

## Juniper JN0-660 Exam Questions & Answers

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**EXAM**  
**soon**

## Juniper JN0-660 Exam Questions & Answers

**Exam Name:** Service Provider Routing and Switching, Professional

**For Full Set of Questions please visit:** <http://www.examsoon.com/JN0-660.htm>

## Examsoon

### QUESTION 1

Click the Exhibit button.

```
[edit]
user@host# run show route

inet.0: 7 destinations, 10 routes (6 active, 0 holddown, 3 hidden)
@ = Routing Use Only, # = Forwarding Use Only
+ = Active Route, - = Last Active, * = Both

10.10.10.0/30      * [Direct/0] 06:35:12
                  > via ge-1/0/0.0
10.10.10.2/32      * [Local/0] 06:35:12
                  Local via ge-1/0/0.0
10.10.56.0/30      * [Direct/0] 03:55:10
                  > via ge-1/0/1.0
10.10.56.2/32      * [Local/0] 03:55:10
                  Local via ge-1/0/1.0
192.168.56.1/32    @ [IS-IS/18] 00:00:05, metric 10
                  > to 10.10.56.1 via ge-1/0/1.0
                  # [RSVP/7/1] 00:00:00, metric 10
                  > to 10.10.56.1 via ge-1/0/1.0, label-switched-path to-r6
192.168.56.5/32    * [Direct/0] 02:06:50
                  > via lo0.0

inet.3: 1 destinations, 1 routes (1 active, 0 holddown, 0 hidden)
+ = Active Route, - = Last Active, * = Both

192.168.56.1/32    * [RSVP/7/1] 00:00:00, metric 10
                  > to 10.10.56.1 via ge-1/0/1.0, label-switched-path to-r6
```

Referring to the exhibit, which MPLS feature was used to make the LSP the preferred path for internal routes?

- A. traffic engineering bgp-igp
- B. traffic engineering shortcuts
- C. traffic engineering mpls-forwarding
- D. install active

**Correct Answer: C**

**Section: (none)**

**Explanation**

**Explanation/Reference:**

Explanation:

### QUESTION 2

You are the administrator for a network that uses IBGP. As the network grows, you must examine options to support increased scale. Which two scaling options should you consider? (Choose two.)

- A. route reflection
- B. areas
- C. zones
- D. confederations

**Correct Answer:** BC

**Section:** (none)

**Explanation**

**Explanation/Reference:**

Explanation:

### QUESTION 3

You manage an MPLS network where the PE devices consist of multiple vendors. You are asked to conceal the MPLS topology for all LSPs. Which global configuration parameter will accomplish this?

- A. Configure no-decrement-ttl on the ingress router only.
- B. Configure no-propagate-ttl on the ingress router only.
- C. Configure no-decrement-ttl on all routers within the MPLS network.
- D. Configure no-propagate-ttl on all routers within the MPLS network.

**Correct Answer:** D

**Section:** (none)

**Explanation**

**Explanation/Reference:**

Explanation:

### QUESTION 4

In which two ways does VPLS populate the MAC table? (Choose two.)

- A. dynamically using BGP
- B. dynamically using the source MAC address on received frames
- C. dynamically using LDP
- D. statically using CLI

**Correct Answer:** BD

**Section:** (none)

**Explanation**

**Explanation/Reference:**

Explanation:

### QUESTION 5

Which CoS feature supports per-VLAN queuing and scheduling?



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- A. multilevel scheduling
- B. hierarchical scheduling
- C. tagged queuing
- D. per-instance queuing

**Correct Answer:** C

**Section: (none)**

**Explanation**

**Explanation/Reference:**

Explanation:

### QUESTION 6

Which two statements are true about OSPFv3? (Choose two.)

- A. OSPFv3 uses a 32-bit router ID to uniquely identify a node in the network.
- B. OSPFv3 uses a 128-bit router ID to uniquely identify a node in the network.
- C. OSPFv3 routes are always preferred over OSPFv2 routes for all traffic.
- D. OSPFv3 and OSPFv2 can be configured at the same time.

**Correct Answer: AD**

**Section: (none)**

**Explanation**

**Explanation/Reference:**

Explanation:

### QUESTION 7

Click the Exhibit button.

```
[edit]
user@host# show class-of-service
schedulers {
    voice {
        transmit-rate percent 40;
        priority strict-high;
    }
    critical {
        transmit-rate percent 25;
        priority high;
    }
    less-critical {
        transmit-rate percent 15;
        priority medium-high;
    }
    data {
        transmit-rate percent 10;
        priority medium-low;
    }
    left-over {
        transmit-rate percent 5;
        priority low;
    }
}
```

On your MX Series router, traffic using the critical scheduler is out of profile. All other data is currently in profile. Referring to the exhibit, which statement is correct?

- A. The critical queue is serviced before the less-critical queue.
- B. The critical queue is serviced after the left-over queue.

- C. The critical queue is serviced before the data queue.
- D. The critical queue is serviced before the voice queue.

**Correct Answer:** B

**Section:** (none)

**Explanation**

**Explanation/Reference:**

Explanation:

#### QUESTION 8

You are the administrator for a network that uses IS-IS as its IGP. As the network grows, you find that the protocol's default capabilities for setting metrics is limiting your options. Which feature can you implement to provide a larger range of metric configuration capabilities?

- A. extended metrics
- B. wide metrics
- C. expanded metrics
- D. full metrics

**Correct Answer:** B

**Section:** (none)

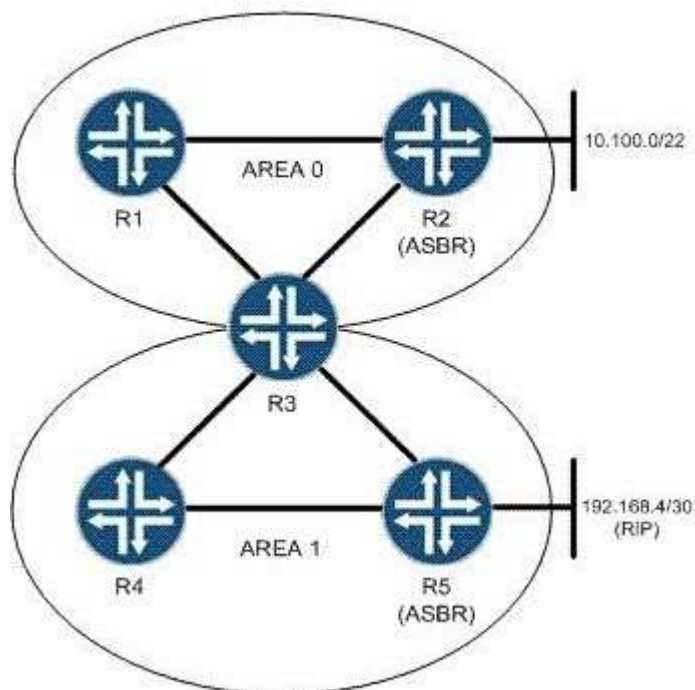
**Explanation**

**Explanation/Reference:**

Explanation:

#### QUESTION 9

Click the Exhibit button.



You are asked to configure an OSPF network based on the topology shown in the exhibit. You must keep the link-state database in Area 1 as small as possible. What will accomplish this?

- A. Area 0 should be configured as a stub area so that it will not announce routes into Area 1.
- B. Area 1 should be configured as an NSSA to limit the size of the link-state database.
- C. Area 1 should be configured as a stub area with no-summaries to limit the size of the link-state database.
- D. Area 0 should be configured with a virtual link to R4 to limit the size of the Area 1 link-state database.

**Correct Answer:** C

**Section:** (none)

**Explanation**

**Explanation/Reference:**

Explanation:

#### QUESTION 10

You are provisioning a new customer for access to your Layer 3 VPN. The customer is using 172.16.35.0/24 as their internal IP address space, which is also being used by an existing Layer 3 VPN customer. The two customers share many PE routers in common across your network. Which mechanism allows these duplicate addresses to exist in your network?

- A. route origin
- B. route target
- C. route refresh
- D. route distinguisher

**Correct Answer:** D

**Section:** (none)

**Explanation**

**Explanation/Reference:**

Explanation:

#### QUESTION 11

Click the Exhibit button.

```
192.168.56.1
  From: 192.168.56.5, LSPstate: Up, ActiveRoute: 0
  LSPname: Bypass->10.10.56.1
  LSPtype: Static Configured
  Suggested label received: -, Suggested label sent: -
  Recovery label received: -, Recovery label sent: 299840
  Resv style: 1 SE, Label in: -, Label out: 299840
  Time left: -, Since: Tue Feb 22 21:27:22 2011
  Tspec: rate 0bps size 0bps peak Infbps m 20 M 1500
  Port number: sender 1 receiver 18914 protocol 0
  Type: Bypass LSP
    Number of data route tunnel through: 0
    Number of RSVP session tunnel through: 0
  PATH rcvfrom: localclient
  Adspec: sent MTU 1500
  Path MTU: received 1500
  PATH sentto: 10.10.10.9 (ge-1/0/2.0) 2 pkts
  RESV rcvfrom: 10.10.10.9 (ge-1/0/2.0) 2 pkts
  Explot route: 10.10.10.9 10.10.10.6
  Record route: <self> 10.10.10.9 10.10.10.6
```

Referring to the exhibit, which type of traffic protection mechanism is used for the LSP?

- A. fast-reroute
- B. link-protection
- C. node-link-protection
- D. secondary

**Correct Answer:** B

**Section:** (none)

**Explanation**

**Explanation/Reference:**

Explanation:

#### **QUESTION 12**

Which operational mode command displays the number of configured forwarding classes?

- A. show interfaces queue ge-1/0/0
- B. show interfaces terse
- C. show class-of-service interface
- D. show forwarding classes

**Correct Answer:** A

**Section:** (none)

**Explanation**

**Explanation/Reference:**

Explanation:

#### **QUESTION 13**

Your OSPF network includes an NSSA. Which LSA type is injected into the NSSA by the ASBR?

- A. Type 3
- B. Type 5
- C. Type 7
- D. Type 9

**Correct Answer:** A

**Section:** (none)

**Explanation**

**Explanation/Reference:**

Explanation:

#### **QUESTION 14**

Click the Exhibit button.

```
user@router# run show class-of-service rewrite-rule name traffic-class
Rewrite rule: traffic-class, Code point type: exp, Index: 58855
Forwarding class      Loss priority  Code point
best-effort           low           000
best-effort           high          001
expedited-forwarding  low           111
expedited-forwarding  high          011
assured-forwarding    low           100
assured-forwarding    high          101
network-control       low           110
network-control       high          111
```

Your router should be configured with a rewrite rule which alters the default behavior of expedited- forwarding as shown in the exhibit. Which configuration is correct?

- A. Option A
- B. Option B
- C. Option C
- D. Option D

**Correct Answer:** A

**Section:** (none)

**Explanation**

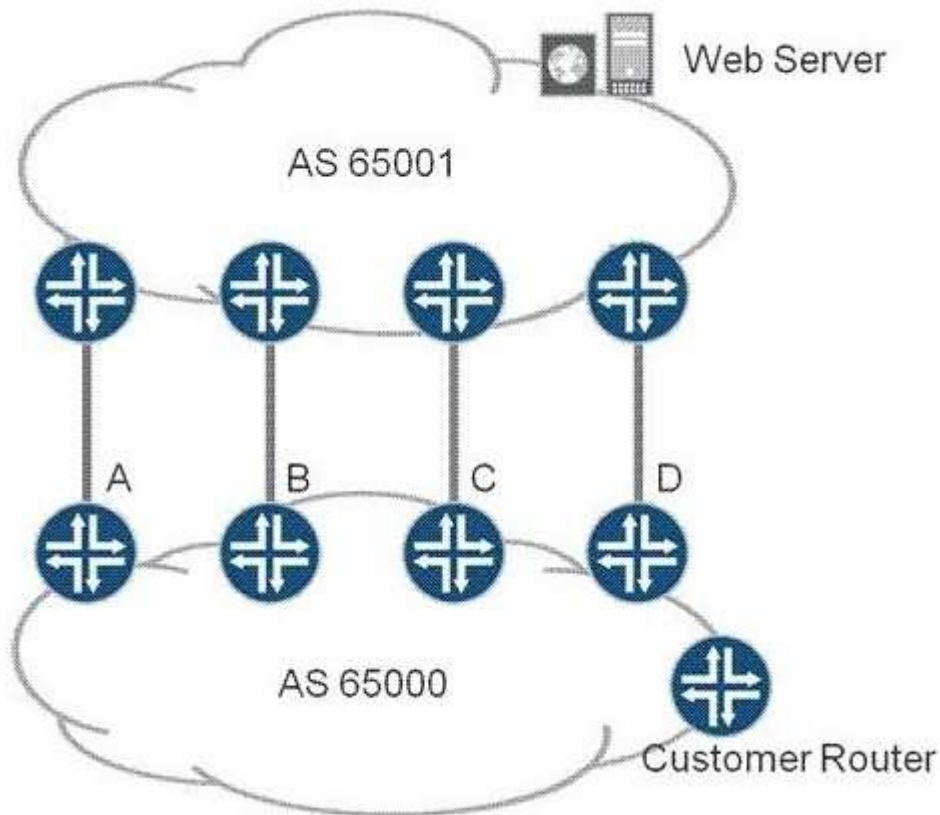
**Explanation/Reference:**

Explanation:

#### QUESTION 15

Click the Exhibit button.





You are the administrator of AS 65000. In the exhibit, there are four links between your network (AS 65000) and your upstream provider (AS 65001).

You have an export policy on all of your routers to advertise your routes such that:

Router A: MED 100, AS Path (65000), Origin 1

Router B: MED 100, AS Path (65000 65000), Origin 0

Router C: MED 50, AS Path (65000 65000), Origin 1

Router D: MED 50, AS Path (65000), Origin 0

Through which link will traffic from the Web server enter your network (AS 65000)?

- A. Router A
- B. Router B
- C. Router C
- D. Router D

**Correct Answer:** D

**Section:** (none)

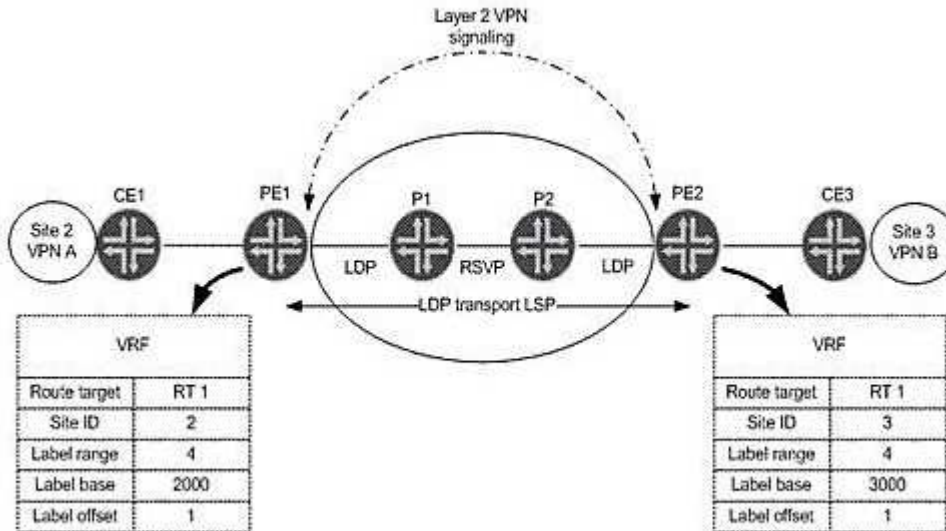
**Explanation**

**Explanation/Reference:**

Explanation:

**QUESTION 16**

Click the Exhibit button.



In the exhibit, on which label value does PE1 expect to receive traffic from CE3 for VPN A?

- A. 2002
- B. 3001
- C. 3002
- D. 2001

**Correct Answer:** A

**Section:** (none)

**Explanation**

**Explanation/Reference:**

Explanation:

#### QUESTION 17

Which two statements correctly describe BGP operation? (Choose two.)

- A. IBGP does not advertise routes learned from other IBGP neighbors.
- B. IBGP advertises routes learned from other IBGP neighbors.
- C. EBGP advertises routes learned from other IBGP or EBGP neighbors.
- D. EBGP does not advertise routes learned from other EBGP neighbors.

**Correct Answer:** AC

**Section:** (none)

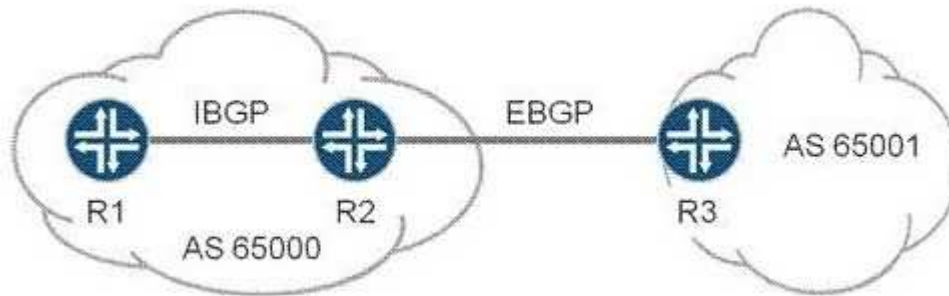
**Explanation**

**Explanation/Reference:**

Explanation:

#### QUESTION 18

Click the Exhibit button.



The exhibit contains a BGP topology. R1 and R2 are peering using IBGP. R2 and R3 are peering with EBGP. R1 is not installing any routes from R3 due to next-hop resolution issues. Which two configurations will resolve this issue? (Choose two.)

- A. Use a policy to advertise the loopback on R2 into the IGP.
- B. Advertise the R2-R3 subnet into the IGP.
- C. Configure advertise-inactive on the IBGP peering session on R2.
- D. Configure next-hop self on the IBGP peering session on R2.

**Correct Answer:** BD

**Section:** (none)

**Explanation**

**Explanation/Reference:**

Explanation:

#### QUESTION 19

Click the Exhibit button.

```

[edit]
user@R4# run show isis database
IS-IS level 1 link-state database:
LSP ID                Sequence  Checksum  Lifetime  Attributes
R4.00-00              0x4      0xe888    1154     L1 L2
R3.00-00              0x3      0x2ce1    1150     L1 L2
R3.02-00              0x2      0x46c7    1150     L1 L2
  3 LSPs

IS-IS level 2 link-state database:
LSP ID                Sequence  Checksum  Lifetime  Attributes
R4.00-00              0x5      0xee7d    1154     L1 L2
R3.00-00              0x4      0xed1f    1150     L1 L2
R3.02-00              0x3      0x44c8    1151     L1 L2
  3 LSPs

[edit]
user@R4#

```

Based on the output shown in the exhibit, which statement is correct?

- A. R3 is the designated intermediate system.
- B. R3 is the backup designated intermediate system.

- C. R3 has been configured with an export policy and is announcing external routes to IS-IS neighbors.
- D. R3 is using both IPv4 and IPv6 resulting in two pseudonodes.

**Correct Answer:** A

**Section:** (none)

**Explanation**

**Explanation/Reference:**

Explanation:

#### QUESTION 20

Click the Exhibit button.

```
user@router# show
traffic-control-profiles {
  L3-unit-profile {
    scheduler-map "sched-map-example;";
    shaping-rate 30m;
    guaranteed-rate 20m;
  }
}
interfaces {
  ge-0/1/1 {
    output-traffic-control-profile "l1-port-profile;";
    unit 100 {
      output-traffic-control-profile L3-unit-profile;
    }
  }
}
```

What would happen if the guaranteed-rate command is removed from the configuration shown in the exhibit?

- A. The logical interface gets a minimal bandwidth reservation.
- B. The minimum-rate command should be configured instead.
- C. The logical interface receives no bandwidth constraints.
- D. The transmit-rate command should be configured instead.

**Correct Answer:** A

**Section:** (none)

**Explanation**

**Explanation/Reference:**

Explanation:

#### QUESTION 21

Which statement is true about ASM and/ or SSM multicast?

- A. ASM requires an external mechanism to find the source.
- B. SSM only builds RPT trees, since the RP is replaced by an external mechanism.
- C. ASM and SSM for IPv6 multicast use embedded RP.
- D. SSM does not require MSDP.

**Correct Answer:** D

**Section:** (none)

## Explanation

### Explanation/Reference:

Explanation:

### QUESTION 22

Click the Exhibit button.

```
user@router> monitor traffic detail interface so-0/1/0 size 1514
Listening on so-0/1/0
11:55:48.470418 In ISIS(186), 30:30:30:30:30:30 > 30:30:30:30:30:30, hlen: 27, v: 1,
  sys-id-len: 6 (0), max-area: 3 (0), L2 LSP
  lsp-id: 1921.6804.8001.00-00, seq: 0x00000008, lifetime: 1189s
  checksum: 0x86c9 (correct), PDU length: 186, L1L2 IS
  Area address(es) TLV #1, length: 4
    Area address (3): 49.0001
  Protocols supported TLV #129, length: 2
    NLPID(s): IPv4, IPv6
  Traffic Engineering Router ID TLV #134, length: 4
    Traffic Engineering Router ID: 192.168.48.1
  IPv4 Interface address(es) TLV #132, length: 4
    IPv4 interface address: 192.168.48.1
  Hostname TLV #137, length: 8
    Hostname: SaoPaulo
  IPv4 Internal reachability TLV #128, length: 24
    IPv4 prefix: 192.168.48.1/32
      Default Metric: 00, Internal, Distribution: up
    IPv4 prefix: 10.222.60.0/24
      Default Metric: 10, Internal, Distribution: up
  Extended IPv4 reachability TLV #135, length: 17
    IPv4 prefix: 192.168.48.1/32
      Metric: 0, Distribution: up, no sub-TLVs present
    IPv4 prefix: 10.222.60.0/24
      Metric: 10, Distribution: up, no sub-TLVs present
  IPv4 External reachability TLV #130, length: 12
    IPv4 prefix: 192.168.49.0/24
      Default Metric: 00, Internal, Distribution: up
  Extended IPv4 reachability TLV #135, length: 8
    IPv4 prefix: 192.168.49.0/24
      Metric: 0, Distribution: up, no sub-TLVs present
  IS Reachability TLV #2, length: 12
    IsNotVirtual
    IPv4 prefix: 192.168.49.0/24
      Default Metric: 00, Internal, Distribution: up
  Extended IPv4 reachability TLV #135, length: 8
    IPv4 prefix: 192.168.49.0/24
      Metric: 0, Distribution: up, no sub-TLVs present
  IS Reachability TLV #2, length: 12
    IsNotVirtual
    IS Neighbor: 1921.6805.2001.00, Default Metric: 10, Internal
  Extended IS Reachability TLV #22, length: 23
    IS Neighbor: 1921.6805.2001.00, Metric: 10, sub-TLVs present (12)
      IPv4 interface address: 10.222.60.2
      IPv4 neighbor address: 10.222.60.1
  Authentication TLV #10, length: 17
    HMAC-MD5 password: 00bb32fd7712bcea6003e516e2333077
```

The output in the exhibit was captured on an interface. Which three statements are true about the configuration on the router with hostname SaoPaulo? (Choose three.)

A. Wide metrics is not in use.

- B. The router has the overload bit set to "on".
- C. Authentication is enabled.
- D. System ID is 1921.6805.2001.
- E. Level 2 routing is enabled.

**Correct Answer:** ACE

**Section:** (none)

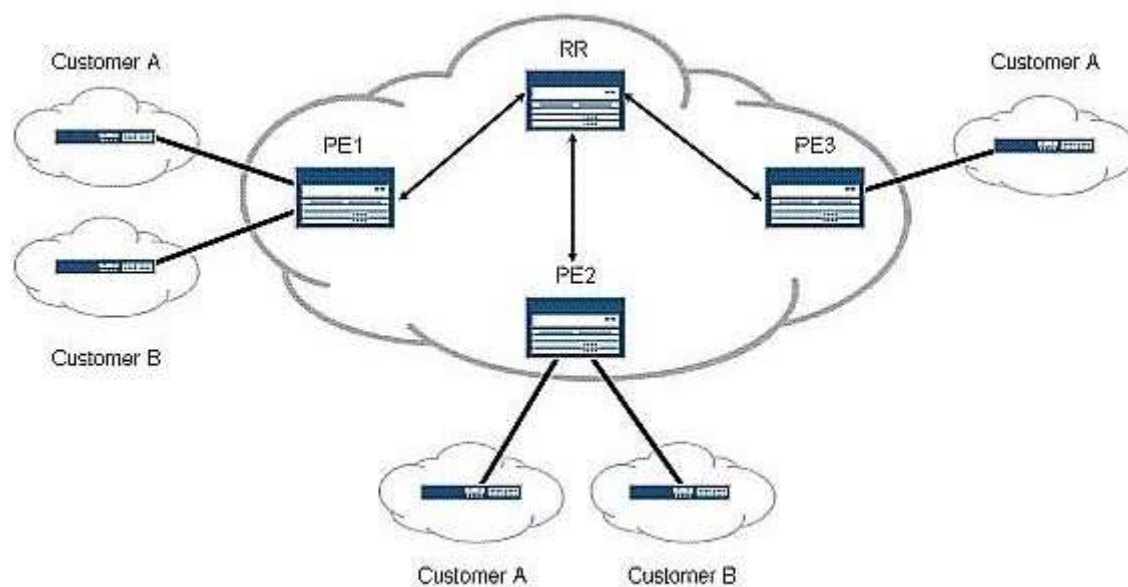
**Explanation**

**Explanation/Reference:**

Explanation:

### QUESTION 23

Click the Exhibit button.



Referring to the exhibit, you want to save CPU processing load on the PE3 router by preventing the reception of routes belonging to Customer B. Which Layer 3 VPN scaling mechanism provides this functionality?

- A. route origin
- B. route refresh
- C. route reflection
- D. route target filtering

**Correct Answer:** D

**Section:** (none)

**Explanation**

**Explanation/Reference:**

Explanation:

### QUESTION 24

What is a limitation of LDP?

- A. Traffic must follow explicitly configured paths.

- B. It requires a full mesh of LSPs throughout the network.
- C. It requires a traffic engineering database (TED).
- D. It does not support traffic engineering.

**Correct Answer:** C

**Section:** (none)

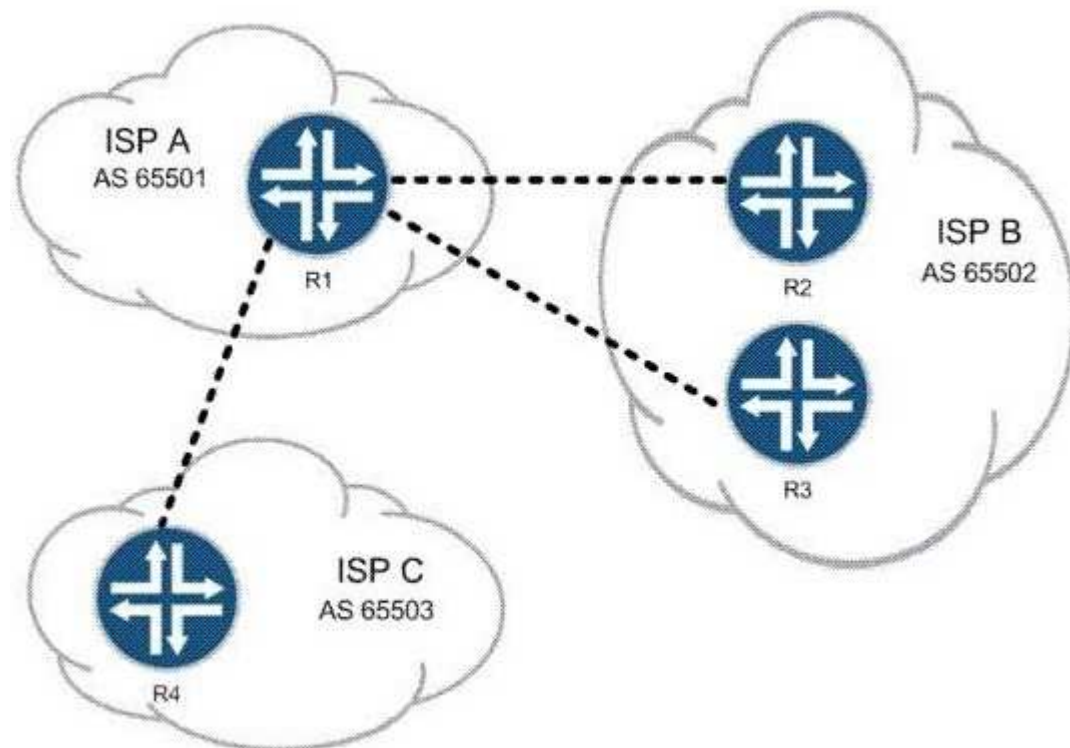
**Explanation**

**Explanation/Reference:**

Explanation:

#### QUESTION 25

Click the Exhibit button.



You work for ISP A. Customers of both ISP B and ISP C must be able to reach all of your customers, but your network must not allow transit traffic between ISP B and ISP C. Referring to the exhibit, which two methods could you use? (Choose two.)

- A. Use local preference to prefer the proper routes.
- B. Use the well-known no-transit community.
- C. Use policy to filter routes on AS number.
- D. Use communities to identify and filter routes.

**Correct Answer:** CD

**Section:** (none)

**Explanation**

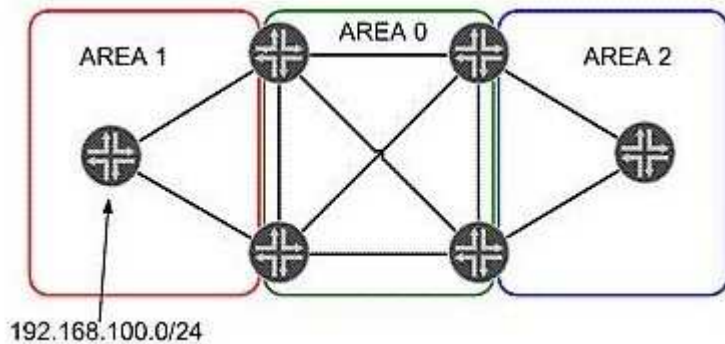
**Explanation/Reference:**

Explanation:



### QUESTION 26

Click the Exhibit button.



In the exhibit, Area 1 and Area 2 are configured as not-so-stubby areas. RIP network 192.168.100.0/24 is redistributed into OSPF in Area 1. Which three statements are true? (Choose three.)

- A. Network 192.168.100.0/24 is advertised in a Type 7 LSA in Area 1.
- B. Network 192.168.100.0/24 is advertised in a Type 7 LSA in Area 0.
- C. Network 192.168.100.0/24 is advertised in a Type 5 LSA in Area 0.
- D. The area border router between Area 0 and Area 2 converts network 192.168.100.0/24 to a Type 7 LSA.
- E. Area 2 does not see the network 192.168.100.0/24 in its link-state database.

**Correct Answer:** ACE

**Section:** (none)

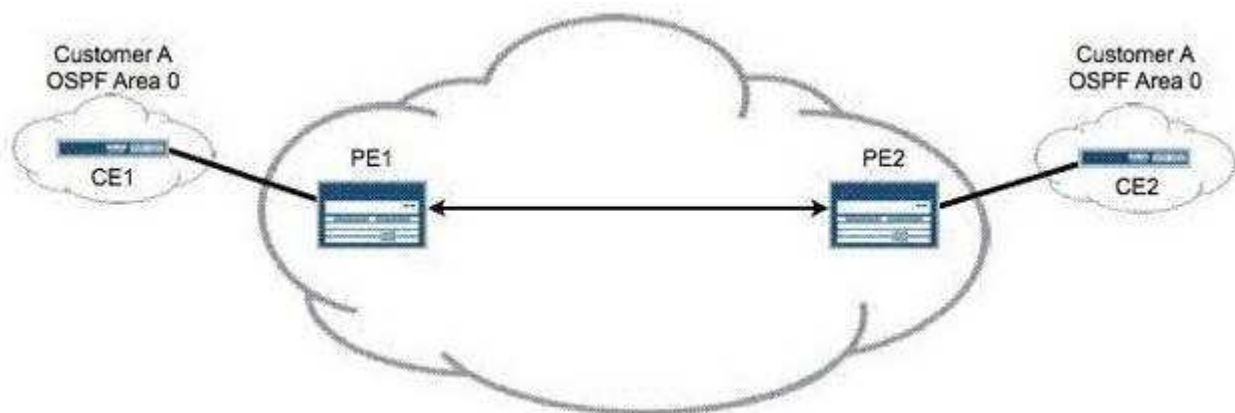
**Explanation**

**Explanation/Reference:**

Explanation:

### QUESTION 27

Click the Exhibit button.



Referring to the exhibit, your network management systems have alerted you to a loss of connectivity to the CE2 router in your Layer 3 VPN. The loopback address of the CE router is 10.10.1.1/32. Which operational command on PE2 verifies connectivity across the PE-CE link?

- A. ping 10.10.1.1
- B. ping 10.10.1.1 table customer-a



- C. ping 10.10.1.1 instance customer-a
- D. ping 10.10.1.1 routing-instance customer-a

**Correct Answer:** D

**Section:** (none)

**Explanation**

**Explanation/Reference:**

Explanation:

#### QUESTION 28

Click the Exhibit button.

```
[edit]
root@R4# run show isis database
IS-IS level 1 link-state database:
LSP ID                Sequence Checksum Lifetime Attributes
R4.00-00                0x2      0xcfb3      1072 L1 L2
R3.00-00                0x3      0xf316      1192 L1 L2 Overload
R3.02-00                0x2      0xc17e      1192 L1 L2
  3 LSPs

IS-IS level 2 link-state database:
LSP ID                Sequence Checksum Lifetime Attributes
R4.00-00                0x2      0x4baa      1073 L1 L2
  1 LSPs
```

Based on the output in the exhibit, which statement is correct?

- A. R4 has been configured with an IS-IS export policy and is announcing external routing information.
- B. R3 and R4 have an adjacency at both level 1 and level 2.
- C. R3 has been configured so that it is not used for transit traffic.
- D. R3 and R4 are both attached to other IS-IS areas.

**Correct Answer:** C

**Section:** (none)

**Explanation**

**Explanation/Reference:**

Explanation:

#### QUESTION 29

You are evaluating a routing policy for an ISP and you find the `^42+ . * (23|9)$` regular expression. Which three AS paths match the regular expression? (Choose three.)

- A. 42 42 42 42 9
- B. 42 42 23 500
- C. 42 42 42 60 9
- D. 42 60 23 9 42
- E. 42 69 500 23

**Correct Answer:** ACE

**Section:** (none)

**Explanation**

**Explanation/Reference:**

Explanation:

**QUESTION 30**

Click the Exhibit button.

```
user@PE2> show l2circuit connections
Layer-2 Circuit Connections:
```

Legend for connection status (St)

EI -- encapsulation invalid	NP -- interface h/w not present
MM -- mtu mismatch	Dn -- down
EM -- encapsulation mismatch	VC-Dn -- Virtual circuit Down
CM -- control-word mismatch	Up -- operational
VM -- vlan id mismatch	CF -- Call admission control failure
OL -- no outgoing label	IB -- TDM incompatible bitrate
NC -- intf encaps not CCC/TOC	TM -- TDM misconfiguration
BK -- Backup Connection	ST -- Standby Connection
CB -- rcvd cell-bundle size bad	SP -- Static Pseudowire
LD -- local site signaled down	RS -- remote site standby
RD -- remote site signaled down	XX -- unknown

Legend for interface status

Up -- operational

Dn -- down

Neighbor: 192.168.7.1

Interface	Type	St	Time last up	# Up trans
ge-1/0/0.600(vc 5)	rmt	EM		

```
user@PE1> show ldp database session 192.168.7.1
```

Input label database, 192.168.5.1:0--192.168.7.1:0

Label	Prefix
299792	192.168.5.1/32
299776	192.168.6.1/32
3	192.168.7.1/32
299824	L2CKT CtrlWord ETHERNET VC 5

Output label database, 192.168.5.1:0--192.168.7.1:0

Label	Prefix
3	192.168.5.1/32
299776	192.168.6.1/32
299792	192.168.7.1/32
299808	L2CKT CtrlWord VLAN VC 5

Customer A is complaining that CE1 and CE2 cannot form an OSPF adjacency across your LDP Layer 2 circuit. The physical topology of the network is CE1-PE1-P-PE2-CE2. PE1's loopback is 192.168.5.1, P's loopback is 192.168.6.1, and PE2's loopback is 192.168.7.1. Referring to the output in the exhibit, what is the problem?

- A. mismatched virtual circuit ID values
- B. mismatched interface encapsulations
- C. incorrect PE-CE interface configuration
- D. extended LDP neighbor not established

**Correct Answer: B**  
**Section: (none)**  
**Explanation**

**Explanation/Reference:**  
Explanation:

### QUESTION 31

Click the Exhibit button.

```
192.168.56.1
  From: 192.168.56.5, LSPstate: Up, ActiveRoute: 0
  LSPname: to-r6, LSPpath: Primary
  LSPtype: Static Configured
  Suggested label received: -, Suggested label sent: -
  Recovery label received: -, Recovery label sent: 3
  Resv style: 1 FF, Label in: -, Label out: 3
  Time left: -, Since: Tue Feb 22 21:38:36 2011
  Tspec: rate 0bps size 0bps peak Infbps m 20 M 1500
  Port number: sender 1 receiver 18916 protocol 0
  FastReroute desired
  PATH rcvfrom: localclient
  Adspec: sent MTU 1500
  Path MTU: received 1500
  PATH sentto: 10.10.56.1 (ge-1/0/1.0) 7 pkts
  RESV rcvfrom: 10.10.56.1 (ge-1/0/1.0) 5 pkts
  Explt route: 10.10.56.1
  Record route: <self> 10.10.56.1
  Detour is Up
  Detour Tspec: rate 0bps size 0bps peak Infbps m 20 M 1500
  Detour adspec: sent MTU 1500
  Path MTU: received 1500
  Detour PATH sentto: 10.10.10.9 (ge-1/0/2.0) 4 pkts
  Detour RESV rcvfrom: 10.10.10.9 (ge-1/0/2.0) 3 pkts
  Detour Explt route: 10.10.10.9 10.10.10.6
  Detour Record route: <self> 10.10.10.9 10.10.10.6
  Detour Label out: 299856
```

Referring to the exhibit, which type of traffic protection mechanism is used for the LSP?

- A. link-protection
- B. fast-reroute
- C. node-link-protection
- D. bypass

**Correct Answer: B**  
**Section: (none)**  
**Explanation**

**Explanation/Reference:**  
Explanation:

### QUESTION 32

Click the Exhibit button.

```
user@R5# run show bgp neighbor
Peer: 192.168.56.1+179 AS 65000 Local: 192.168.56.5+56710 AS 65000
  Type: Internal      State: Established      Flags: <Sync>
  Last State: OpenConfirm  Last Event: RecvKeepAlive
  Last Error: Open Message Error
  Options: <Preference LocalAddress Refresh>
  Local Address: 192.168.56.5 Holdtime: 90 Preference: 170
  Number of flaps: 1
  Last flap event: RecvNotify
  Error: 'Open Message Error' Sent: 2 Recv: 0
  Error: 'Cease' Sent: 0 Recv: 1
  Peer ID: 192.168.56.1      Local ID: 192.168.56.5      Active Holdtime: 90
  Keepalive Interval: 30      Peer index: 0
  BFD: disabled, down
  NLRI for restart configured on peer: inet-unicast
  NLRI advertised by peer: inet-unicast inet6-unicast
  NLRI for this session: inet-unicast
  Peer supports Refresh capability (2)
  Restart time configured on the peer: 120
  Stale routes from peer are kept for: 300
  Restart time requested by this peer: 120
  NLRI that peer supports restart for: inet-unicast inet6-unicast
  NLRI that restart is negotiated for: inet-unicast
  NLRI of received end-of-rib markers: inet-unicast
  NLRI of all end-of-rib markers sent: inet-unicast
  Peer supports 4 byte AS extension (peer-as 65000)
  Peer does not support Addpath
  Table inet.0 Bit: 10000
    RIB State: BGP restart is complete
    Send state: in sync
    Active prefixes:          0
    Received prefixes:        0
    Accepted prefixes:        0
    Suppressed due to damping: 0
    Advertised prefixes:      0
  Last traffic (seconds): Received 4      Sent 4      Checked 4
  Input messages:  Total 3      Updates 1      Refreshes 0      Octets 101
  Output messages: Total 7      Updates 0      Refreshes 0      Octets 284
  Output Queue[0]: 0
```

The exhibit shows the output of a Junos show bgp neighbor command. Which two statements are true? (Choose two.)

- A. IPv4 routes will be exchanged over this session.
- B. IPv6 routes will be exchanged over this session.
- C. The local router initiated the BGP session.
- D. BFD keepalive is configured to 30 seconds.

**Correct Answer:** AC

**Section:** (none)

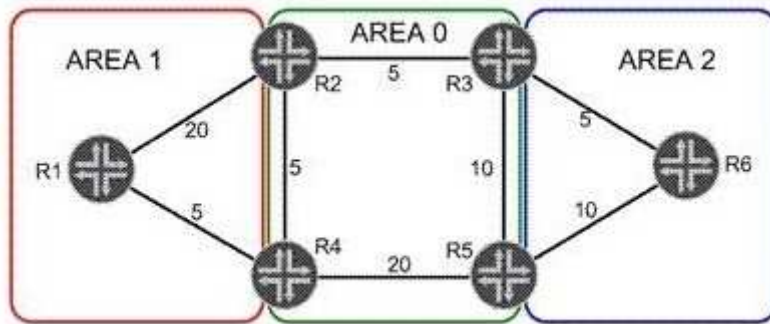
**Explanation**

**Explanation/Reference:**

Explanation:

### QUESTION 33

Click the Exhibit button.



Referring to the OSPF link metrics in the exhibit, which path will traffic from R6 take to reach R1?

- A. R6, R3, R2, R4, R1
- B. R6, R3, R2, R1
- C. R6, R5, R4, R1
- D. R6, R5, R3, R2, R4, R1

**Correct Answer: B**

**Section: (none)**

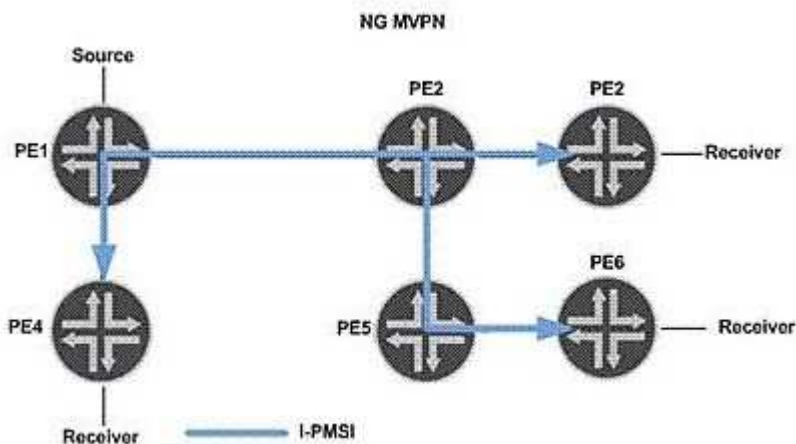
**Explanation**

**Explanation/Reference:**

Explanation:

### QUESTION 34

Click the Exhibit button.



A customer is using the Layer 3 VPN multicast technology shown in the exhibit. Which statement is true?

- A. PE6 sends a BGP NG-MVPN NLRI Type 5 message upon receiving a \*,G join on its VRF interface.
- B. PE6 sends a BGP NG-MVPN NLRI Type 7 message upon receiving an S,G join on its VRF interface.
- C. The P2MP sub LSP reduces the traffic load on the interface between PE2 and PE5.
- D. PE6 signals PE2 through MBGP to include the I-PMSI tree on its P2MP sub LSP.

**Correct Answer:** B  
**Section:** (none)  
**Explanation**

**Explanation/Reference:**  
Explanation:

**QUESTION 35**

In an interdomain multicast deployment scenario, an RP1 is in AS1 and an RP2 is in AS2. MSDP is configured between RP1 and RP2. In which routing table on RP1 are source-active messages (SAs) received from RP2 by default?

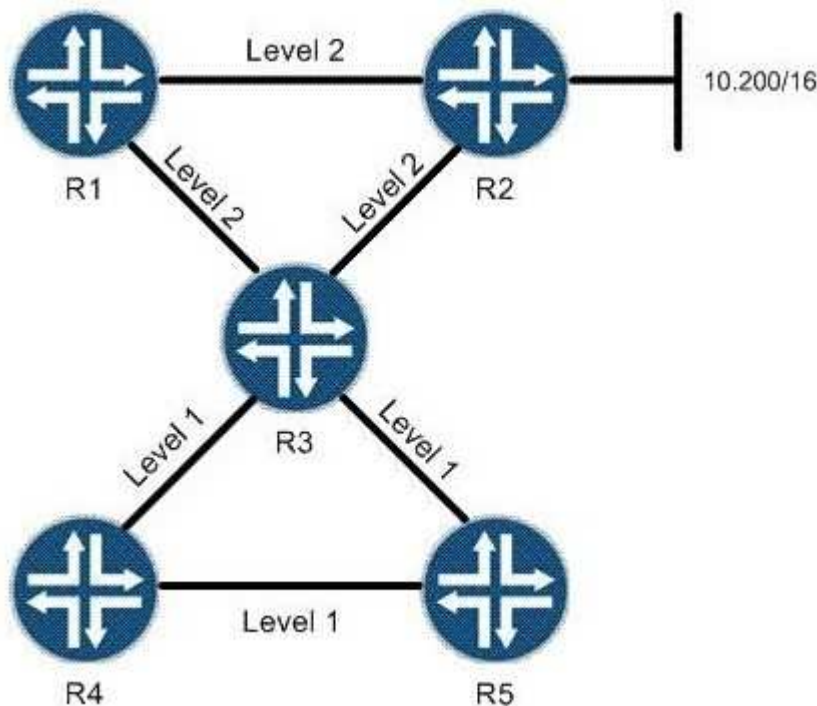
- A. inet.0
- B. inet.2
- C. inet.1
- D. inet.4

**Correct Answer:** D  
**Section:** (none)  
**Explanation**

**Explanation/Reference:**  
Explanation:

**QUESTION 36**

Click the Exhibit button.



R2 is announcing the 10.200/16 network to its IS-IS neighbors. No routing policies have been applied to R3. Referring to the exhibit, will R5 have 10.200/16 as an IS-IS route?

- A. Yes; IS-IS level 2 externals are passed from level 2 to level 1 by default.
- B. No; IS-IS level 2 externals are only passed to level 1 if wide-metrics-only is configured on all routers.

- C. Yes; all level 2 routing information is shared throughout an IS-IS domain by default.
- D. No; IS-IS does not announce routes from level 2 to level 1 unless a routing policy is applied.

**Correct Answer:** D

**Section:** (none)

**Explanation**

**Explanation/Reference:**

Explanation:

#### **QUESTION 37**

You are facing BGP scaling issues and decide to add dedicated route reflectors to your network. You notice that VPN routes are not being advertised by your route reflectors. Which three actions can you take to solve this? (Choose three.)

- A. Add a static default route to inet.3 and/or inet6.3 on the route reflectors.
- B. Add a full mesh of MPLS LSPs between all of the route reflectors.
- C. Add MPLS LSPs between the route reflectors and their client routers.
- D. Add a static default route to inet.3 and/or inet6.3 on all of the client routers.
- E. Use rib-groups to add IGP routes to inet.3 and/or inet6.3 on the route reflectors.

**Correct Answer:** ACE

**Section:** (none)

**Explanation**

**Explanation/Reference:**

Explanation:

#### **QUESTION 38**

An OSPF network has been designed with multiple areas to improve scalability. Which two statements are true? (Choose two.)

- A. Each router in the OSPF network runs the shortest-path-first algorithm to determine paths through the network.
- B. The Area Border Router for each area runs the shortest-path-first algorithm and floods its results through the area.
- C. Each area must have at least one link connecting it to each of the other areas of the OSPF network.
- D. OSPF provides loop-free routing within an OSPF routing domain, but does not guarantee symmetrical routing.

**Correct Answer:** AD

**Section:** (none)

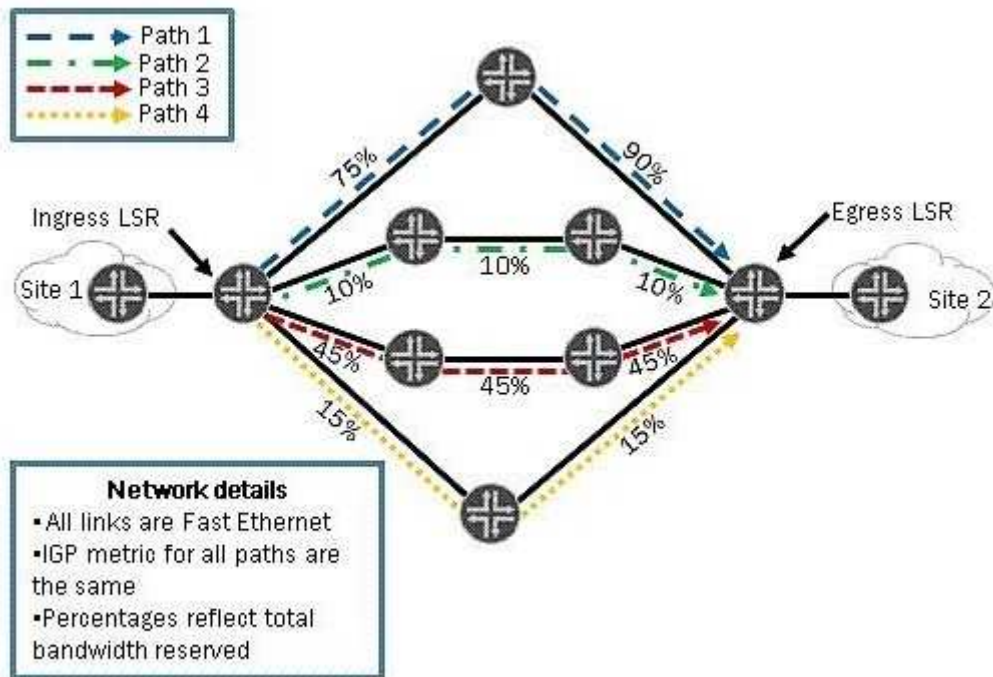
**Explanation**

**Explanation/Reference:**

Explanation:

#### **QUESTION 39**

Click the Exhibit button.



You have an MPLS network and you have configured most-fill as a CSPF tiebreaker. Using the information in the exhibit, which path will be used to signal a new LSP requiring 12 Mbps?

- A. Path 1
- B. Path 2
- C. Path 3
- D. Path 4

**Correct Answer:** D

**Section:** (none)

**Explanation**

**Explanation/Reference:**

Explanation:

#### QUESTION 40

Which two configuration parameters are required to configure a BGP-signaled VPLS service? (Choose two.)

- A. vpls-id
- B. site-identifier
- C. route-distinguisher
- D. site-address

**Correct Answer:** BC

**Section:** (none)

**Explanation**

**Explanation/Reference:**

Explanation:

#### QUESTION 41



Click the Exhibit button.

```
user@router# show routing-options multicast
scope 1 {
  prefix 224.0.1.39/32;
  interface fe-0/0/0.0;
}
```

Referring to the exhibit, which statement is correct?

- A. Only multicasts packets (224.0.1.39) are allowed on the input and output direction.
- B. Auto-RP discovery messages are filtered in the input and output direction.
- C. Rendezvous point announcements are filtered in the output direction.
- D. This filter does not work because the input or output parameter is missing.

**Correct Answer: C**

**Section: (none)**

**Explanation**

**Explanation/Reference:**

Explanation:

#### **QUESTION 42**

What are three Junos automation scripts? (Choose three.)

- A. op scripts
- B. pulse scripts
- C. commit scripts
- D. event scripts
- E. action scripts

**Correct Answer: ACD**

**Section: (none)**

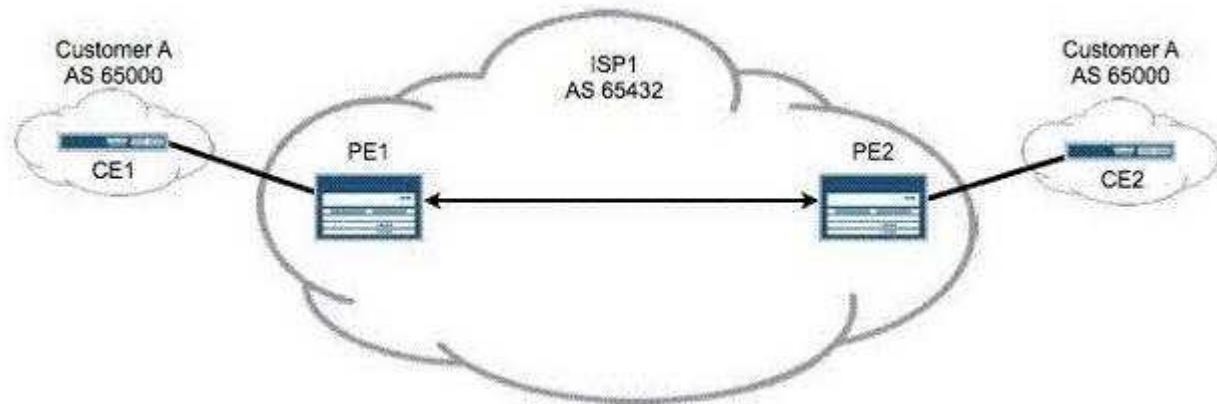
**Explanation**

**Explanation/Reference:**

Explanation:

#### **QUESTION 43**

Click the Exhibit button.



In the exhibit, your Layer 3 VPN uses BGP to send and receive routes from customers. Customer A reports that remote routes are not being received on CE2. Which configuration parameter is missing from your PE router configuration?

- A. vrf-import
- B. vrf-export
- C. as-override
- D. advertise-peer-as

**Correct Answer: C**

**Section: (none)**

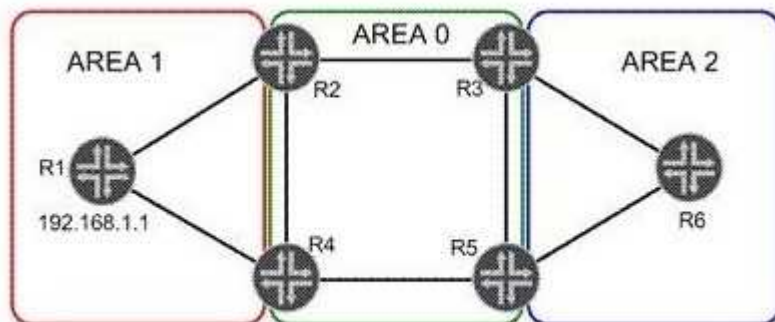
**Explanation**

**Explanation/Reference:**

Explanation:

#### QUESTION 44

Click the Exhibit button.



In the exhibit, R1 has a loopback address of 192.168.1.1. Its loopback interface is included in OSPF Area 1. Which two statements are true? (Choose two.)

- A. R1 will advertise the loopback address in a Type 1 LSA.
- B. R1 will advertise the loopback address in a Type 3 LSA.
- C. Area 0 will see the loopback address in a Type 1 LSA.
- D. Area 0 will see the loopback address in a Type 3 LSA.

**Correct Answer: AD**

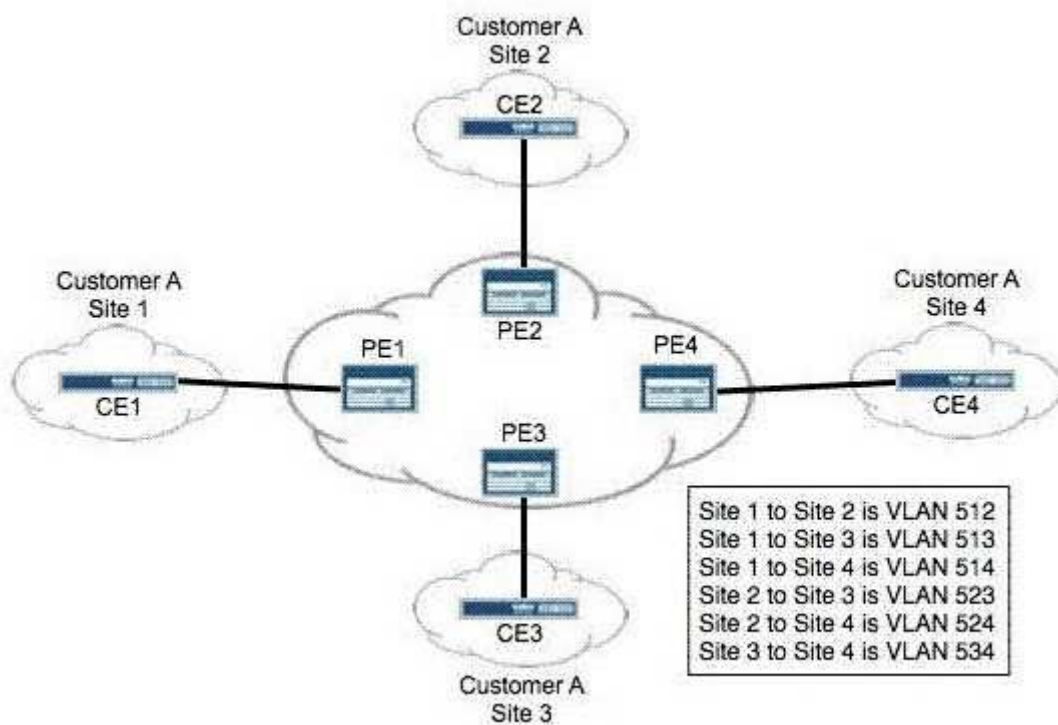
**Section: (none)**  
**Explanation**

**Explanation/Reference:**  
Explanation:

**QUESTION 45**  
Click the Exhibit button.



<http://www.gratisexam.com/>



You are provisioning a full-mesh BGP Layer 2 VPN for Customer A. The customer has four remote sites in their network. Using best practices, you assigned interface unit numbers matching the assigned VLAN numbers. Which Layer 2 VPN configuration is correct for PE2?

- A. `l2vpn { encapsulation-type ethernet-vlan; site CE2 { site-identifier 2; interface ge-0/0/0.523; interface ge-0/0/0.512; interface ge-0/0/0.524; }}`
- B. `l2vpn { encapsulation-type ethernet-vlan; site CE2 { site-identifier 2; interface ge-0/0/0.523; interface ge-0/0/0.524; interface ge-0/0/0.512; }}`
- C. `l2vpn { encapsulation-type ethernet-vlan; site CE2 { site-identifier 2; interface ge-0/0/0.512; interface ge-0/0/0.523; interface ge-0/0/0.524; }}`
- D. `l2vpn { encapsulation-type ethernet-vlan; site CE2 { site-identifier 2; interface ge-0/0/0.512; interface ge-0/0/0.524; interface ge-0/0/0.523; }}`

**Correct Answer: C**

**Section: (none)**

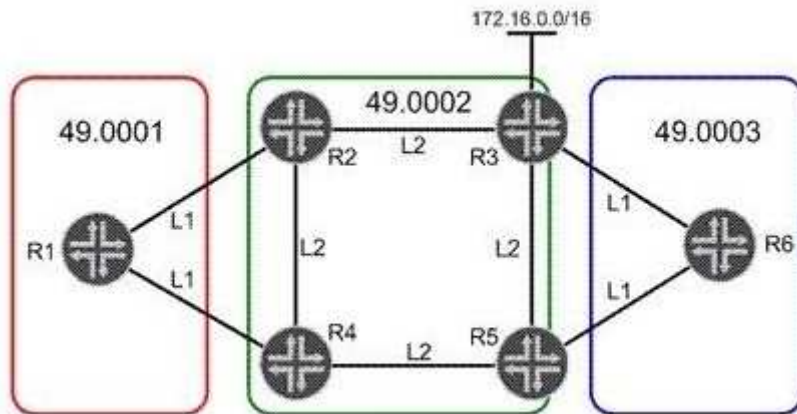
**Explanation**

**Explanation/Reference:**

Explanation:

**QUESTION 46**

Click the Exhibit button.



In the exhibit, network 172.16.0.0/16 is redistributed into IS-IS in Area 49.0002. R1 must use R2 to access 172.16.0.0/16. All other traffic leaving Area 49.0001 must use R4. Which three steps will accomplish this task? (Choose three.)

- A. Configure R1 to ignore the attached bit.
- B. Disable the attached bit on R4 in Area 49.0001.
- C. Enable an L2 adjacency on the link between R1 and R2.
- D. Leak network 172.16.0.0/16 into L1 on R2.
- E. Redistribute a static default route into L1 on R4.

**Correct Answer: ACD**

**Section: (none)**

**Explanation**

**Explanation/Reference:**

Explanation:

**QUESTION 47**

Click the Exhibit button.

```
[edit]
root@R3# run show isis database
IS-IS level 1 link-state database:
LSP ID                Sequence Checksum Lifetime Attributes
R3.00-00              0x1    0x2748      1146 L1 L2
  1 LSPs

IS-IS level 2 link-state database:
LSP ID                Sequence Checksum Lifetime Attributes
R4.00-00              0x2    0xda98      1150 L1 L2
R3.00-00              0x2    0x2de1      1152 L1 L2
R3.02-00              0x1    0x48c6      1152 L1 L2
  3 LSPs
```

Based on the output in the exhibit, which statement is correct?

- A. R4 has been configured with an IS-IS export policy and is announcing external routing information.
- B. R3 and R4 have an adjacency at both level 1 and level 2.
- C. R3 has been configured so that it is not used for transit traffic.
- D. R3 and R4 have only a level 2 adjacency.

**Correct Answer: D**

**Section: (none)**

**Explanation**

**Explanation/Reference:**

Explanation:

#### QUESTION 48

Click the Exhibit button.

```
user@PE2> show route advertising-protocol bgp 192.168.3.1

customer-vpn.inet.0: 5 destinations, 5 routes (5 active, 0 holddown, 0 hidden)
  Prefix Nexthop MED Lclpref AS path
  * 172.16.2.0/24 Self 100 I
  * 172.16.20.0/30 Self 100 65001 I
  * 172.16.20.4/30 Self 100 65001 I
  * 172.16.20.8/30 Self 100 65001 I

user@PE1> show route receive-protocol bgp 192.168.4.1

inet.0: 6 destinations, 6 routes (6 active, 0 holddown, 0 hidden)
inet.3: 1 destinations, 1 routes (1 active, 0 holddown, 0 hidden)
customer-vpn.inet.0: 2 destinations, 2 routes (2 active, 0 holddown, 0 hidden)
iso.0: 1 destinations, 1 routes (1 active, 0 holddown, 0 hidden)
mpls.0: 5 destinations, 5 routes (5 active, 0 holddown, 0 hidden)
```

Customer A is complaining that routes advertised from the CE2 router are not being received on the CE1

router. The physical topology of the network is CE1-PE1-PE2-CE2. The CE1-PE1 subnet is 172.16.1.0/24. The CE2-PE2 subnet is 172.16.2.0/24. PE1's loopback is 192.168.3.1 and PE2's loopback is 192.168.4.1. Referring to the output in the exhibit, what is the problem?

- A. No LSP exists between PE1 and PE2.
- B. Route targets are not properly configured.
- C. as-override is not configured in the VRFs.
- D. family inet-vpn is not configured on the PEs.

**Correct Answer: B**

**Section: (none)**

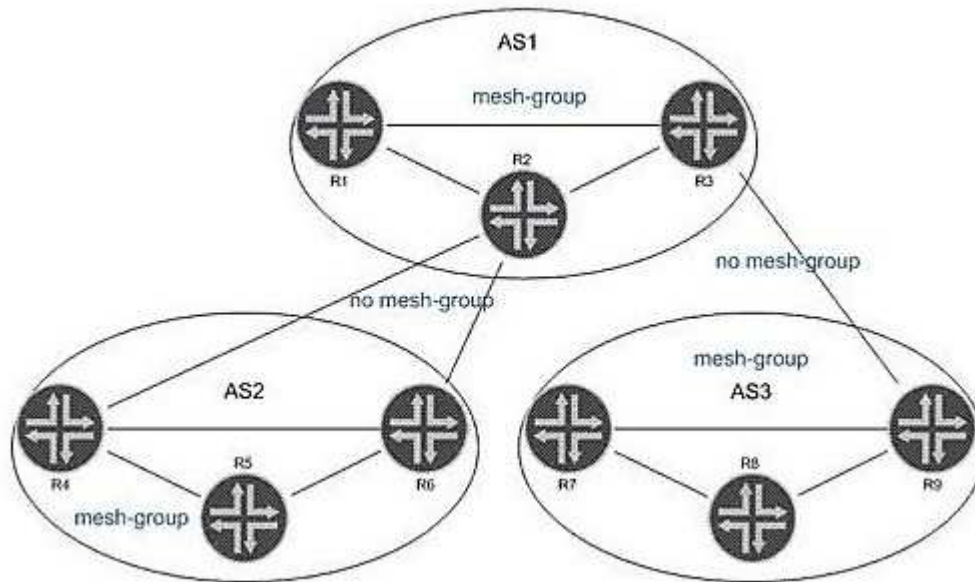
**Explanation**

**Explanation/Reference:**

Explanation:

#### QUESTION 49

Click the Exhibit button.



In the exhibit, all routers within each AS are configured for Anycast RP. All intra-AS routers are configured within the same MSDP mesh group. Inter-AS multicast has been enabled using MSDP without MSDP mesh groups. Which statement is true?

- A. The AS border routers allow TCP port 636 in their infrastructure ACLs.
- B. Duplicate SA messages may be received in AS2.
- C. SA messages from R5, R7, or R8 are not forwarded to AS1.
- D. Inter-AS MSDP peerings must be configured on the AS border routers.

**Correct Answer: B**

**Section: (none)**

**Explanation**

**Explanation/Reference:**

Explanation:

**QUESTION 50**

Junos scripts can be written in which two languages? (Choose two.)

- A. XLS
- B. XML
- C. XSLT
- D. SLAX

**Correct Answer:** CD

**Section:** (none)

**Explanation**

**Explanation/Reference:**

Explanation:

**QUESTION 51**

Click the Exhibit button.

```
user@PE2> show l2circuit connections
Layer-2 Circuit Connections:
```

Legend for connection status (St)

EI -- encapsulation invalid	NP -- interface h/w not present
MM -- mtu mismatch	Dn -- down
EM -- encapsulation mismatch	VC-Dn -- Virtual circuit Down
CM -- control-word mismatch	Up -- operational
VM -- vlan id mismatch	CF -- Call admission control failure
OL -- no outgoing label	IB -- TDM incompatible bitrate
NC -- intf encaps not CCC/TOC	TM -- TDM misconfiguration
BK -- Backup Connection	ST -- Standby Connection
CB -- rcvd cell-bundle size bad	SP -- Static Pseudowire
LD -- local site signaled down	RS -- remote site standby
RD -- remote site signaled down	XX -- unknown

Legend for interface status

Up -- operational  
Dn -- down

Neighbor: 192.168.7.1

Interface	Type	St	Time last up	# Up trans
ge-1/0/0.600(vc 5)	rmt	EM		

```
user@PE1> show ldp database session 192.168.7.1
```

Input label database, 192.168.5.1:0--192.168.7.1:0

Label	Prefix
299792	192.168.5.1/32
299776	192.168.6.1/32
3	192.168.7.1/32
299824	L2CKT CtrlWord ETHERNET VC 5

Output label database, 192.168.5.1:0--192.168.7.1:0

Label	Prefix
3	192.168.5.1/32
299776	192.168.6.1/32
299792	192.168.7.1/32
299808	L2CKT CtrlWord VLAN VC 5

Customer A is complaining that CE1 and CE2 cannot form an OSPF adjacency across your LDP Layer 2 circuit. The physical topology of the network is CE1-PE1-P-PE2-CE2. PE1's loopback is 192.168.5.1, P's loopback is 192.168.6.1, and PE2's loopback is 192.168.7.1 Referring to the output in the exhibit, what is the problem?

- A. mismatched virtual circuit ID values
- B. mismatched interface encapsulations
- C. incorrect PE-CE interface configuration
- D. extended LDP neighbor not established

**Correct Answer: A**

**Section: (none)**

**Explanation**

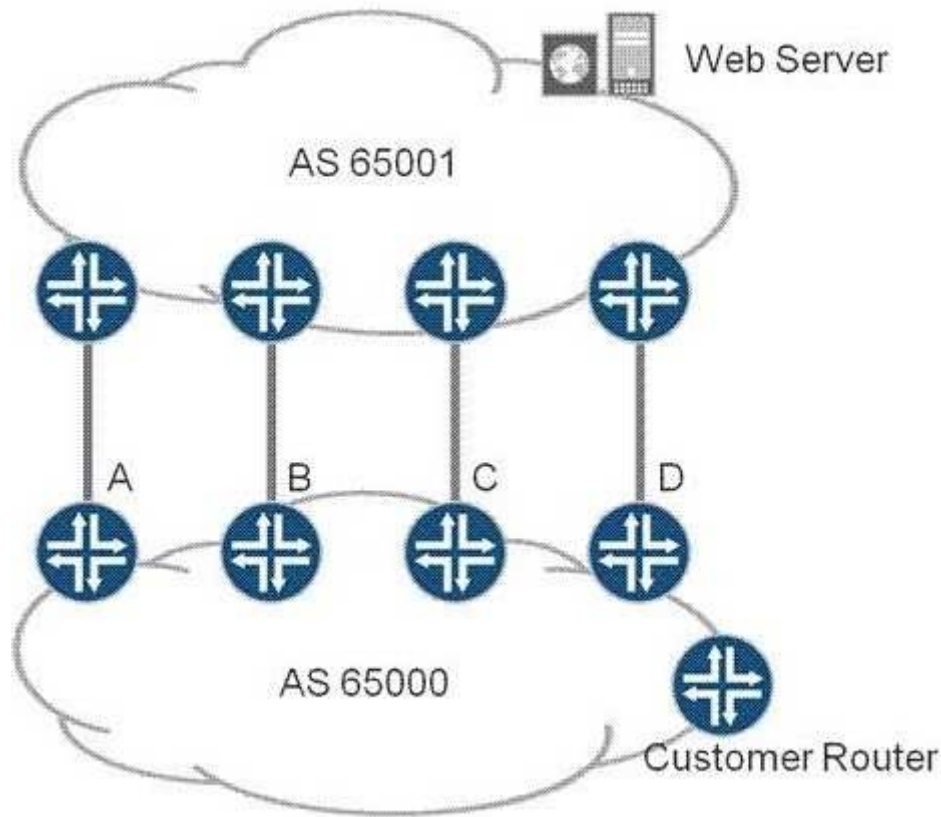
**Explanation/Reference:**

Explanation:



**QUESTION 52**

Click the Exhibit button.



You are the administrator of AS 65000. There are four links between your network (AS 65000) and your upstream provider (AS 65001). You have an import policy on all of your routers. The routing table on the customer router has four routes to the Web server as follows:

Router A: Local Pref 110, IGP Cost 1000

Router B: Local Pref 100, IGP Cost 200

Router C: Local Pref 110, IGP Cost 900

Router D: Local Pref 100, IGP Cost 1000

Through which link will traffic to the Web server leave your network (AS 65000) from the customer router?

- A. Router A
- B. Router B
- C. Router C
- D. Router D

**Correct Answer:** C

**Section:** (none)

**Explanation**

**Explanation/Reference:**

Explanation:

**QUESTION 53**

You are asked to design a Layer 2 VPN service between service provider networks that needs Ethernet transport capabilities. The VPN should support two or three endpoints. Which Layer 2 VPN technology should you propose?

- A. LDP-signaled VPLS
- B. BGP-signaled VPLS, using the RFC 4448 Layer 2 frame format
- C. LDP Layer 2 circuit, using the RFC 4448 Layer 2 frame format
- D. BGP Layer 2 VPN

**Correct Answer:** B

**Section:** (none)

**Explanation**

**Explanation/Reference:**

Explanation:

**QUESTION 54**

You just added route reflectors to your network and you find that all of your VPN routes are hidden on the route reflectors. What three solutions can you use to solve this? (Choose three.)

- A. Use rib-groups to add IGP routes to inet.3 and/or inet6.3 on all of the client routers.
- B. Add MPLS LSPs between the route reflectors and their client routers.
- C. Apply a next-hop-self export policy on each of the route reflectors.
- D. Use rib-groups to add IGP routes to inet.3 and/or inet6.3 on the route reflectors.
- E. Add a static default route to inet.3 and/or inet6.3 on the route reflectors.

**Correct Answer:** BDE

**Section:** (none)

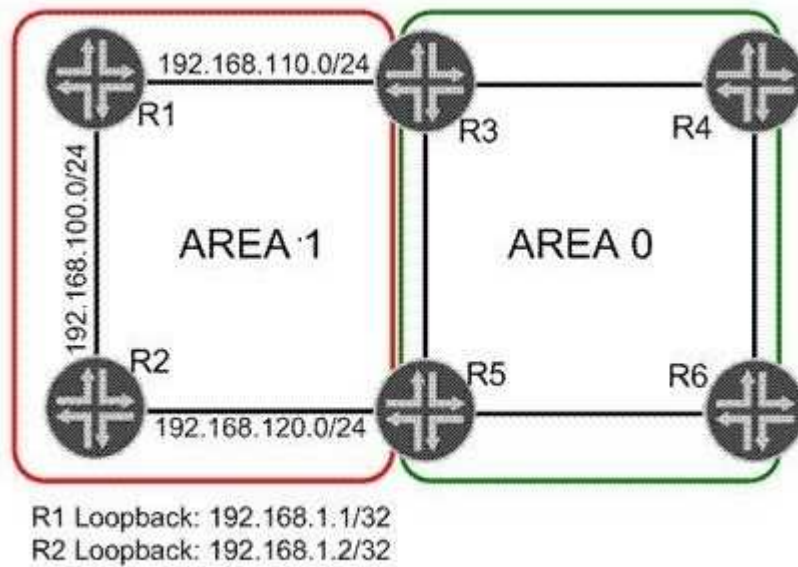
**Explanation**

**Explanation/Reference:**

Explanation:

**QUESTION 55**

Click the Exhibit button.



Area 1 has three network links. You need to summarize the network addresses in Area 1 so that Area 0 sees one route representing the network links. A route to each loopback address must still be visible in Area 0. Which configuration sample on R3 and R5 will complete this task?

- A. Option A
- B. Option B
- C. Option C
- D. Option D

**Correct Answer:** B

**Section:** (none)

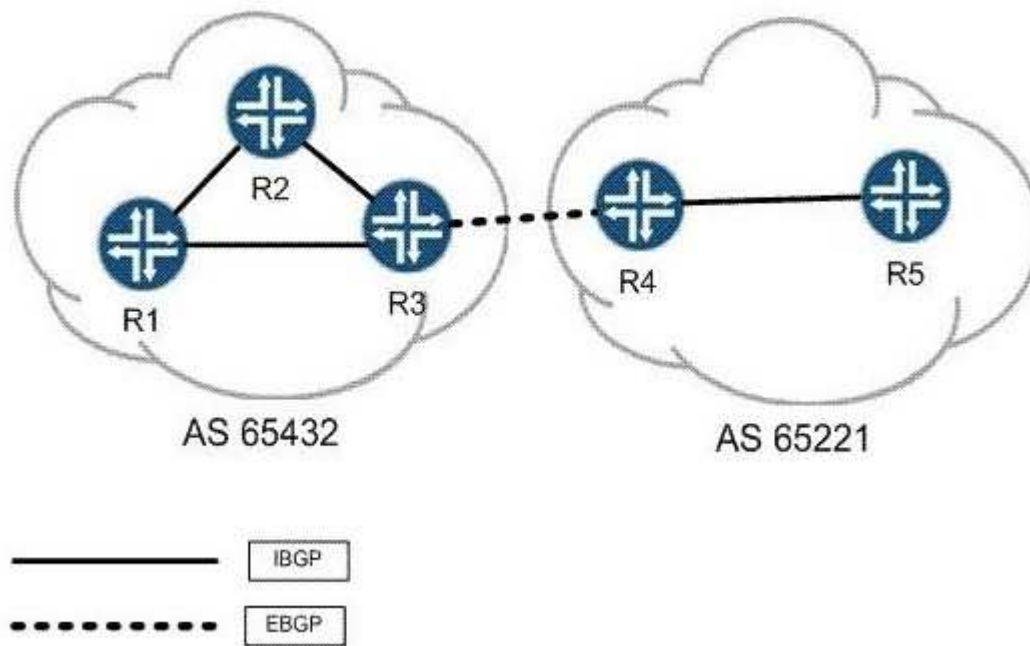
**Explanation**

**Explanation/Reference:**

Explanation:

#### QUESTION 56

Click the Exhibit button.



R3 and R4 want to establish an EBGP session between each other's loopback addresses. Static routes have been configured for the loopback addresses and you can ping from loopback to loopback. Their EBGP sessions are configured with multihop to allow for additional hops. The correct AS numbers have been specified at the [routing-options] hierarchy as well. Considering the topology in the exhibit, which statement is true?

- A. BGP's protocol preference must be adjusted to be lower than protocol static for the session to establish.
- B. Each peer must configure a local-address of their own loopback for the session to establish.
- C. Each peer must specify a local-as within their EBGP configuration for the session to establish.
- D. Each peer must configure multipath for the session to establish.

**Correct Answer:** B

**Section:** (none)

**Explanation**

**Explanation/Reference:**

Explanation:

#### QUESTION 57

You are evaluating a routing policy for an ISP and you find the `^42+ .* (23|9)$` regular expression. Which three AS paths match the regular expression? (Choose three.)

- A. 42 42 42 42 9
- B. 42 42 23 500
- C. 42 42 42 60 9
- D. 42 60 23 9 42
- E. 42 69 500 23

**Correct Answer:** ACE

**Section:** (none)

**Explanation**

**Explanation/Reference:**

Explanation:

**QUESTION 58**

Click the Exhibit button.

```
[edit]
jorg@pel# show routing-instances mcast-pe-vrf
instance-type vrf;
interface ge-1/0/9.101;
interface lo0.1;
provider-tunnel {
    rsvp-te {
        label-switched-path template {
            mvpn-example;
        }
    }
}
protocols {
    ..
    pim {
        rp {
            local {
                address 192.168.13.3;
            }
        }
        interfaces all {
            mode sparse;
        }
    }
    mvpn {
        mvpn-mode {
            spt-only;
        }
    }
    ..
}
```

A customer has the configuration shown in the exhibit applied to the VRF C-PIM domain. What can you determine from this configuration?

- A. The PE is configured for selective PMSI (S-PMSI) only.
- B. The C-RP is collocated on one of the PEs in the MVPN.
- C. The MVPN is not working because the receiver-site command is missing.
- D. Multicast traffic will not switch to the S-PMSI because the vpn-group-address command (data MDT) is missing.

**Correct Answer: B**

**Section: (none)**

**Explanation**

**Explanation/Reference:**

Explanation:

**QUESTION 59**

The network design team has decided to activate multicast in the network. Auto-RP has been selected as the RP mechanism. Which PIM operational mode must be enabled in this network?

- A. sparse mode
- B. sparse-dense mode
- C. dense mode
- D. source specific multicast

**Correct Answer:** B

**Section:** (none)

**Explanation**

**Explanation/Reference:**

Explanation:

#### QUESTION 60

An administrator wants to block the re-advertisement of the 10.10.255.6 FEC to all LDP neighbors while still advertising the local router's loopback address. What will accomplish this?

- A. Option A
- B. Option B
- C. Option C
- D. Option D

**Correct Answer:** B

**Section:** (none)

**Explanation**

**Explanation/Reference:**

Explanation:

#### QUESTION 61

Click the Exhibit button.

```
My_VPLS2 {
  instance-type vpls;
  interface ge-1/0/1.0;
  protocols {
    vpls {
      no-tunnel-services;
      vpls-id 100;
      neighbor 192.168.1.1;
    }
  }
}
```

Referring to the exhibit, which two statements are true? (Choose two.)

- A. The VPN uses LDP signaling for VPLS services.
- B. The VPN uses BGP signaling for VPLS services.
- C. The PE and directly attached CE are multihomed.
- D. There are only 2 PEs with VPN membership in the network.

**Correct Answer:** AD

**Section:** (none)

**Explanation**

**Explanation/Reference:**

Explanation:

**QUESTION 62**

Click the Exhibit button.

```
user@host> show pim join extensive
Instance: PIM.master Family: INET
R = Rendezvous Point Tree, S = Sparse, W = Wildcard

Group: 239.1.1.1
  Source: *
  RP: 10.255.14.144
  Flags: sparse,rptree,wildcard
  Upstream interface: Local
  Upstream neighbor: Local
  Upstream state: Local RP
  Downstream neighbors:
    Interface: so-1/0/0.0
      10.111.10.2 State: Join Flags: SRW Timeout: 174
    Interface: mt-1/1/0.32768
      10.10.47.100 State: Join Flags: SRW Timeout: Infinity

Group: 239.1.1.1
  Source: 10.255.14.144
  Flags: sparse,spt
  Upstream interface: Local
  Upstream neighbor: Local
  Upstream state: Local Source, Local RP
  Keepalive timeout: 344
  Downstream neighbors:
    Interface: so-1/0/0.0
      10.111.10.2 State: Join Flags: S Timeout: 174
    Interface: mt-1/1/0.32768
      10.10.47.100 State: Join Flags: S Timeout: Infinity

Group: 239.1.1.1
  Source: 10.255.70.15
  Flags: sparse,spt
  Upstream interface: so-1/0/0.0
  Upstream neighbor: 10.111.10.2
  Upstream state: Local RP, Join to Source
  Keepalive timeout: 344
  Downstream neighbors:
    Interface: Pseudo-GMP
      fe-0/0/0.0 fe-0/0/1.0 fe-0/0/3.0
    Interface: so-1/0/0.0 (pruned)
      10.111.10.2 State: Prune Flags: SR Timeout: 174
    Interface: mt-1/1/0.32768
      10.10.47.100 State: Join Flags: S Timeout: Infinity
```

Given the output in the exhibit, which three statements are correct? (Choose three.)

- A. PIM sparse-dense mode is used.
- B. PIM sparse mode is used.
- C. The receiver and source 10.255.70.15 are on the shortest path tree.
- D. The receiver and source 10.255.70.15 are on the shared tree.
- E. The receiver and RP are on the shortest path tree.

**Correct Answer:** BCE

**Section:** (none)

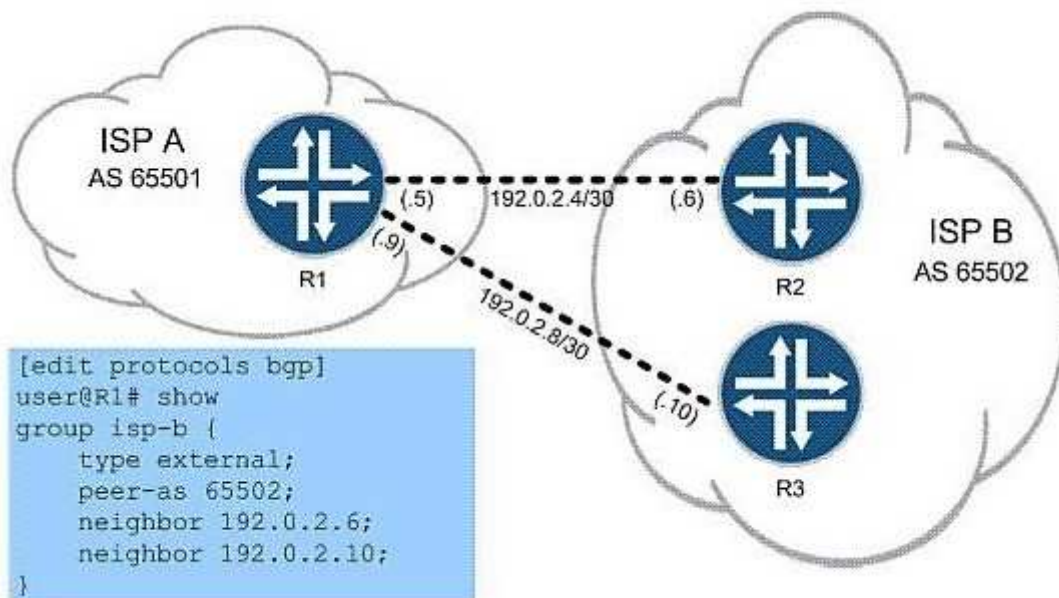
**Explanation**

**Explanation/Reference:**

Explanation:

### QUESTION 63

Click the Exhibit button.



Referring to the exhibit, you work for ISP A and are asked to configure R1 to forward traffic for all routes across both available links, to both routers in ISP B's network. Which three configuration commands do you use? (Choose three.)

- A. set protocols bgp group isp-b multihop
- B. set policy-options policy-statement load-balance then load-balance per-packet
- C. set routing-options forwarding-table import load-balance
- D. set protocols bgp group isp-b multipath
- E. set routing-options forwarding-table export load-balance

**Correct Answer:** BDE

**Section:** (none)

**Explanation**

**Explanation/Reference:**



Explanation:

#### QUESTION 64

An OSPF database contains two router LSAs with identical link information indicating that one LSA is not valid. Which action will immediately clear the invalid LSA from the network without waiting for the LSA to time out or resetting the OSPF sessions on the router?

- A. user@router# deactivate protocols ospf user@router# commit user@router# activate protocols ospf user@router# commit
- B. user@router> clear ospf database purge
- C. user@router> clear ospf database
- D. user@router> restart routing

**Correct Answer:** B

**Section:** (none)

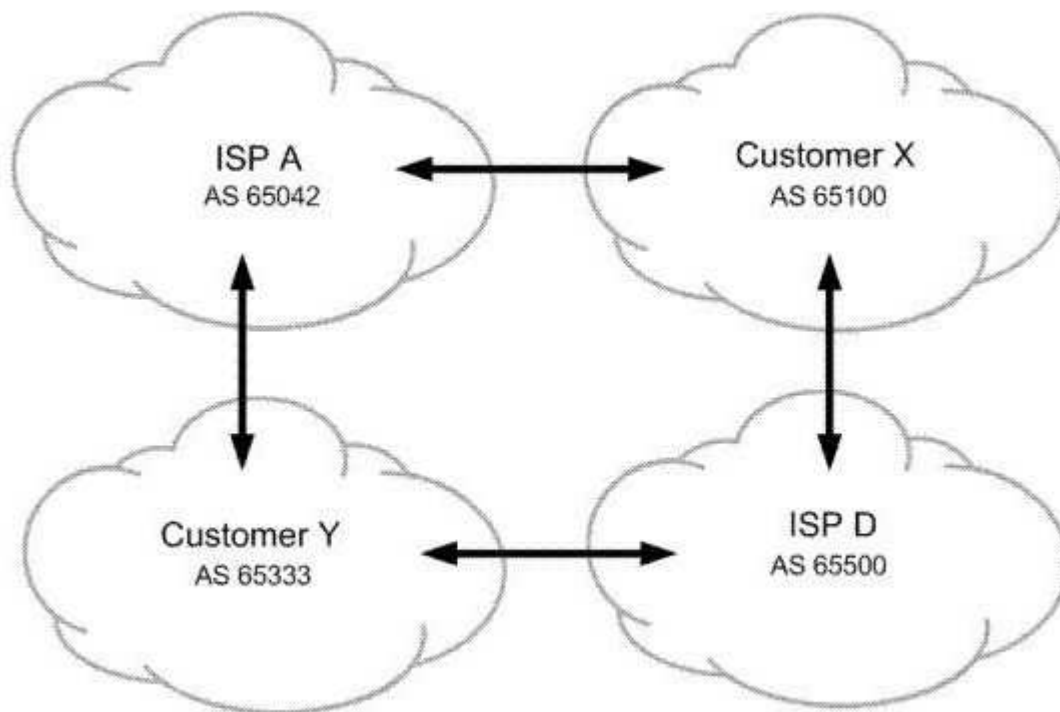
**Explanation**

**Explanation/Reference:**

Explanation:

#### QUESTION 65

Click the Exhibit button.



All ISP networks shown in the exhibit contain many BGP speaking routers. You are in charge of ISP A. You must ensure that customer Y sends their traffic to you over the directly connected link but customer Y is not used for transit into your network. What do you do to accomplish this?

- A. Advertise routes to customer Y with a higher MED than routes advertised to customer X.
- B. Advertise routes to customer Y with the well-known no-advertise community.
- C. Advertise routes to customer Y with your AS number prepended four times.
- D. Advertise routes to customer Y with the well-known no-export community.

**Correct Answer:** D

**Section:** (none)

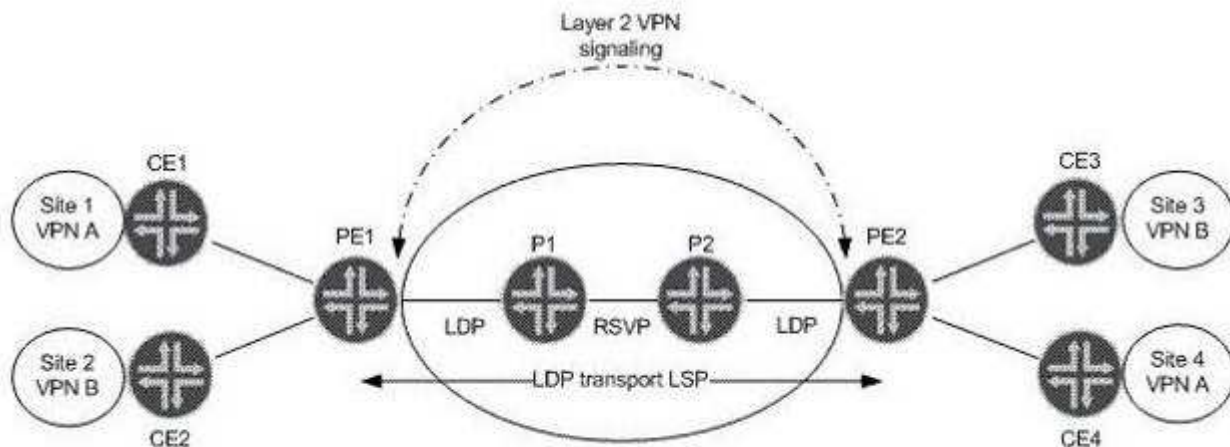
**Explanation**

**Explanation/Reference:**

Explanation:

#### QUESTION 66

Click the Exhibit button.



Referring to the exhibit, which statement is true assuming BGP Layer 2 VPN signaling?

- A. PE1 receives two BGP NLRI updates, each containing a remote site ID, a label base, and Layer 2 encapsulation.
- B. PE2 receives one BGP NLRI update containing a remote site ID, a label base, and Layer 2 encapsulation.
- C. PE2 receives two BGP NLRI updates, each containing a remote site ID, label vc, and Layer 2 encapsulation.
- D. PE1 receives one BGP NLRI for VPN A containing only a remote site ID and a label offset value.

**Correct Answer:** A

**Section:** (none)

**Explanation**

**Explanation/Reference:**

Explanation:

#### QUESTION 67

An LDP Layer 2 circuit is configured for VPN A and VPN B. Which three statements are true regarding LDP Layer 2 circuit signaling? (Choose three.)

- A. PE-P LDP sessions use Martini encapsulation.
- B. PE-PE LDP sessions can be extended or adjacent.
- C. VRF tables are needed on the PEs.
- D. TCC encapsulation is needed to interconnect different interface types.
- E. The VC type field in the LDP header specifies the encapsulation type.

**Correct Answer:** BDE

**Section:** (none)

## Explanation

### Explanation/Reference:

Explanation:

### QUESTION 68

You are provisioning a new customer for an LDP Layer 2 circuit. You have assigned them VLAN 600 on interface ge-1/0/0. Which configuration correctly provisions the interface?

- A. interfaces { ge-1/0/0 { vlan-tagging; unit 600 { encapsulation vlan-ccc; vlan-id 600; } } }
- B. interfaces { ge-1/0/0 { vlan-tagging; encapsulation vlan-ccc; unit 600 { vlan-id 600; } } }
- C. interfaces { ge-1/0/0 { encapsulation vlan-ccc; unit 600 { encapsulation vlan-ccc; vlan-id 600; } } }
- D. interfaces { ge-1/0/0 { vlan-tagging; encapsulation vlan-ccc; unit 600 { encapsulation vlan-ccc; vlan-id 600; } } }

**Correct Answer: D**

**Section: (none)**

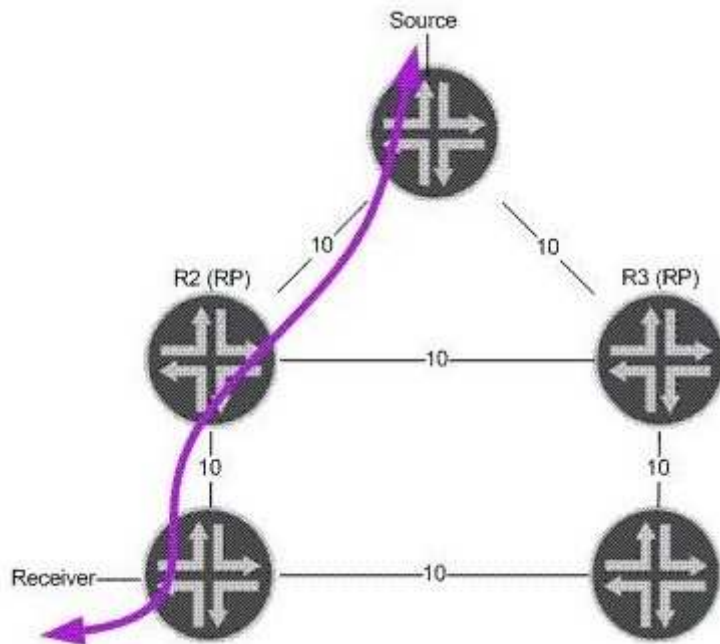
## Explanation

### Explanation/Reference:

Explanation:

### QUESTION 69

Click the Exhibit button.



In the exhibit, R2 and R3 are both rendezvous points. Assume that R2 fails. Which RP redundancy method could converge the multicast stream and RP as quickly as the IGP?

- A. BSR without the use of MSDP
- B. Anycast RP and MSDP
- C. Auto-RP in combination with MSDP
- D. Auto-RP without using MSDP

**Correct Answer:** B

**Section:** (none)

**Explanation**

**Explanation/Reference:**

Explanation:

#### QUESTION 70

Which three statements are true about the BGP community attribute? (Choose three.)

- A. There are three well-known communities.
- B. Communities can be used to signal local preference in other AS networks.
- C. Only well-known communities can be passed between AS networks.
- D. Routing policies can be simplified using BGP communities.
- E. Communities are used in the route selection process.

**Correct Answer:** ABD

**Section:** (none)

**Explanation**

**Explanation/Reference:**

Explanation:

#### QUESTION 71

An IS-IS level 1-only router is configured within a larger multilevel hierarchy. Which OSPF area type resembles the routing information in the L1 router's table?

- A. OSPF default area
- B. OSPF stub area
- C. OSPF NSSA
- D. OSPF NSSA with no summaries

**Correct Answer:** D

**Section:** (none)

**Explanation**

**Explanation/Reference:**

Explanation:

#### QUESTION 72

Click the Exhibit button.

```
BGP RECV 192.168.56.1+179 -> 192.168.56.5+49444
BGP RECV message type 4 (KeepAlive) length 19
```

```
BGP RECV 192.168.56.1+179 -> 192.168.56.5+49444
BGP RECV message type 2 (Update) length 54
BGP RECV Update PDU length 54
BGP RECV flags 0x40 code Origin(1): IGP
BGP RECV flags 0x40 code ASPath(2) length 0: <null>
BGP RECV flags 0x40 code NextHop(3): 192.168.56.1
BGP RECV flags 0x40 code LocalPref(5): 100
BGP RECV          10.10.56.0/30 , 192.168.56.1/32
```

The exhibit contains a sample trace file of a BGP update message. Which two statements are true? (Choose two.)

- A. 10.10.56.0/30 is a route internal to the AS.
- B. The router that sent this update is the BGP originator of 10.10.56.0/30.
- C. The BGP session is EBGP.
- D. The local preference has been changed from the default settings.

**Correct Answer:** AD

**Section:** (none)

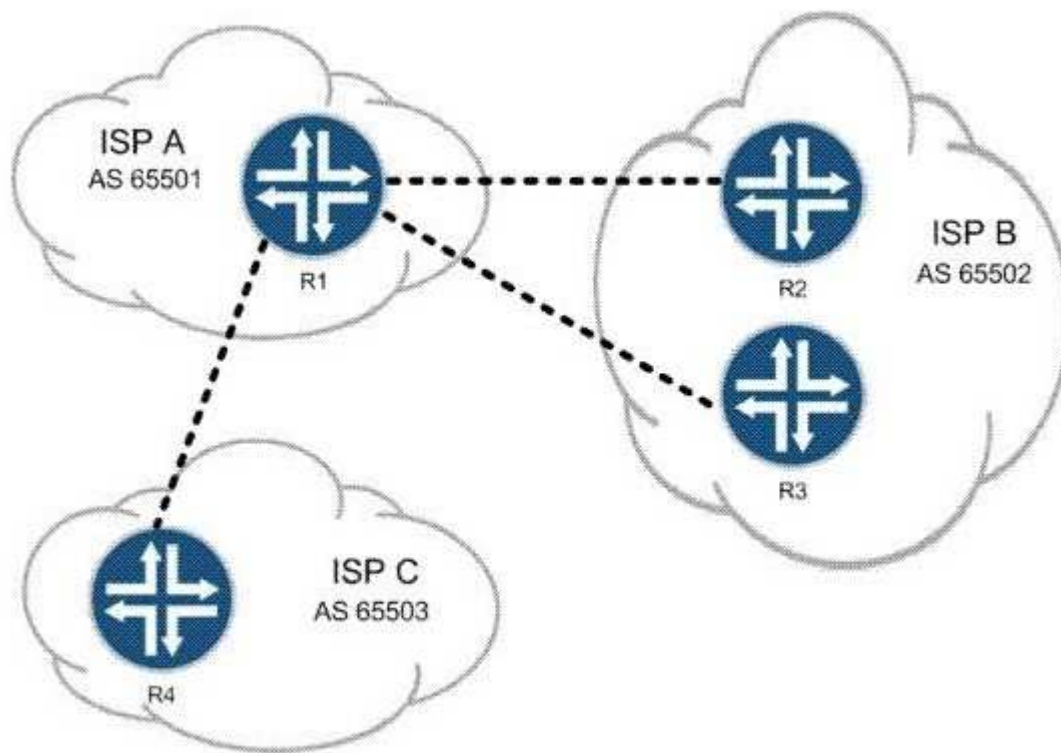
**Explanation**

**Explanation/Reference:**

Explanation:

### QUESTION 73

Click the Exhibit button.



Your employer is ISP A. Your customers must be able to reach customers of both ISP B and ISP C, but your network must not allow transit traffic between ISP B and ISP C at any time. Referring to the exhibit, what are two solutions? (Choose two.)

- A. Use policy to filter routes on AS number.
- B. Use the well-known no-export community.
- C. Use the MED to prefer the proper routes.
- D. Use communities to identify and filter routes.

**Correct Answer:** AD

**Section:** (none)

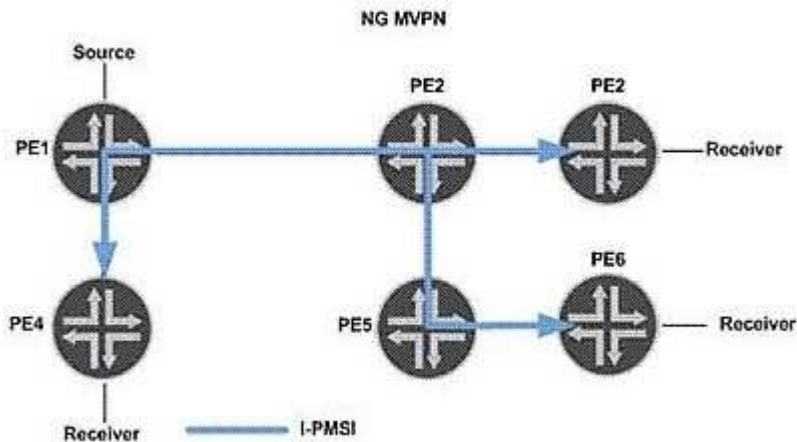
## Explanation

### Explanation/Reference:

Explanation:

### QUESTION 74

Click the Exhibit button.



In the exhibit, NG-MVPN is used for a Layer 3 VPN. Which two statements are valid? (Choose two.)

- A. The egress PEs for I-PMSI tunnels should signal a label value of 3.
- B. The vrf-table-label parameter is configured on the PEs.
- C. PIM must be enabled on the PE and P routers.
- D. The provider tunnel shown is similar to a draft-Rosen default MDT.

**Correct Answer:** BD

**Section:** (none)

**Explanation**

### Explanation/Reference:

Explanation:

### QUESTION 75

Click the Exhibit button.

```

[edit protocols mpls]
user@router# show
label-switched-path to-egress {
    to 172.40.100.10;
    secondary path-one;
    secondary path-three;
    secondary path-two;
}
path path-one {
    172.20.100.1;
}
path path-two {
    172.20.100.5;
}
path path-three {
    172.20.100.5;
}
interface all;
interface fxp0.0 {
    disable;
}

```

Based on the configuration in the exhibit, which statement is correct?

- A. If path-one fails, the LSP will attempt to signal a new LSP using path-three.
- B. If path-one fails, the LSP will attempt to signal a new LSP using path-two.
- C. If path-one fails, the LSP will not attempt to signal a new LSP.
- D. If path-one fails, the LSP will attempt to signal a new LSP using both path-two and path-three.

**Correct Answer:** A

**Section:** (none)

**Explanation**

**Explanation/Reference:**

Explanation:

#### QUESTION 76

You are monitoring the control plane traffic using a network analyzer on an Ethernet network segment with all routers configured with IS-IS routing. Which two statements are true? (Choose two.)

- A. DIS will send hellos more frequently than other IS-IS devices.
- B. L1 and L2 hellos are combined in a single hello packet.
- C. PSNPs are sent periodically.
- D. Only the DIS will send CSNPs periodically.

**Correct Answer:** AD

**Section:** (none)

**Explanation**

**Explanation/Reference:**

Explanation:

#### QUESTION 77

Click the Exhibit button.

```
user@PE2> show route advertising-protocol bgp 192.168.3.1

customer-vpn.inet.0: 5 destinations, 5 routes (5 active, 0 holddown, 0 hidden)
  Prefix Nexthop      MED      Lclpref    AS path
* 172.16.2.0/24          Self                    100      I
* 172.16.20.0/30         Self                    100      65001 I
* 172.16.20.4/30         Self                    100      65001 I
* 172.16.20.8/30         Self                    100      65001 I

user@PE1> show route receive-protocol bgp 192.168.4.1

inet.0: 6 destinations, 6 routes (6 active, 0 holddown, 0 hidden)

inet.3: 1 destinations, 1 routes (1 active, 0 holddown, 0 hidden)

customer-vpn.inet.0: 6 destinations, 6 routes (6 active, 0 holddown, 0 hidden)
  Prefix Nexthop      MED      Lclpref    AS path
* 172.16.2.0/24          192.168.4.1            100      I
* 172.16.20.0/30         192.168.4.1            100      65001 I
* 172.16.20.4/30         192.168.4.1            100      65001 I
* 172.16.20.8/30         192.168.4.1            100      65001 I

iso.0: 1 destinations, 1 routes (1 active, 0 holddown, 0 hidden)

mpls.0: 5 destinations, 5 routes (5 active, 0 holddown, 0 hidden)

bgp.13vpn.0: 4 destinations, 4 routes (4 active, 0 holddown, 0 hidden)
  Prefix Nexthop      MED      Lclpref    AS path
192.168.4.1:1:172.16.2.0/24
*              192.168.4.1            100      I
192.168.4.1:1:172.16.20.0/30
*              192.168.4.1            100      65001 I
192.168.4.1:1:172.16.20.4/30
*              192.168.4.1            100      65001 I
192.168.4.1:1:172.16.20.8/30
*              192.168.4.1            100      65001 I

user@PE1> show route advertising-protocol bgp 172.16.1.2

customer-vpn.inet.0: 6 destinations, 6 routes (6 active, 0 holddown, 0 hidden)
  Prefix Nexthop      MED      Lclpref    AS path
* 172.16.2.0/24          Self                    100      I
```

Customer A is complaining that routes advertised from the CE2 router are not being received on the CE1 router. The physical topology of the network is CE1-PE1-PE2-CE2. The CE1-PE1 subnet is 172.16.1.0/24. The CE2-PE2 subnet is 172.16.2.0/24. PE1's loopback is 192.168.3.1 and PE2's loopback is 192.168.4.1. Referring to the output in the exhibit, what is the problem?

- A. No LSP exists between PE1 and PE2.
- B. Route targets are not properly configured.
- C. as-override is not configured in the VRFs.
- D. family inet-vpn is not configured on the PEs.

**Correct Answer: C**

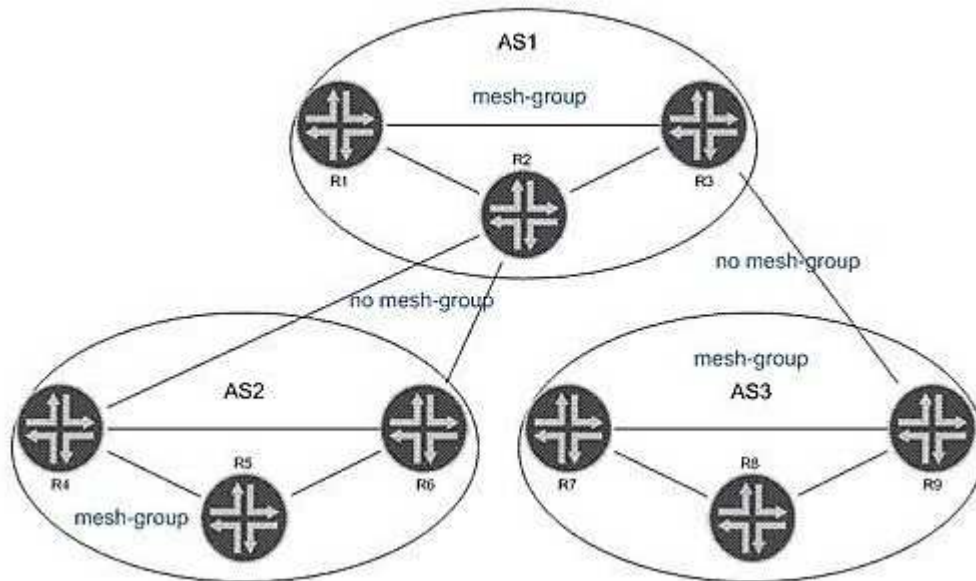


**Section: (none)**  
**Explanation**

**Explanation/Reference:**  
Explanation:

**QUESTION 78**

Click the Exhibit button.



In the exhibit, all routers within each AS are configured for Anycast RP. All intra-AS routers are configured within the same MSDP mesh group. Inter-AS multicast has been enabled using MSDP without MSDP mesh groups. Which statement is true?

- A. R6 and R7 should have an MSDP peering, because multiple MSDP AS hops are not allowed.
- B. SA messages received from R2 are not forwarded to R5, R7, and R8.
- C. SA messages from R5 are not forwarded to AS1.
- D. Duplicate SA messages may be received in AS2.

**Correct Answer: D**  
**Section: (none)**  
**Explanation**

**Explanation/Reference:**  
Explanation:

**QUESTION 79**

Click the Exhibit button.

```

[edit]
user@host# show class-of-service
schedulers {
    voice {
        transmit-rate percent 40;
        priority strict-high;
    }
    critical {
        transmit-rate percent 25;
        priority high;
    }
    less-critical {
        transmit-rate percent 15;
        priority medium-high;
    }
    data {
        transmit-rate percent 10;
        priority medium-low;
    }
    left-over {
        transmit-rate percent 5;
        priority low;
    }
}

```

On your MX Series router, traffic using the less-critical scheduler is out of profile. All other data is currently in profile. Referring to the exhibit, which statement is correct?

- A. The less-critical queue can use the remaining bandwidth.
- B. The less-critical queue cannot buffer traffic, so traffic is dropped.
- C. The less-critical queue is serviced before the critical queue.
- D. The less-critical queue cannot use the remaining bandwidth.

**Correct Answer: A**

**Section: (none)**

**Explanation**

**Explanation/Reference:**

Explanation:

#### **QUESTION 80**

Which two configuration parameters are required to configure an LDP-signaled VPLS service? (Choose two.)

- A. vpls-id
- B. site-identifier
- C. route-distinguisher
- D. instance-type vpls

**Correct Answer: AD**

**Section: (none)**

**Explanation**

**Explanation/Reference:**

Explanation:

**QUESTION 81**

Click the Exhibit button.



As shown in the exhibit, you have an LSP established from R1 to R4. Your network experiences a link failure between R2 and R3. Which statement is correct?

- A. A ResvTear message is sent toward the egress router.
- B. A ResvConf message is sent toward the ingress router.
- C. A PathErr message is sent toward the egress router.
- D. A ResvTear message is sent toward the ingress router.

**Correct Answer: D**

**Section: (none)**

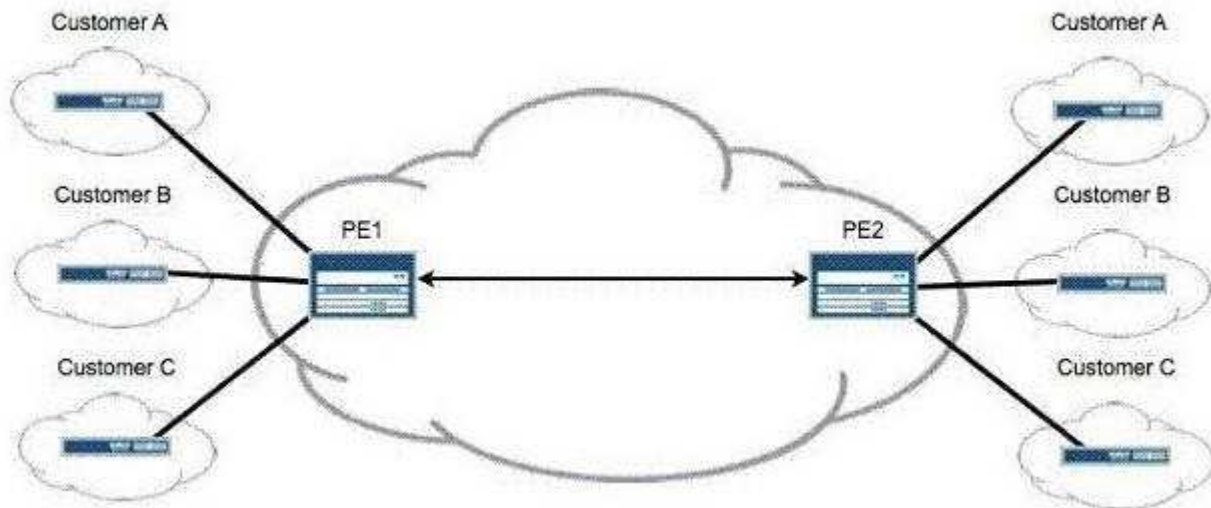
**Explanation**

**Explanation/Reference:**

Explanation:

**QUESTION 82**

Click the Exhibit button.



After adding Customer C to your Layer 3 VPN, you must validate that PE2 is receiving VPN routes for all customers attached to PE1, as shown in the exhibit. Which operational command displays this information?

- A. show route instance
- B. show route summary
- C. show route table bgp.l3vpn.0

D. show route table customer-c.inet.0

**Correct Answer:** C

**Section:** (none)

**Explanation**

**Explanation/Reference:**

Explanation:

#### QUESTION 83

You are adding nonforwarding route reflectors to your network. Which three actions ensure that VPN routes are advertised properly? (Choose three.)

- A. Use rib-groups to add IGP routes to inet.3 and/or inet6.3 on the route reflectors.
- B. Add MPLS LSPs between the route reflectors and their client routers.
- C. Add the route reflectors to the same IGP domain as their clients.
- D. Use rib-groups to add VPN routes to inet.0 and/or inet6.0 on the route reflectors.
- E. Add a static default route to inet.3 and/or inet6.3 on the route reflectors.

**Correct Answer:** ABE

**Section:** (none)

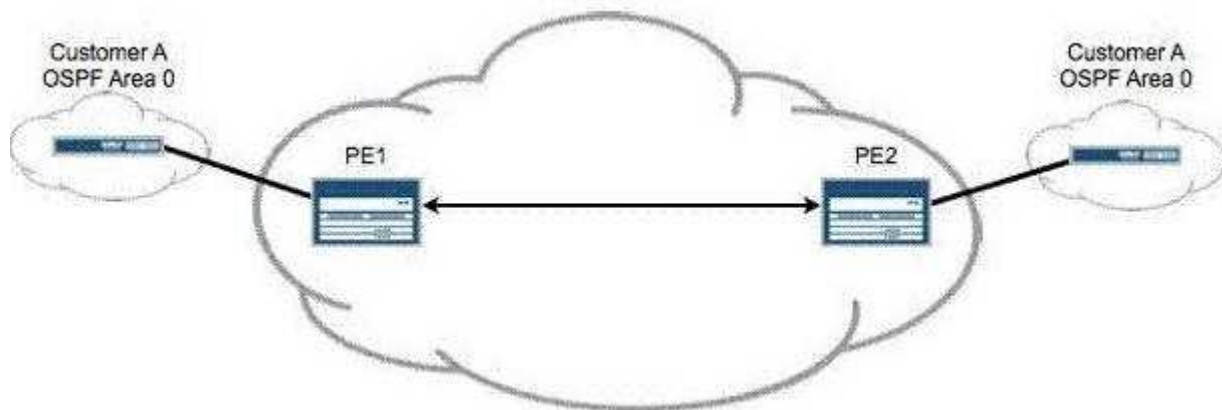
**Explanation**

**Explanation/Reference:**

Explanation:

#### QUESTION 84

Click the Exhibit button.



Referring to the exhibit, Customer A is complaining that no OSPF routes are being received across your Layer 3 VPN. You suspect that a problem exists with the PE-CE protocol. The core network is operational. Which operational command on PE1 helps troubleshoot this problem?

- A. show ospf neighbor
- B. show bgp summary
- C. show ospf neighbor instance customer-a
- D. show bgp summary instance customer-a

**Correct Answer:** C

**Section:** (none)

**Explanation**

**Explanation/Reference:**

Explanation:

**QUESTION 85**

Click the Exhibit button.

```
[edit protocols mpls]
user@router# show
label-switched-path to-egress {
    to 172.40.21.1;
    primary path-one;
    secondary path-two;
}
path path-one {
    172.20.20.5;
}
path path-two {
    172.20.21.5;
}
interface all;
interface fxp0.0 {
    disable;
}
```

Based on the configuration shown in the exhibit, which two statements are correct? (Choose two.)

- A. The secondary path is only signaled if the primary path fails.
- B. The secondary path is signaled and in standby mode.
- C. The LSP will revert back to the primary path when it becomes available.
- D. The LSP will not revert back to the primary path until the session is cleared.

**Correct Answer:** AC

**Section:** (none)

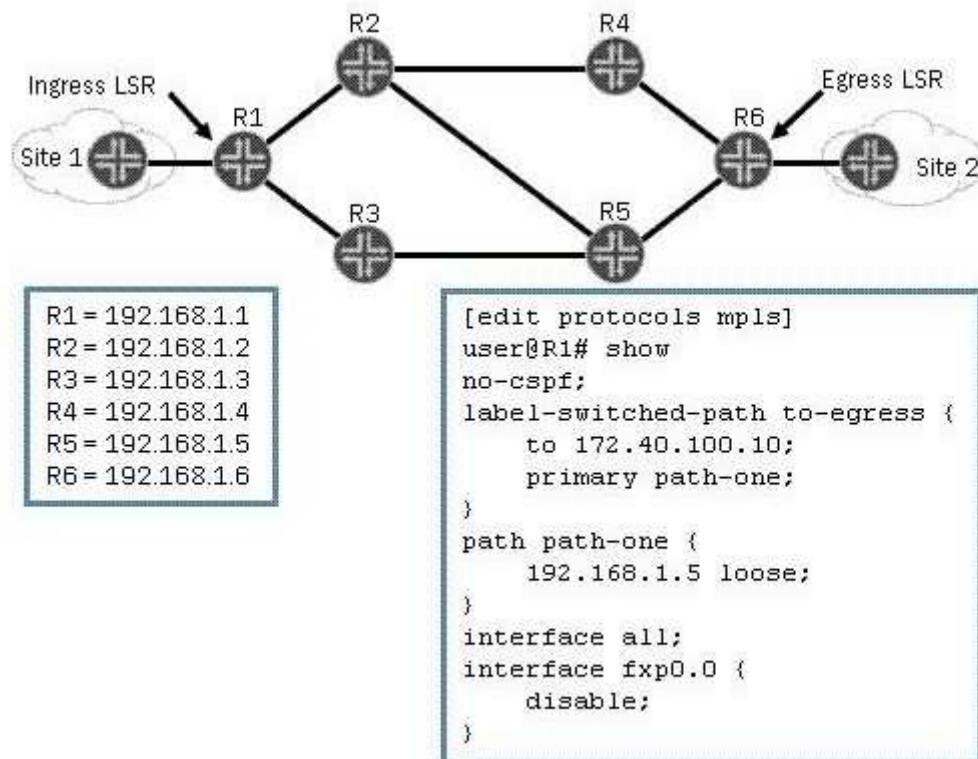
**Explanation**

**Explanation/Reference:**

Explanation:

**QUESTION 86**

Click the Exhibit button.



Using the configuration and topology in the exhibit, which statement is true?

- A. Each LSR randomly selects the physical path to reach the loose hop R5 for the LSP.
- B. Each LSR uses the IGP to select the physical path to reach the loose hop on R5 for the LSP.
- C. Each LSR selects the lowest next-hop IP address to reach the loose hop on R5 for the LSP.
- D. Each LSR selects the highest next-hop IP address to reach the loose hop on R5 for the LSP.

**Correct Answer:** B

**Section:** (none)

**Explanation**

**Explanation/Reference:**

Explanation:

**QUESTION 87**

Click the Exhibit button.

```

[edit]
root@R4# run show isis database
IS-IS level 1 link-state database:
LSP ID                Sequence Checksum Lifetime Attributes
R4.00-00              0x4    0xe888    1154    L1 L2
R3.00-00              0x3    0x2ce1    1150    L1 L2
R3.02-00              0x2    0x46c7    1150    L1 L2
  3 LSPs

IS-IS level 2 link-state database:
LSP ID                Sequence Checksum Lifetime Attributes
R4.00-00              0x5    0xee7d    1154    L1 L2
R3.00-00              0x4    0xed1f    1150    L1 L2
R3.02-00              0x3    0x44c8    1151    L1 L2
  3 LSPs

[edit]
root@R4#

```

Based on the output in the exhibit, which statement is correct?

- A. R4 has been configured with an IS-IS export policy and is announcing external routing information.
- B. R3 and R4 have an adjacency at both level 1 and level 2.
- C. R3 has been configured so that it is not used for transit traffic.
- D. R3 and R4 have only a level 2 adjacency.

**Correct Answer:** B

**Section:** (none)

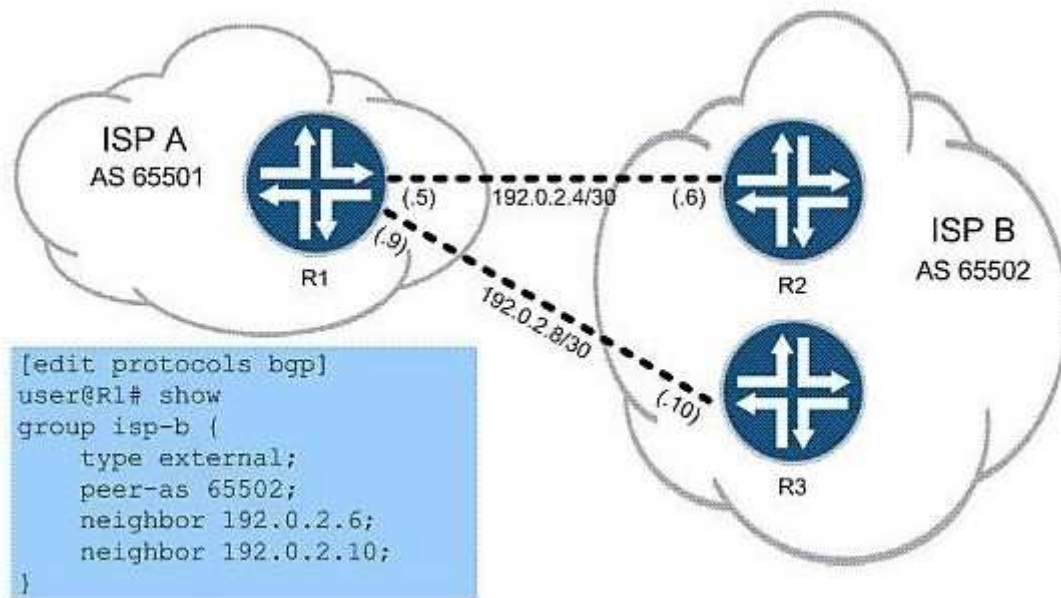
**Explanation**

**Explanation/Reference:**

Explanation:

**QUESTION 88**

Click the Exhibit button.



You work for ISP A, as shown in the exhibit, and must configure R1 to use load balancing across both available links for all routes to ISP B's network. You start by configuring this policy:

```

policy-statement load-balance {
  then {
    load-balance per-packet;
  }
}

```

Which two commands do you use to finish the configuration? (Choose two.)

- A. set protocols bgp group isp-b multihop
- B. set routing-options forwarding-table export load-balance
- C. set routing-options forwarding-table import load-balance
- D. set protocols bgp group isp-b multipath

**Correct Answer:** BD

**Section:** (none)

**Explanation**

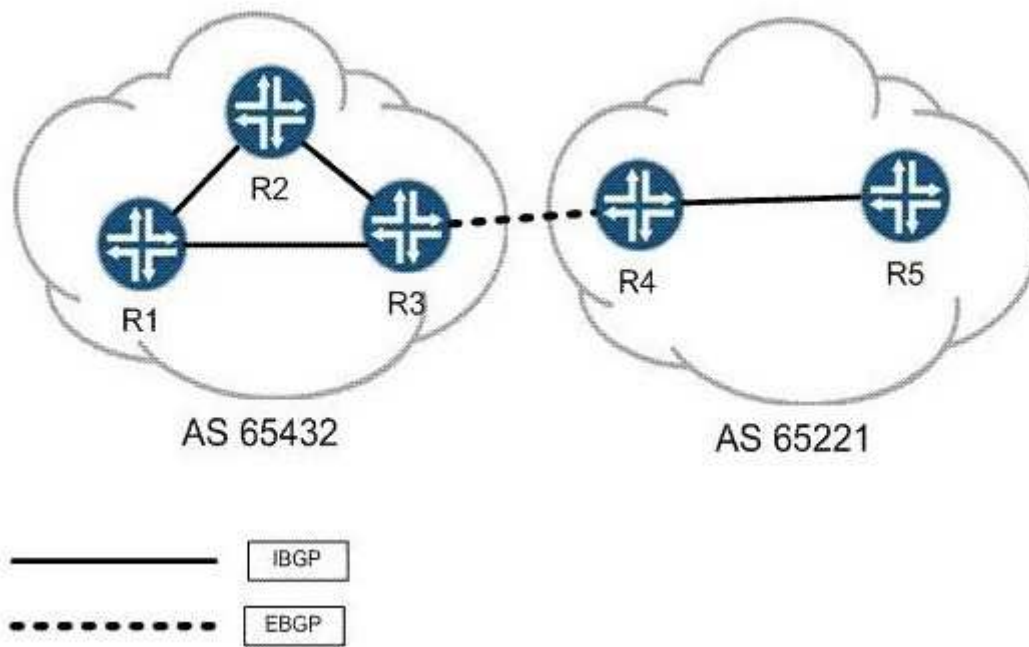
**Explanation/Reference:**

Explanation:

**QUESTION 89**

Click the Exhibit button.





A route is advertised from AS 65221 to AS 65432 using EBGP. The route is active and reachable on R3, but does not appear as an active route on R1 and R2. R3 has an export policy applied to its IBGP group matching on routes from R4, but does not have a then criteria specified. Which policy action should router R3 configure to make this route visible on routers R1 and R2?

- A. then next-hop self
- B. then accept
- C. then announce
- D. then resolve-recursive

**Correct Answer:** A

**Section:** (none)

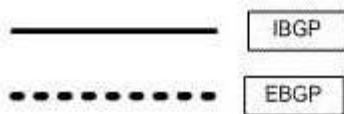
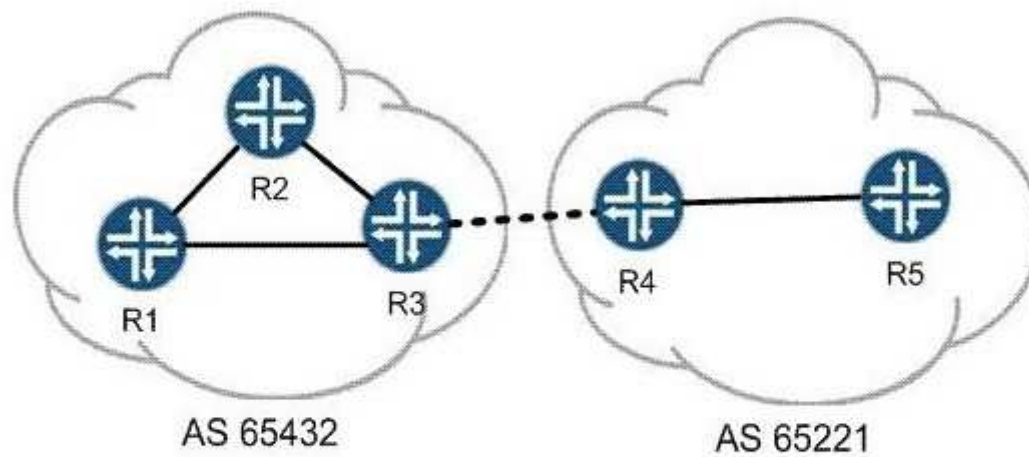
**Explanation**

**Explanation/Reference:**

Explanation:

#### QUESTION 90

Click the Exhibit button.



R3 is announcing a route to R4 using EBGP, as shown in the exhibit. All routers in AS 65221 should learn this route, but it should not be announced to any other AS. What can be done to enforce this behavior?

- A. R3 should add the community no-export to the route prior to announcing it.
- B. R3 should add the community no-advertise to the route prior to announcing it.
- C. R4 should add the community no-announce after receiving the route.
- D. R4 should add the community no-advertise after receiving the route.

**Correct Answer:** A

**Section:** (none)

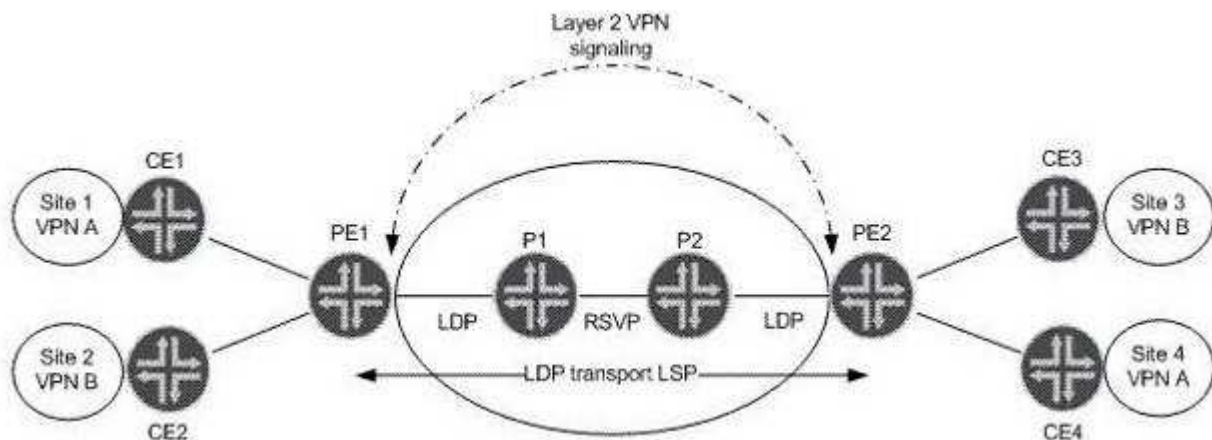
**Explanation**

**Explanation/Reference:**

Explanation:

#### QUESTION 91

Click the Exhibit button.



Referring to the exhibit, which statement is true assuming LDP VPN signaling?

- A. PE1 uses the label value received from PE2 for VPN B as the inner label for VPN B.
- B. PE2 uses the label value received from PE1 for VPN A as the transport label for VPN A.
- C. P1 uses the label value for VPN A advertised by PE1, because RSVP is enabled.
- D. PE1 uses the transport label value received for VPN A that is advertised by PE2 as the inner label for VPN A.

**Correct Answer:** A

**Section:** (none)

**Explanation**

**Explanation/Reference:**

Explanation:

#### QUESTION 92

Click the Exhibit button.

```
[edit class-of-service]
user@router# show
classifiers {
    dscp classifierA {
        forwarding-class low-priority {
            loss-priority low code-points 000000;
            loss-priority high code-points 000001;
        }
        forwarding-class medium-priority {
            loss-priority low code-points 000010;
            loss-priority high code-points 000011;
        }
        forwarding-class high-priority {
            loss-priority low code-points 000100;
            loss-priority high code-points 000101;
        }
    }
}
...

forwarding-classes {
    class low-priority queue-num 0;
    class medium-priority queue-num 1;
    class high-priority queue-num 2;
    class NC queue-num 3;
```

You manage an MX series router (with 100 ms buffer size per port) that includes the configuration shown in the exhibit. Traffic marked with DSCP 000011 is entering the ge-1/0/4 interface at 102 Mbps. The traffic exits the device on the ge-1/0/5 interface. There is no other traffic transiting the router. What happens to traffic exceeding 100 Mbps?

- A. Traffic exceeding 100 Mbps is forwarded.
- B. Traffic exceeding 100 Mbps is buffered.
- C. Traffic exceeding 100 Mbps is redirected to a rate limiter.

D. Traffic exceeding 100 Mbps is dropped.

**Correct Answer:** A

**Section:** (none)

**Explanation**

**Explanation/Reference:**

Explanation:



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