflects the bandwidth of links entering the local AS from BGP neighbors (in the MED attribute)

Answer: D

QUESTION NO: 5

Lab

In the Transit AS 65001, router P1R3 has no BGP routes in its routing table and as a result has a problem reaching any networks external to AS 65001.

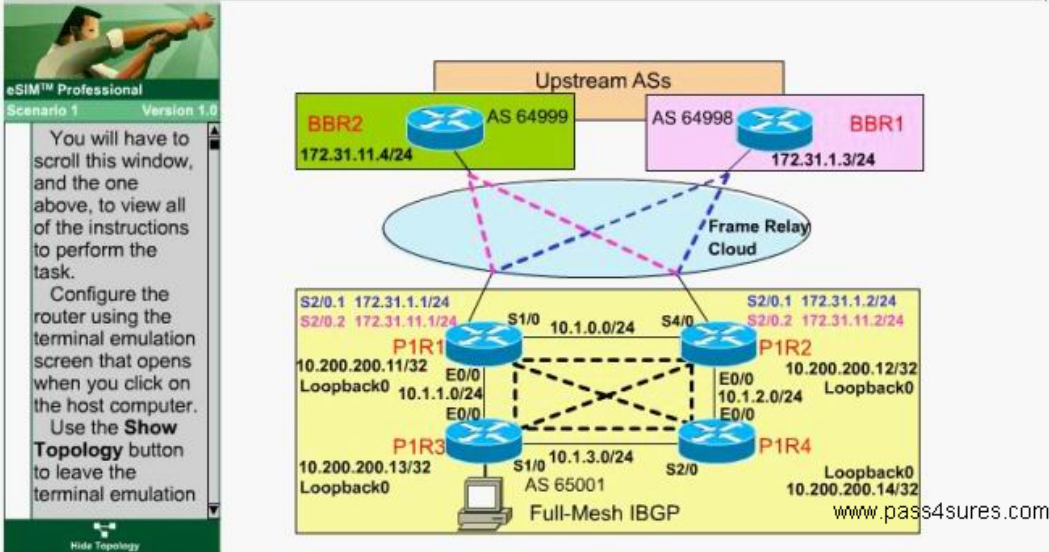
Unlike router P1R3, the other routers in AS 65001 (P1R1, P1R2 and P1R4) are not experiencing any network connectivity issues.

All BGP routes are properly inserted into the P1R4 routing table as shown below.

P1R4#sh ip route bgp

B 192.168.12.0/24 [200/0] via 10.200.200.12, 00:00:26

B 192.168.13.0/24 [200/0] via 10.200.200.12, 00:00:26



Explanation:

```
P1R3> enable
```

```
P1R3# config terminal
```

```
P1R3(config)# router bgp 65001
```

```
P1R3(config-router)# no synchronization
```

```
P1R3(config-router)# neighbor 10.200.200.12 weight 100
```

```
P1R3(config-router)# end
```

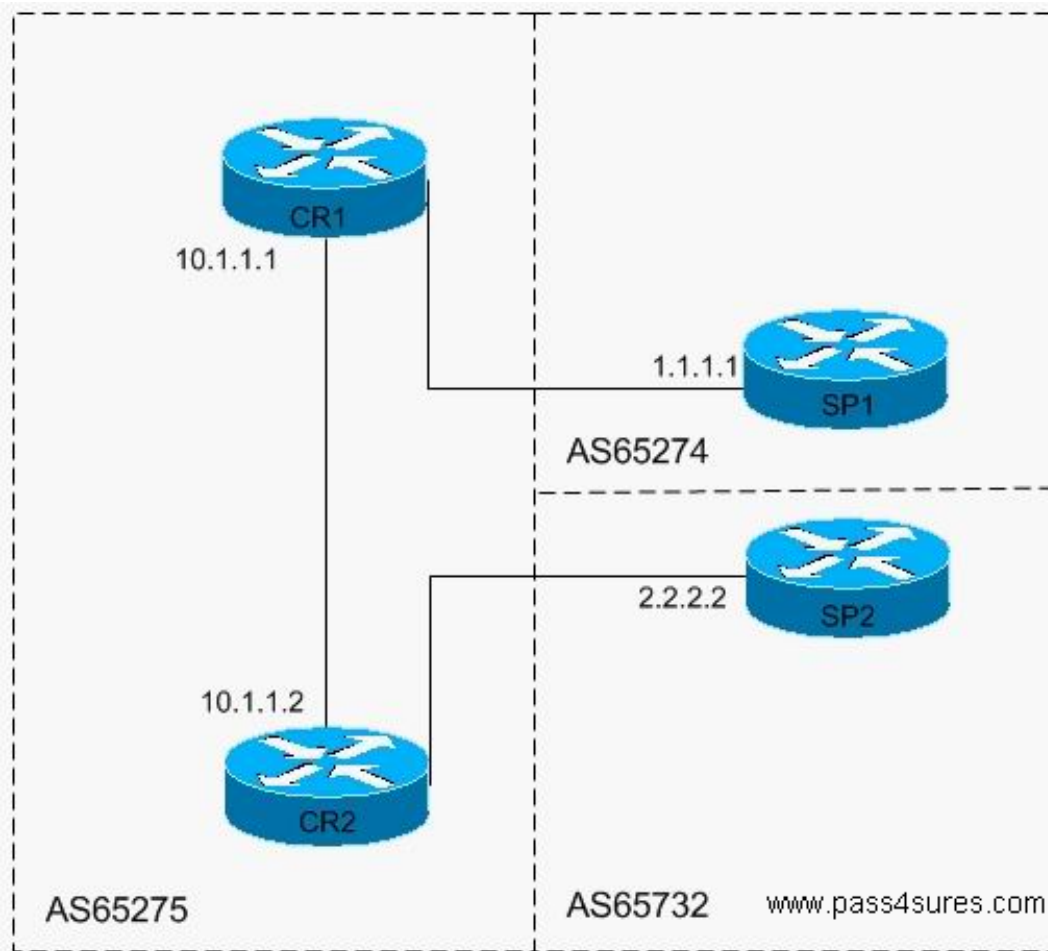
```
P1R3# clear ip bgp * soft in
```

```
P1R3# show ip bgp
```

```
P1R3# copy run start
```

QUESTION NO: 6

Refer to the partial topology diagram shown. Service Provider 1 (SP1) assigned the customer an AS number of 65275. Service Provider 2 (SP2) assigned an AS number of 65745 to the customer. The customer decides to use AS 65275 internally. Which of the following is the correct partial router configuration to cause updates from CR1 to SP1 to report a source AS of 65275, while updates from CR2 to SP2 report the source AS of 65745 in addition to AS 65275?



- A. !CR1routerbgp 65275neighbor 1.1.1.1 remote-as 65274neighbor 10.1.1.2 remote-as 65275!CR2router bgp 65745neighbor 2.2.2.2 remote-as 65732neighbor 2.2.2.2 local-as 65275neighbor 10.1.1.1 remote-as 65275
- B. !CR1routerbgp 65275neighbor 1.1.1.1 remote-as 65274neighbor 10.1.1.2 remote-as 65275!CR2router bgp 65275neighbor 2.2.2.2 remote-as 65732neighbor 2.2.2.2 local-as 65745neighbor 10.1.1.1 remote-as 65275
- C. !CR1routerbgp 65275neighbor 1.1.1.1 remote-as 65274neighbor 1.1.1.1 local-as 65745neighbor 10.1.1.2 remote-as 65275!CR2router bgp 65275neighbor 2.2.2.2 remote-as 65732neighbor 2.2.2.2 local-as 65745neighbor 10.1.1.1 remote-as 65275
- D. !CR1routerbgp 65275neighbor 1.1.1.1 remote-as 65274neighbor 10.1.1.2 remote-as 65275!CR2router bgp 65745neighbor 2.2.2.2 remote-as 65732neighbor 2.2.2.2 local-as 65745neighbor 10.1.1.1 remote-as 65275

Answer: B

QUESTION NO: 7

Which two statements about a transit AS are correct? (Choose two.)

- A. A transit AS uses an IGP like OSPF or ISIS to propagate the external networks within the transit AS.

- B. Routes between ASs are always exchanged via eBGP.
- C. iBGP sessions can be established between non directly connected routers.
- D. A transit AS has eBGP connection(s) to only one external AS.
- E. Core routers within a transit AS normally use default routing to reach the external networks.

Answer: B,C

QUESTION NO: 8

Which one of these statements regarding intraconfederation EBGP sessions is correct?

- A. Member-AS numbers are removed when a router sends a BGP update over an intraconfederation EBGP session.
- B. An intraconfederation EBGP session behaves like an IBGP session when propagating routing updates.
- C. Updates from an intraconfederation EBGP neighbor are subject to the BGP split horizon rule.
- D. Intraconfederation EBGP sessions must be established over loopback interfaces.
- E. Intraconfederation EBGP neighbors must be directly connected.

Answer: B

QUESTION NO: 9

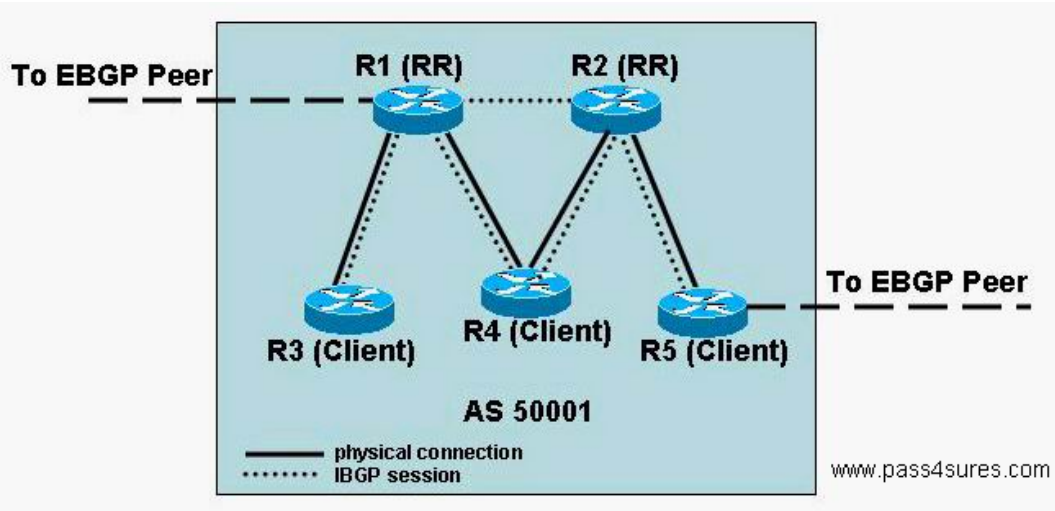
When verifying the BGP neighbor relationships on your router, you issue the show ip bgp summary command and there were no results. Which of the following could be the problem?

- A. The neighbor link is down.
- B. All BGP updates from the BGP neighbor were filtered out.
- C. The TCP session to the BGP neighbor can't be established.
- D. There are no BGP neighbors configured.

Answer: D

QUESTION NO: 10

Refer to the diagram. What should be changed within AS 50001 to improve the route reflector design?

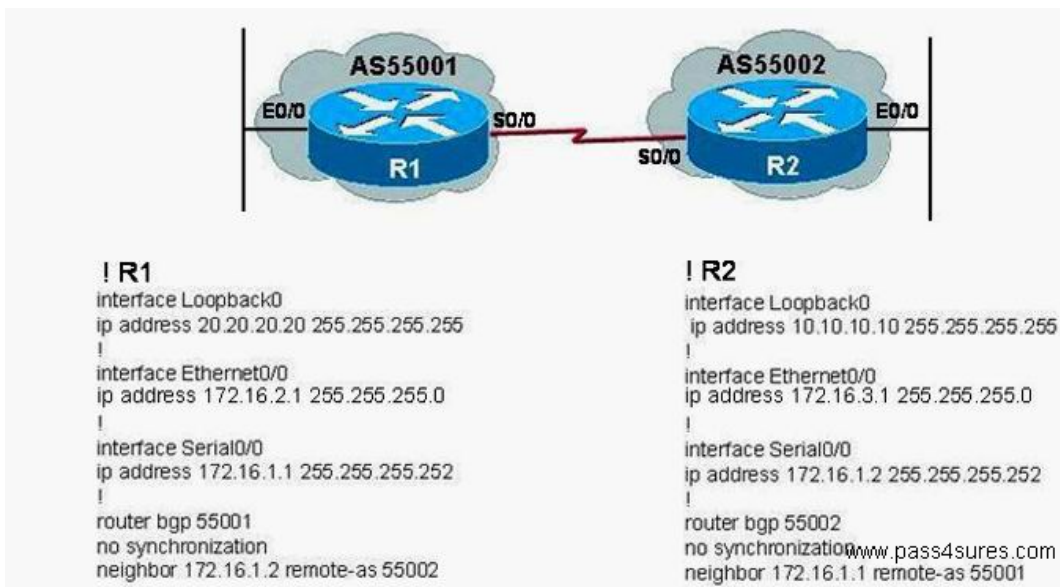


- A. Remove the IBGP session between the two redundant RRs (R1 and R2).
- B. Add an IBGP session between each pair of clients (between R3 and R4, R4 and R5).
- C. Make R4 the RR and R1 and R2 its clients. R3 and R5 should be a non-RR/non-client.
- D. Add a physical link between R1 and R2.
- E. Add a physical link between the clients (R3 and R4, and between R4 and R5).

Answer: D

QUESTION NO: 11

Examine the topology and the configuration output. If the show ip bgp summary command was issued from R1, how many prefixes would it have in the State/PfxRcd field?

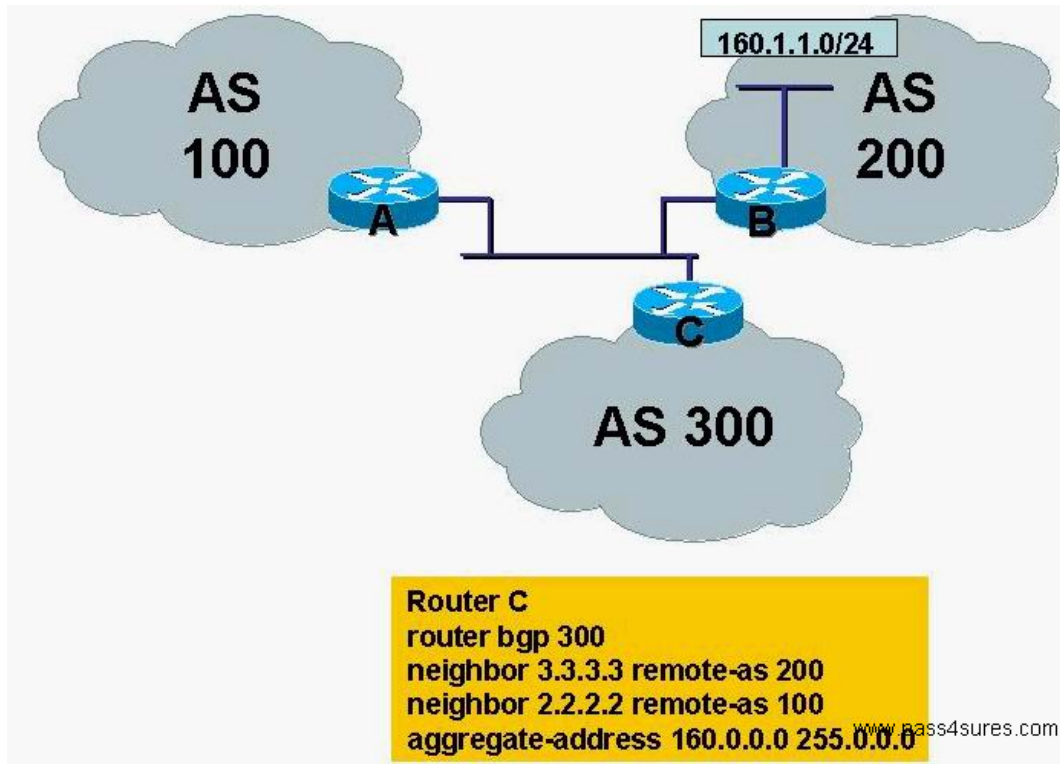


- A. 1
- B. 0
- C. 3
- D. 2

Answer: B

QUESTION NO: 12

Refer to the exhibit. Which two of these statements are correct? (Choose two.)



- A. Router C cannot aggregate the 160.0.0.0/8 prefix if it does not have a more specific prefix in its BGP table.
- B. Router C will only aggregate the 160.0.0.0/8 prefix for any updates it is sending to AS 200.
- C. Router C will advertise the 160.0.0.0/8 prefix and all of the more specific prefixes.
- D. Router C will aggregate the address and advertise only the summary address to its neighbors.
- E. To aggregate the 160.0.0.0/8 prefix, router C must originate that prefix from within AS 300.

Answer: A,C

QUESTION NO: 13

Which four attributes are used by BGP to detect routing loops? (Choose four.)

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

Answer: A,C,D,E

QUESTION NO: 14

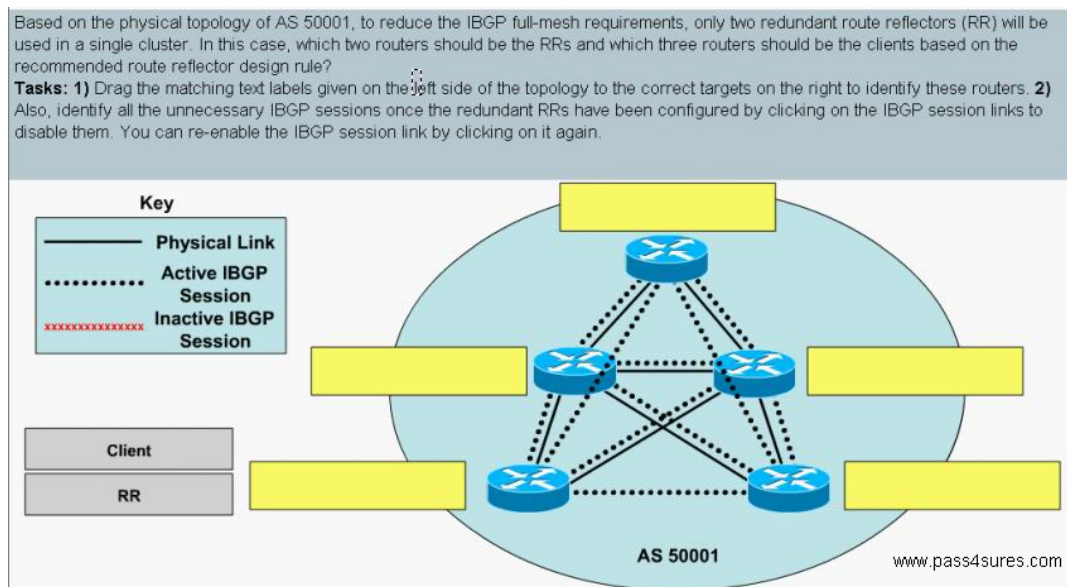
As the penalty for a flapping route decreases and falls below a certain limit, the route is nsuppressed. What is the name of that limit?

- A. half-life limit
- B. suppress limit
- C. max-suppress-time limit
- D. reuse limit

Answer: D

QUESTION NO: 15 DRAG DROP

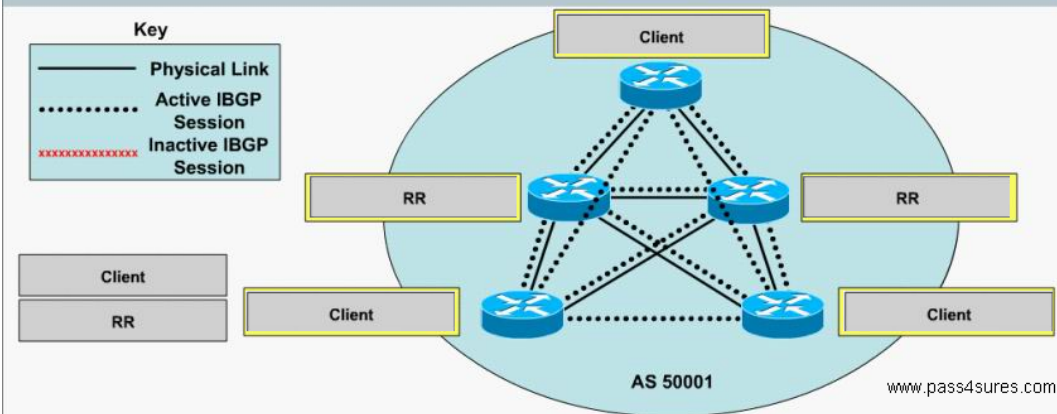
Look at the picture.



Answer:

Based on the physical topology of AS 50001, to reduce the IBGP full-mesh requirements, only two redundant route reflectors (RR) will be used in a single cluster. In this case, which two routers should be the RRs and which three routers should be the clients based on the recommended route reflector design rule?

Tasks: 1) Drag the matching text labels given on the left side of the topology to the correct targets on the right to identify these routers. **2)** Also, identify all the unnecessary IBGP sessions once the redundant RRs have been configured by clicking on the IBGP session links to disable them. You can re-enable the IBGP session link by clicking on it again.



QUESTION NO: 16

You are a customer who is multihomed to two different ISPs—one for primary and another for backup. Each ISP assigned you a different AS number. How should you implement your AS number?

- A. Use both AS numbers.
- B. Use the AS number assigned by the primary ISP.
- C. Use the AS number assigned by the backup ISP.
- D. Use the AS number assigned by one of the ISPs, then use AS-pathprepending to prepend the other AS number when connecting to the other ISP.
- E. Use the AS number assigned by one of the ISPs, then use AS number translation when connecting to the other ISP.

Answer: E

QUESTION NO: 17

When creating iBGP multipaths which three criteria must be met by multiple paths to the same destination? (Choose three.)

- A. The destination AS-number must be different for each destination.
- B. Each destination must have a different next-hop address.
- C. Router IDs must be the same on all routers.
- D. Multi-exit discriminator attributes must be the same on all paths.
- E. Interior Gateway Protocol distance must be identical on each path.