DUMPSARENA

Implementing Cisco Service Provider Advanced Routing Solutions

Cisco 300-510

Version Demo

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Topic Break Down

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QUESTION NO: 1

Which keyword is used with the match route-type command to redistribute the external BGP and IGP routes using route map?

A. match route-type type-1

B. match route-type nssa-external

C. match route-type type-2

D. match route-type external

ANSWER: D

Explanation:

Reference: https://www.cisco.com/c/en/us/support/docs/ip/border-gateway-protocol-bgp/49111-route-map-bestp.html

QUESTION NO: 2

```
RP/0/0/CPUO:PE 1#show mpls traffic-eng tunnels
Name: tunnel-te 1 Destination: 192.168.0.7 Ifhandle:Oxb0
  Signalled-Name: iosxrv-2_t1
  Status:
    Admin: up Oper: up Path: valid Signalling: connected

    path option 1, type dynamic (Basis for Setup, path weight 2)
    G-PID: 0x0800 (derived from egress interface properties)
    Bandwidth Requested: 1000 kbps CTO
    Creation Time: Fri Aug 28 01:33:04 2019 (01:10:56 ago)
  Config Parameters:
    Bandwidth: 1000 kbps (CTO) Priority: 7 7 Affinity: 0x0/Oxffff
    Metric Type: TE (global)
    Path Selection:
      Tiebreaker: Min-fill (default)
    Hop-limit: disabled
    Cost-limit: disabled
    Path-invalidation timeout: 10000 msec (default), Action: Tear (default)
    AutoRoute: enabled LockDown: disabled Policy class: not set
    Forward class: 0 (default)
    Forwarding-Adjacency: disabled
    Autoroute Destinations: 0
    Loadshare:          O equal loadshares
    Auto-bw: disabled
    Fast Reroute: Enabled, Protection Desired: Any
    Path Protection: Not Enabled
    BFD Fast Detection: Disabled
    Reoptimization after affinity failure: Enabled
    Soft Preemption: Disabled
```

```
RP/0/0/CPUO:PE1#show run
mpls traffic-eng
  soft-preemption
    timeout 10
!
interface tunnel-te 1
  ipv4 unnumbered Loopback0
  signalled-bandwidth 1000
  autoroute announce
  destination 192.168.0.7
  fast-reroute
  path-option 1 dynamic
```

Refer to the exhibit. A network operator is troubleshooting TE tunnels and discovers that the soft preemption is not working as desired. Where should the soft preemption be applied to solve the issue?

A. under the tunnel-te1 interface on PE1

B. on the tail-end device for tunnel-te1 192.168.0.7

C. under the interface Loopback0 necessary for this deployment type

D. explicitly for tunnel-te 1 under the Cisco MPLS TE configuration mode after the timeout setting

ANSWER: A

QUESTION NO: 3

```
R4#show ip pim interface

Address      Interface          Ver/      Nbr       Query     DR      DR
                                Mode      Count     Intvl     Prior

10.1.1.1     FastEthernet0/0    v2/S      1         30        1       10.1.1.2
```

Refer to the exhibit. Which two commands must the engineer configure for the company's PIM-SM network to enable Auto-RP mappings to be sent over the FastEthernet0/0 interface, without affecting normal operation? (Choose two.)

A. enable auto-rp listener

B. enable sparse-mode

C. enable Auto-RP announcements

D. enable sparse-dense mode

E. enable dense mode

ANSWER: A B

QUESTION NO: 4

What are three requirements for a static IPv6-in-IPv4 tunnel? (Choose three.)

A. A dynamic IPv6 address must be configured

B. A dynamic IPv4 address must be configured

C. A static IPv4 address must be configured

D. A static IPv6 address must be configured

E. Each tunnel endpoint must support IPv4 and IPv6

F. Cisco Express Forwarding must be enabled

ANSWER: B D E

QUESTION NO: 5

In a PIM-SM environment, which mechanism determines the traffic that a receiver receives?

A. The receiver explicitly requests its desired traffic from the RP on the shared tree.

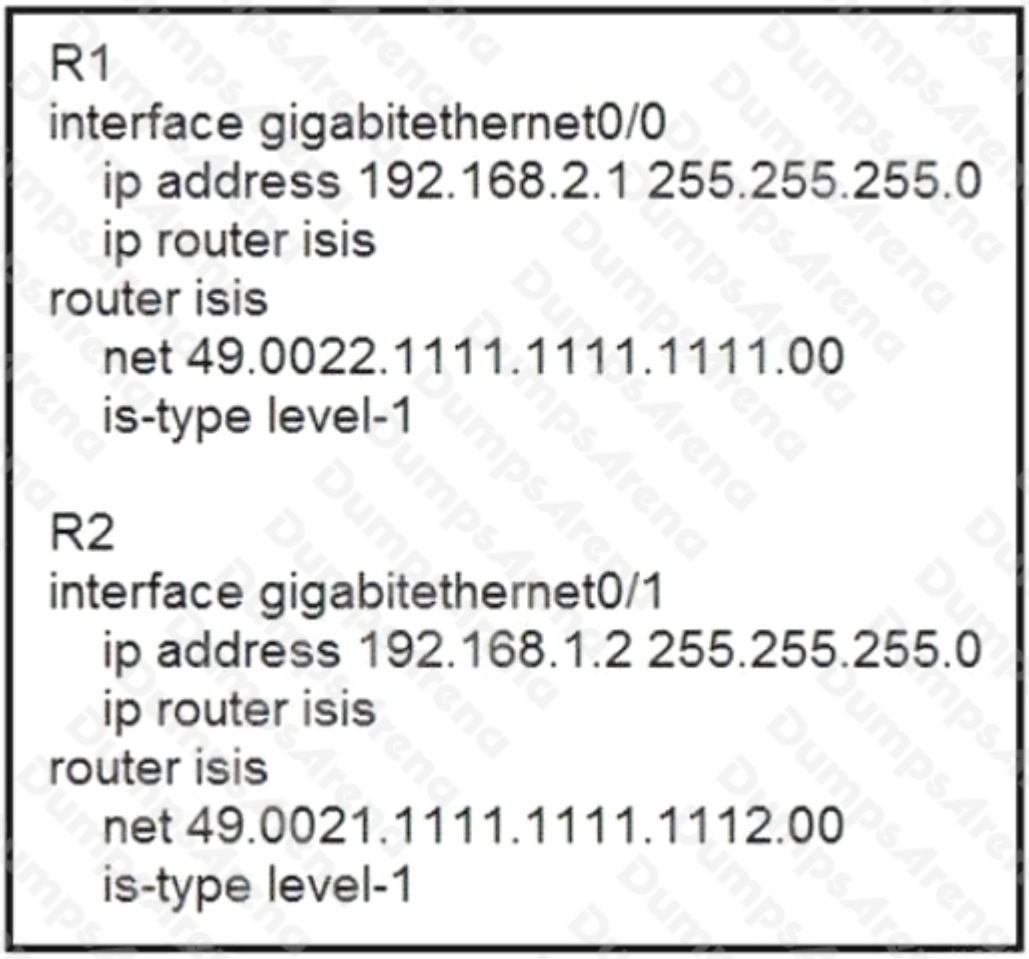
B. The receiver explicitly requests traffic from a single source, which responds by forwarding all traffic.

C. The RP on the shared tree floods traffic out of all PIM configured interfaces.

D. The receiver explicitly requests traffic from each desired source, which responds by sending all traffic.

ANSWER: D

QUESTION NO: 6



Refer to the exhibit. Routers R1 and R2 cannot form a neighbor relationship, but the network is otherwise configured correctly and operating normally. Which two statements describe the problem? (Choose two.)

A. The two routers are in the same area

B. The two routers are in different subnets

C. The two routers have password mismatch issues

D. The two routers have the same network ID

E. The two routers are in different areas

ANSWER: B E

QUESTION NO: 7

Refer to the exhibit.

```
R1#
interface LoopBack0
    no ip address
    ipv6 address 2000:1::1/96
interface Loopback2
    no ip address
    ipv6 address 2000:1::1/86
    ipv6 router isis area1

R2#show isis ipv6 unicast rib
IS-IS IPv6 process area1, local RIB
*  2000:1::/96
       via FE80::C801:4CFF:FE54:8/FastEthernet0/0, type L1 metric 10 tag 0 LSP [5/6]
       via FE80::C801:4CFF:FE54:8/FastEthernet0/0, type L2 metric 10 tag 0 LSP [4/6]
   2001:688:1001:1000::2/128
       via FE80::C801:4CFF:FE54:8/FastEthernet0/0, type L2 metric 20 tag 0 LSP [4/6]
```

After configuring IS-IS on routers R1 and R2, an engineer notices that only the loopback interface at 2000:1::1 /96 is known to router R2. Which change must be made so that only Loopback2 is advertised from R1 to R2?

A. Configure the router isis areal command under the LoopbackO interface on R1.

B. Remove the advertise passive-only command under the IS-IS address family ipv6 configuration

C. Remove the ipv6 router isis areal command under the Loopback2 interface on R1.

D. Remove the passive-interface Loopback0 command under the router isis areal configuration.

ANSWER: B

QUESTION NO: 8

Which two conditions must be met before separate ISPs can provide interdomain multicast routing? (Choose two.)

A. Each ISP must configure MSDP to connect its individual multicast administrative domain to the domains at other ISPs.

B. Each ISP must dedicate a single router to handle multicast traffic between providers.

C. Each ISP must replace its RP assignment with a global RP.

D. Each ISP must configure its network to use PIM-DM.

E. Each ISP must support intradomain multicast routing.

ANSWER: A E

QUESTION NO: 9

What are two differences between OSPF and IS-IS? (Choose two.)

A. Unlike IS-IS routers, an OSPF router belongs to only one area in addition to the backbone area

B. OSPF uses a router ID to identify a router, and IS-IS uses a system ID

C. OSPF is a link-state routing protocol, and IS-IS is a distance-vector routing protocol

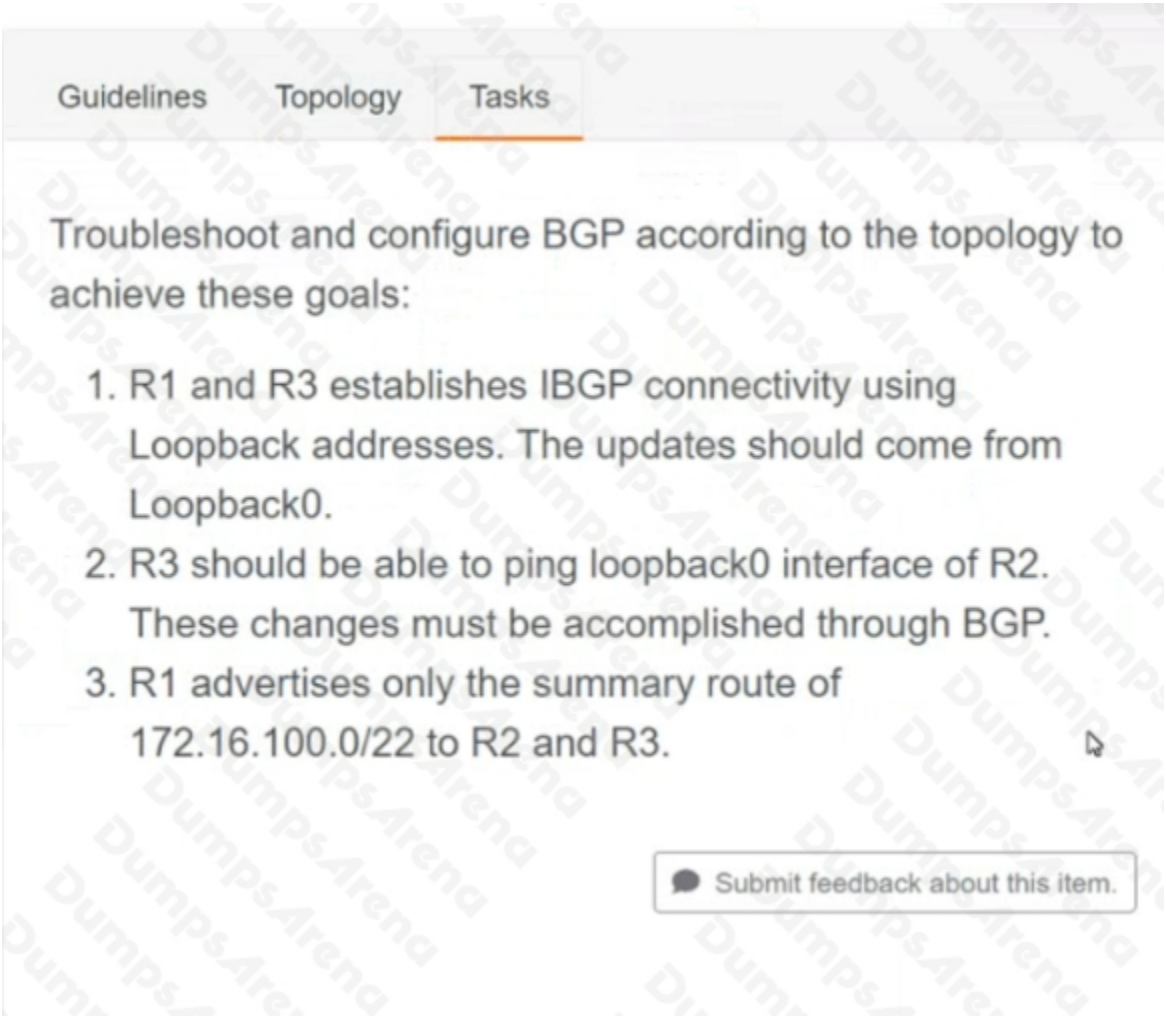
D. Unlike OSPF, IS-IS supports virtual links

E. OSPF elects a DR and BDR, and IS-IS elects a DIS

ANSWER: B E

QUESTION NO: 10 - (SIMULATION)


Guidelines
Topology
Tasks
AS 100
Lo0:10.1.1.1/32
Lo1: 172.16.100.0/24
Lo2: 172.16.102.0/24
Lo3: 172.16.103.0/24
E0/0
.1
R1
E0/1
.1
Lo0:
10.2.2.2/32
EBGP
172.20.1.0/24
172.20.2.0/24
IBGP
Lo0:
10.3.3.3/32
AS 200
E0/0
.2
E0/1
.3
AS 100
R2
R3



See the solution below in Explanation.

Explanation:

Solution :-

R1

Router bgp 100

Neigh 10.3.3.3 remote-as 100

Neigh 10.3.3.3 update-source loopback0

Address-family ipv4

Neigh 10.3.3.3 next-hop-self

Aggregate-address 172.16.100.0 255.255.252.0 summary-only

Copy run start

R3

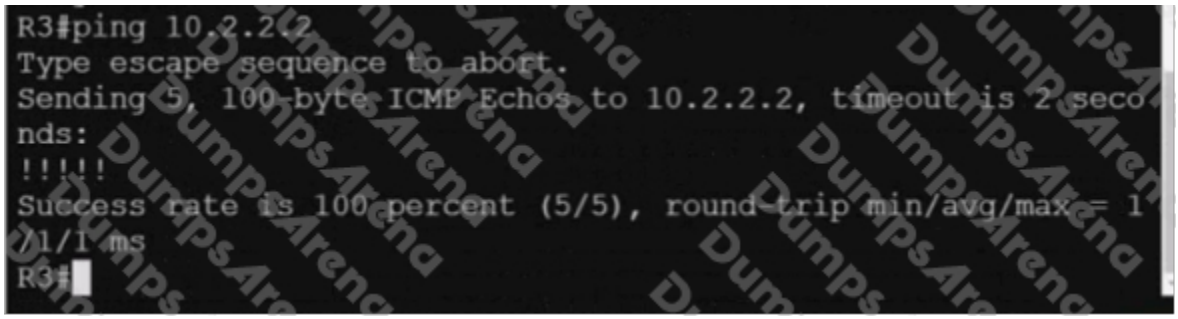
Router bgp 100

Neigh 10.1.1.1 remote-as 100

Neigh 10.1.1.1 update-source loopback 0

Copy run start

Verification:-



ANSWER:

Explanation:

Solution :-

R1

Router bgp 100

Neigh 10.3.3.3 remote-as 100

Neigh 10.3.3.3 update-source loopback0

Address-family ipv4

Neigh 10.3.3.3 next-hop-self

Aggregate-address 172.16.100.0 255.255.252.0 summary-only

Copy run start

R3

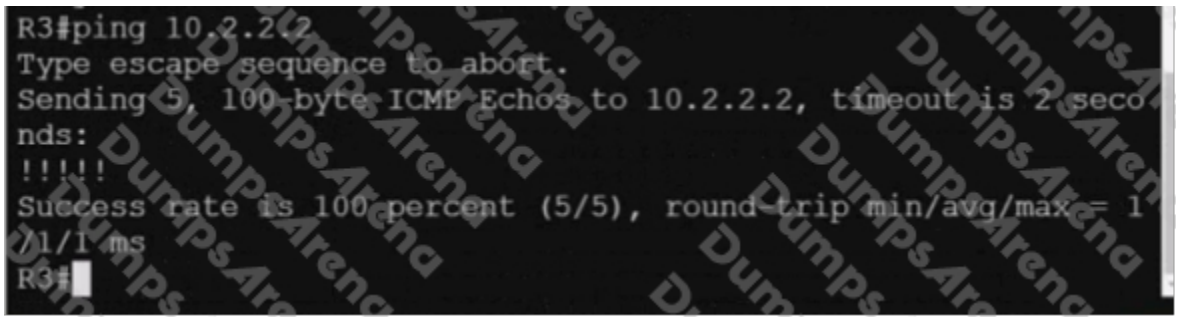
Router bgp 100

Neigh 10.1.1.1 remote-as 100

Neigh 10.1.1.1 update-source loopback 0

Copy run start

Verification:-

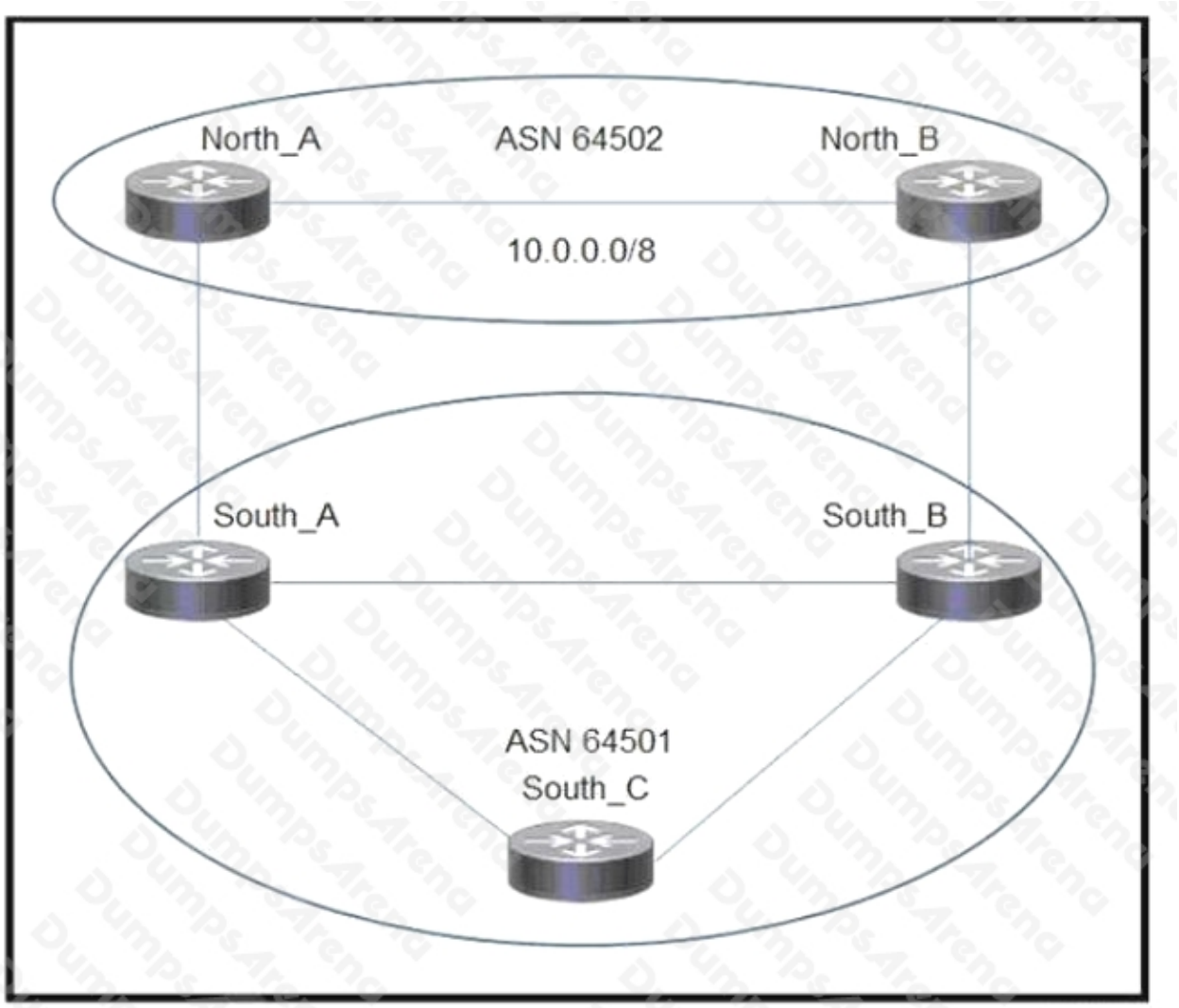


```
R3#show ip route
Codes: L - local, C - connected, S - static, R - RIP, M - mob
ile, B - BGP
       D - EIGRP, EX - EIGRP external, O - OSPF, IA - OSPF in
ter area
       N1 - OSPF NSSA external type 1, N2 - OSPF NSSA externa
l type 2
       E1 - OSPF external type 1, E2 - OSPF external type 2
       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 - NHR
P, l - LISP
       a - application route
       + - replicated route, % - next hop override, p - overr
ides from PfR

Gateway of last resort is not set

      10.0.0.0/32 is subnetted, 3 subnets
S        10.1.1.1 [1/0] via 172.20.2.1
B        10.2.2.2 [200/0] via 10.1.1.1, 00:00:19
C        10.3.3.3 is directly connected, Loopback0
      172.16.0.0/22 is subnetted, 1 subnets
B        172.16.100.0 [200/0] via 10.1.1.1, 00:00:02
      172.20.0.0/16 is variably subnetted, 3 subnets, 2 masks
B        172.20.1.0/24 [200/0] via 10.1.1.1, 00:00:19
C        172.20.2.0/24 is directly connected, Ethernet0/1
L        172.20.2.3/32 is directly connected, Ethernet0/1
R3#
```

QUESTION NO: 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

ANSWER: D

QUESTION NO: 12

While configuring Cisco NSF awareness, a network engineer enters the bgp graceful-restart command after the BGP session is established in a router that runs IOS XE Software. Graceful restart capabilities are not exchanged. Which two actions should be taken? (Choose two.)

A. Reload the router

B. Verity that BGP route dampening is configured

C. Reduce BGP convergence time

D. Issue the clear ip bgp * command

E. Issue the show ip bgp neighbors command.

ANSWER: A D

Explanation:

Reference: https://www.cisco.com/c/en/us/td/docs/ios-xml/ios/iproute_bgp/configuration/xe-16/irg-xe-16-book/bgp-nonstop-forwarding-awareness.html

QUESTION NO: 13

Refer to the exhibit.

The extension header of the IPv6 header is ignored when which value is equal to zero?

A. Segments Left

B. Hdr Ext Len

C. Routing Type

D. Next Header

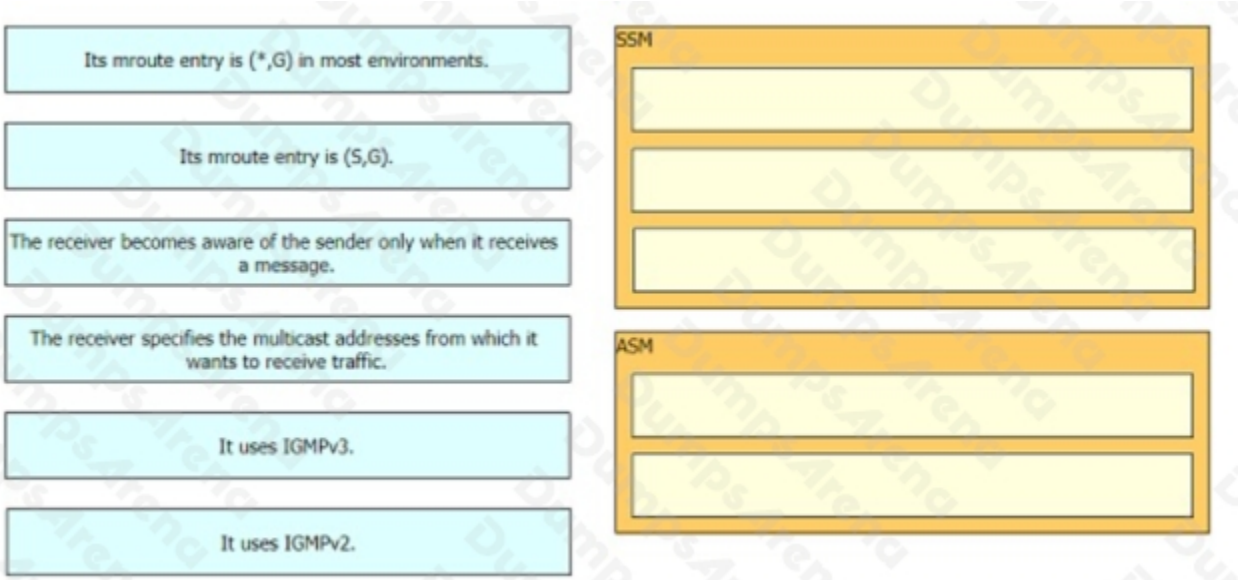
ANSWER: D

Explanation:

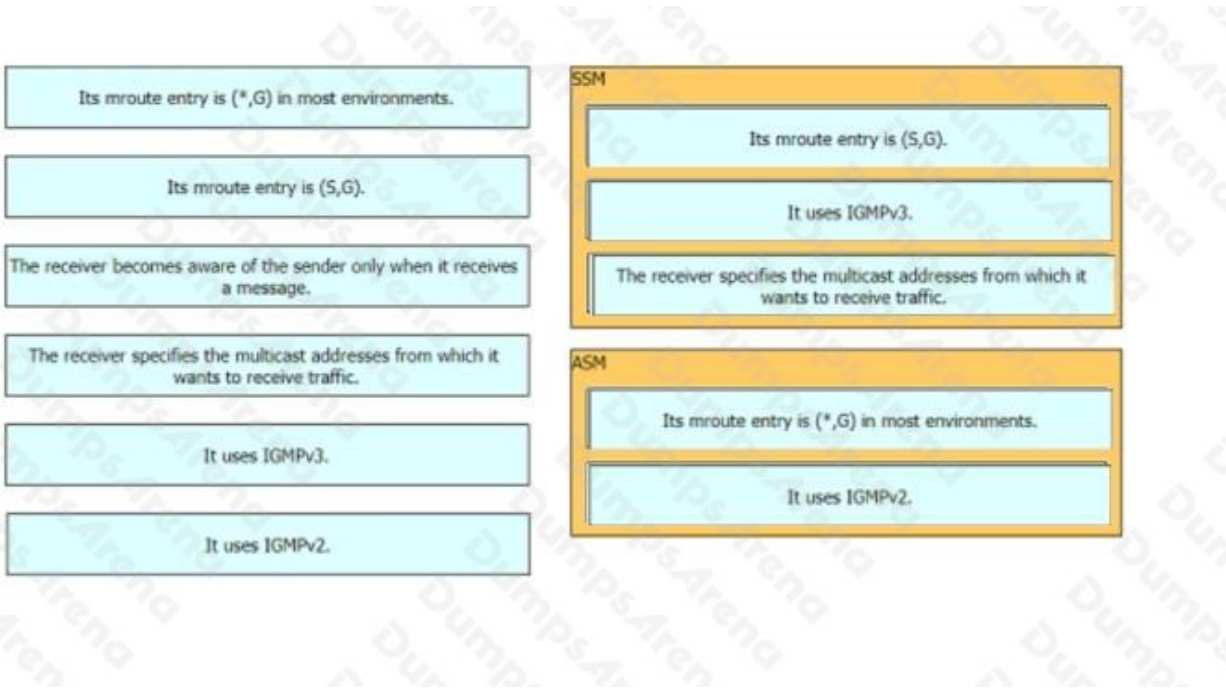
Reference: https://www.ciscopress.com/articles/article.asp?p=31948

QUESTION NO: 14 - (DRAG DROP)

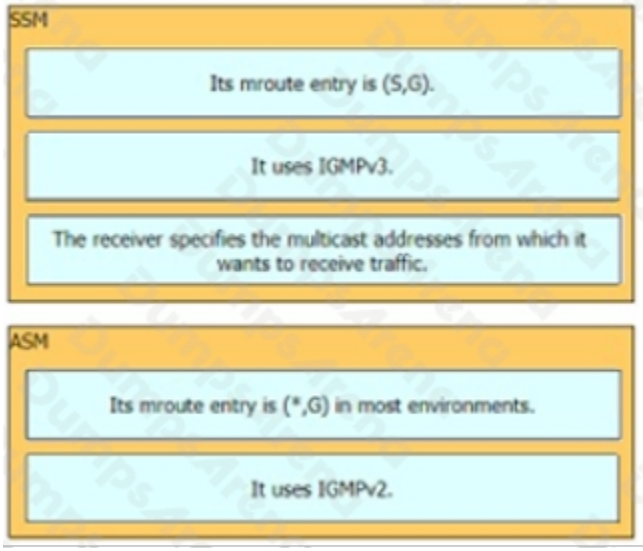
Drag and drop the features about multicast from the left onto the multicast protocols on the right. Not all options ate used.



ANSWER:

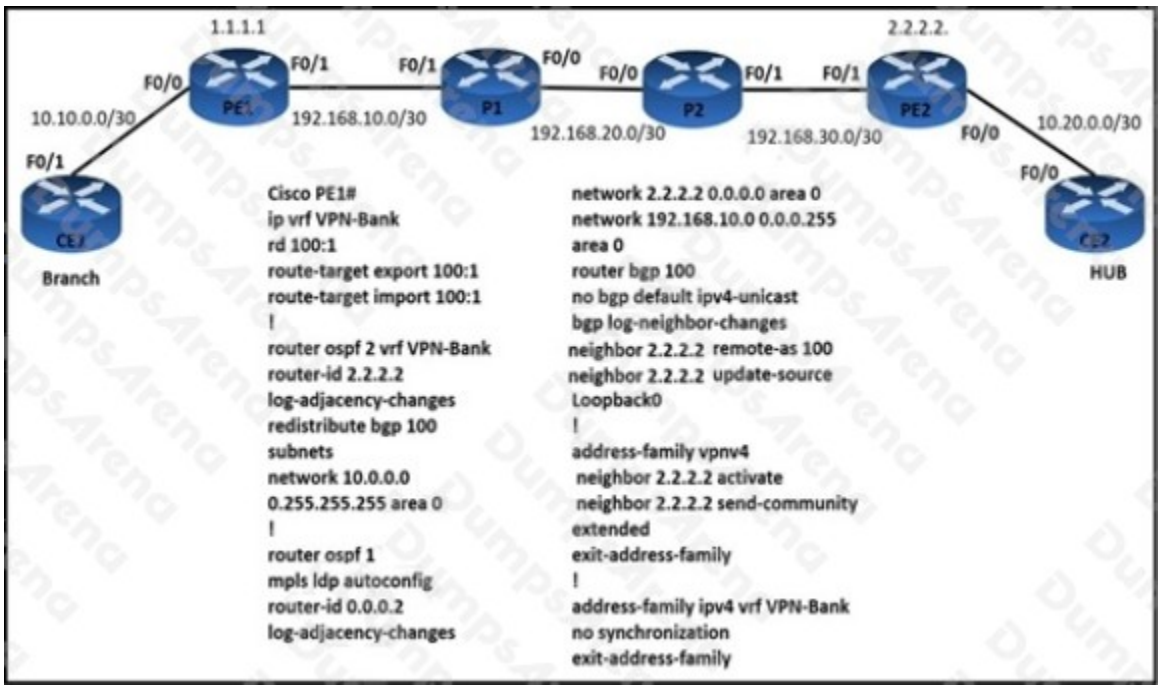


Explanation:



QUESTION NO: 15

Refer to the exhibit.



Customer traffic from the branch site to the hub is experiencing packet drops. The engineer verified that:

Which action resolves the issue?

A. Redistribute the CE1 OSPF routes in the PE1 VRF.

B. Redistribute the CE2 OSPF routes in the PE2 VRF.

C. Advertise the VPNv4 routes of the branch site in CE2.

D. Advertise the VPNv4 routes of the hub in CE1.

ANSWER: A