JN0-660.156q

Number: JN0-660
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JN0-660

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Service Provider Routing and Switching, Professional

Topic 1, Volume A

QUESTION 1
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:

QUESTION 2
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;
    }
}
```

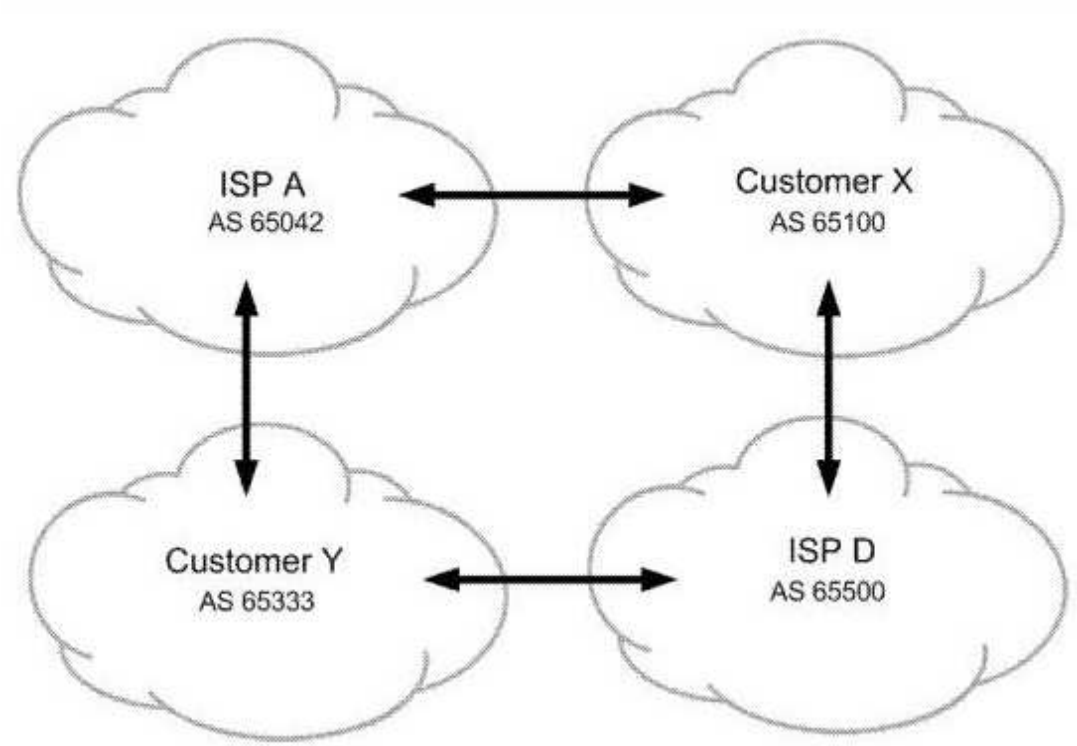
On your MX Series router, traffic using the critical scheduler is out of profile. All other data is currently in profile. Referring to the exhibit, which statement is correct?

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:

QUESTION 3
Click the Exhibit button.



All networks shown in the exhibit contain more than one BGP speaking router. You operate 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?

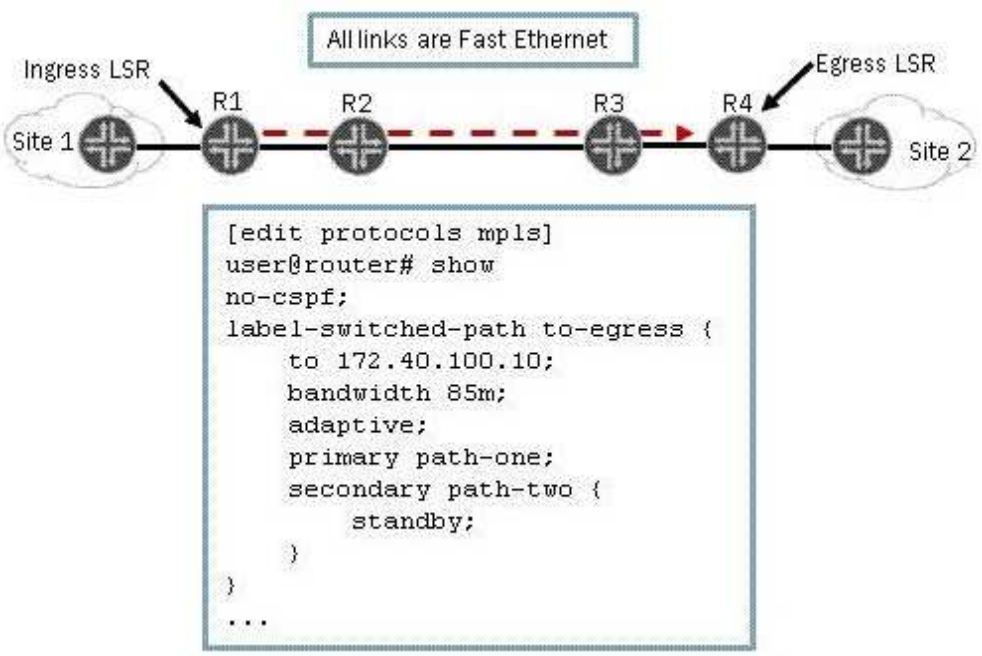
A. Advertise routes to customer Y with the well-known no-transit community.
B. Advertise routes to customer X with the well-known no-advertise community.
C. Advertise routes to customer Y with the well-known no-export community.
D. Advertise routes to customer X with the well-known as-transit community.

Correct Answer: C
Section: (none)

Explanation

Explanation/Reference:

QUESTION 4
Click the Exhibit button.



As shown in the exhibit, you have an adaptive LSP that requires 85 Mbps. The LSP is configured with a primary path and a secondary path in standby mode. All connections in the MPLS network are Fast Ethernet. Which statement is correct?

A. The primary and secondary paths are in an up state and operational.
B. The primary and secondary paths are in a down state and not operational.
C. The secondary path is in a down state and not operational.
D. The primary path is in a down state and not operational.

Correct Answer: A

Section: (none)
Explanation

Explanation/Reference:

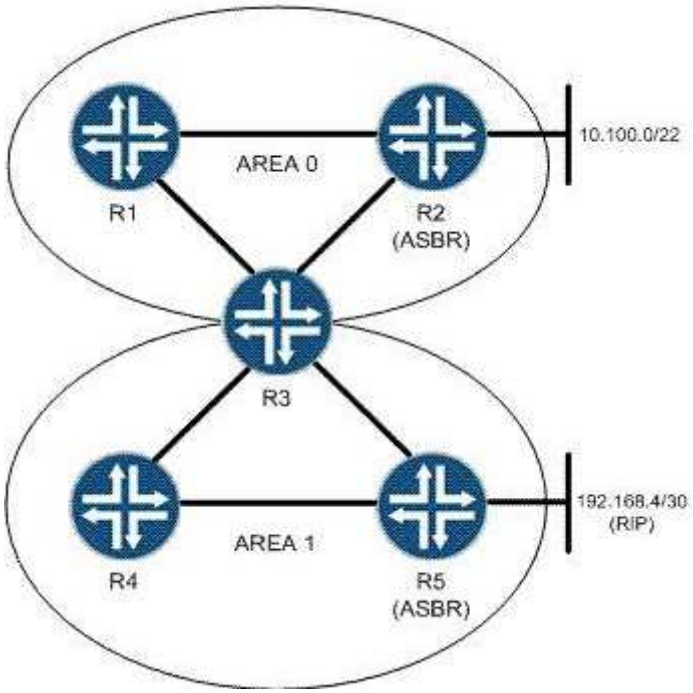
QUESTION 5
Your are the administrator for a network that uses IS-IS as its IGP. As the network grows, you find that the protocol's default capabilities for setting metrics is limiting your options. Which feature can you implement to provide a larger range of metric configuration capabilities?

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

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:

QUESTION 6
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: B
Section: (none)
Explanation

Explanation/Reference:

QUESTION 7

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:

QUESTION 8
Click the Exhibit button.

```
drop-profiles {
    profileA {
        fill-level 60 drop-probability 60;
        fill-level 80 drop-probability 70;
        fill-level 100 drop-probability 100;
    }
}
```

Given the drop profile in the exhibit, what is the drop probability when the buffer reaches 90% full?

A. 60%

B. 70%
C. 85%
D. 90%

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:

QUESTION 9
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
  Explct 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?

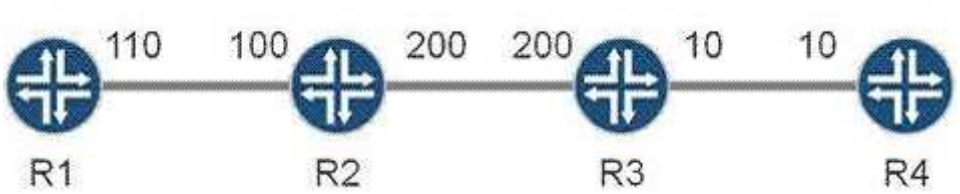
A. fast-reroute

B. link-protection
C. node-link-protection
D. secondary

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:

QUESTION 10
Click the Exhibit button.



All routers in the exhibit are running IS-IS level 2 routing. The wide-metrics-only parameter is configured on all routers. Which metric does R1 see for the path to R4?

A. 136
B. 138
C. 310
D. 320

Correct Answer: D
Section: (none)
Explanation

Explanation/Reference:

QUESTION 11
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:

QUESTION 12
Your multicast receivers are indirectly connected to an MX Series router. The receivers need to join multicast group 224.2.2.2. What must be configured in IGMP to receive report messages from receivers that are multiple hops away?

A. By default, IGMP accepts report messages from indirectly connected receivers.
B. Promiscuous mode must be enabled in IGMP.
C. Promiscuous mode must be disabled in IGMP.
D. DVMRP protocol must be configured.

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:

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: C
Section: (none)

Explanation

Explanation/Reference:

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.
```
[edit]
user@router# show class-of-service
rewrite-rules {
    exp traffic-class {
        import default;
        forwarding-class expedited-forwarding {
            loss-priority low code-point 111;
        }
    }
}
```

B.
```
[edit]
user@router# show class-of-service
rewrite-rules {
    exp traffic-class {
        import rewrite-rule best-effort;
        import rewrite-rule expedited-forwarding;
        import rewrite-rule assured-forwarding;
        import rewrite-rule network-control;
        forwarding-class expedited-forwarding {
            loss-priority low code-point 111;
        }
    }
}
```

C.
```
[edit]
user@router# show class-of-service
rewrite-rules {
    exp traffic-class {
        import best-effort;
        import assured-forwarding;
        import network-control;
        forwarding-class expedited-forwarding {
            loss-priority low code-point 111;
        }
    }
}
```

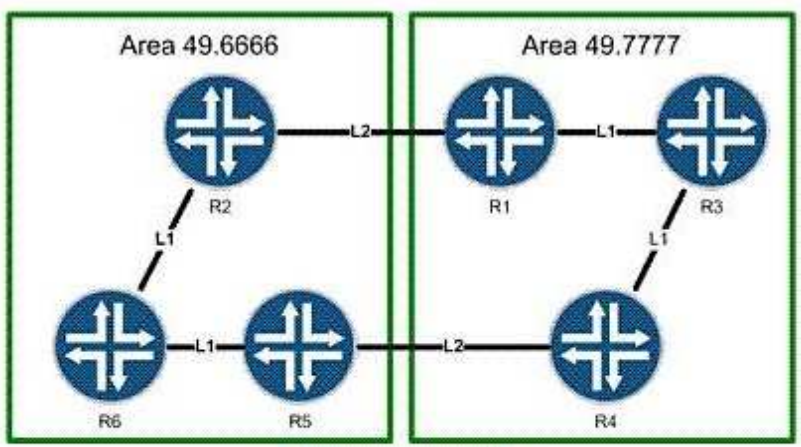
D.
```
[edit]
user@router# show class-of-service
rewrite-rules {
    exp traffic-class {
```

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

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:

QUESTION 15
Click the Exhibit button.



Based on the exhibit, what do you expect to find in the configuration on R1 and R4?

A. a policy leaking level 1 routes into level 2
B. a policy leaking level 2 routes into level 1
C. a policy setting the attached bit on level 2 routes
D. a policy setting the attached bit on level 1 routes

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:

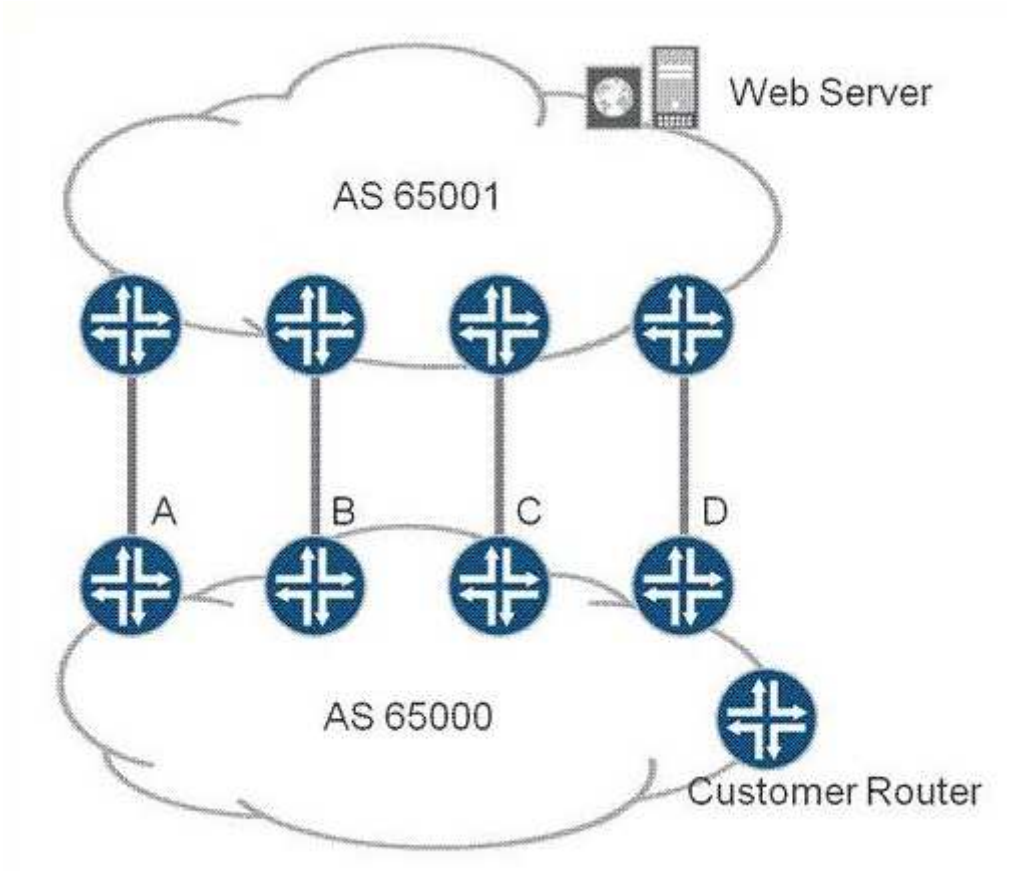
QUESTION 16
You have assigned target:65432:100 as the route target for Customer A's BGP Layer 2 VPN. The PE1 router VRF is configured with vrf-target export target:65432:100.Which configuration on PE2 correctly assigned Customer A's routes to their VRF?

A. vrf-target target:65432:100
B. route-target target:65432:100
C. vrf-target export target:65432:100
D. route-target export target:65432:100

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:

QUESTION 17
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)?

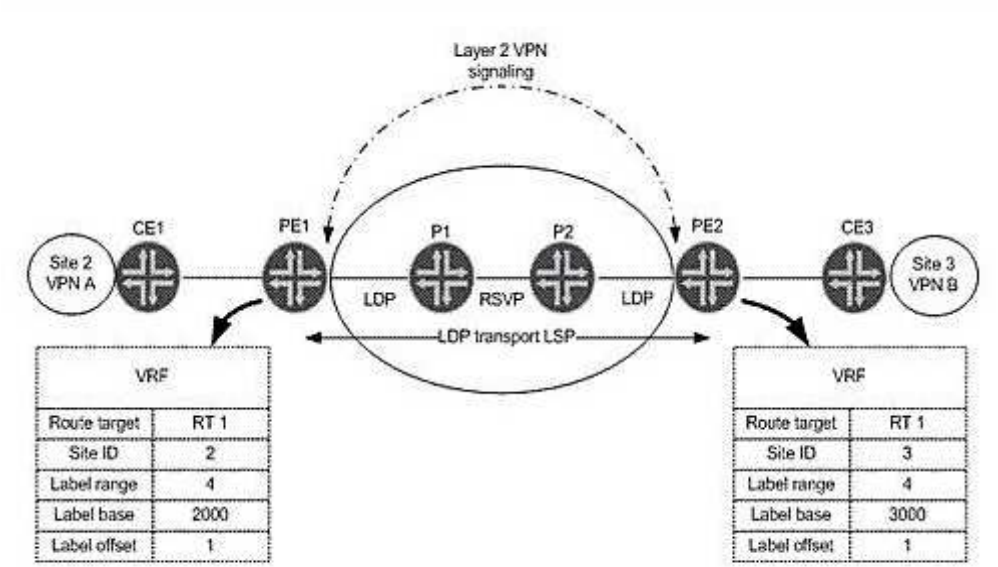
A. Router A
B. Router B

C. Router C
D. Router D

Correct Answer: D
Section: (none)
Explanation

Explanation/Reference:

QUESTION 18
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:

QUESTION 19
Click the Exhibit button.

```
user@PE1> show bgp neighbor | match nlri
  NLRI for restart configured on peer: inet-unicast inet-vpn-unicast
  NLRI advertised by peer: inet-unicast
  NLRI for this session: inet-unicast
  NLRI that peer supports restart for: inet-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

user@PE2> show bgp neighbor | match nlri
  NLRI for restart configured on peer: inet-unicast
  NLRI advertised by peer: inet-unicast inet-vpn-unicast
  NLRI for this session: inet-unicast
  NLRI that peer supports restart for: inet-unicast inet-vpn-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
```

Two PE routers in your Layer 3 VPN are not advertising customer VPN routes to each other. Referring to the output in the exhibit, which configuration parameter is missing?

A. family inet on PE1
B. family inet on PE2
C. family inet-vpn on PE1
D. family inet-vpn on PE2

Correct Answer: D
Section: (none)
Explanation

Explanation/Reference:

QUESTION 20
IS-IS is configured to support both IPv4 and IPv6 routing. Which statement is true?

A. Separate IPv4 and IPv6 hellos will be sent.
B. IPv6 will have a separate link-state database.
C. IS-IS v6 support must be enabled under protocols isis.
D. IS-IS sends IPv6 topology information as new TLVs in existing LSPs.

Correct Answer: D
Section: (none)
Explanation

Explanation/Reference:

QUESTION 21
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:

QUESTION 22

You have been asked to make a configuration which inherits the statements in a predefined configuration group. What will accomplish this?

A.
```
groups {
    group-name {
        configuration-data;
    }
}
```

B.
```
apply-groups <apply-group-name>;
```

C.
```
apply-macro <apply-macro-name>;
```

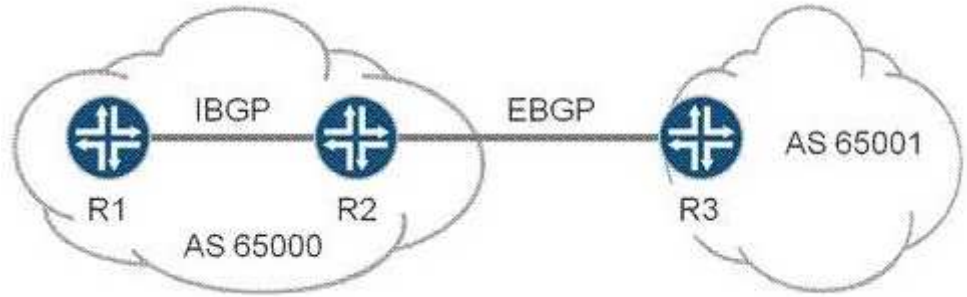
D.
```
event-options {
    event-script {
        file file-name;
    }
}
```

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

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:

QUESTION 23
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:

QUESTION 24
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#
```

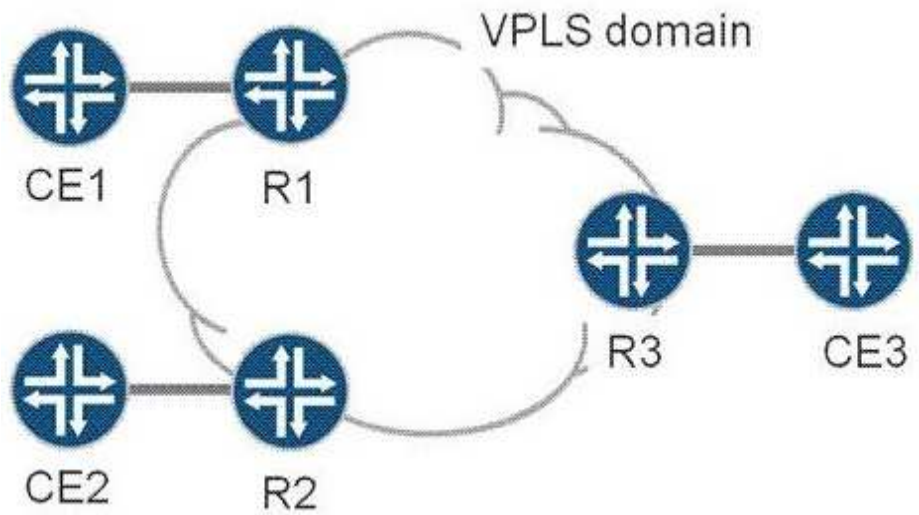
Based on the output shown in the exhibit, which statement is correct?

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:

QUESTION 25
Click the Exhibit button.



CE1, CE2, and CE3 are part of a single VPLS VPN. R1, R2, and R3 are PEs in the provider network, and have just been powered on. The VPLS domain has converged, and frames have passed between all CEs in the last minute. An Ethernet frame has just arrived at R3 from CE3. It has a source MAC address of CE3 and a destination MAC address of CE1.What does R3 do with the Ethernet frame?

A. Drops the packet as the destination MAC address is not for R3.
B. Drops the packet as the destination MAC address is not in R3's MAC table.
C. Forwards the packet to R1 only.
D. Forwards the packet to R1 and R2.

Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:

QUESTION 26
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:

QUESTION 27
What is a limitation of LDP?

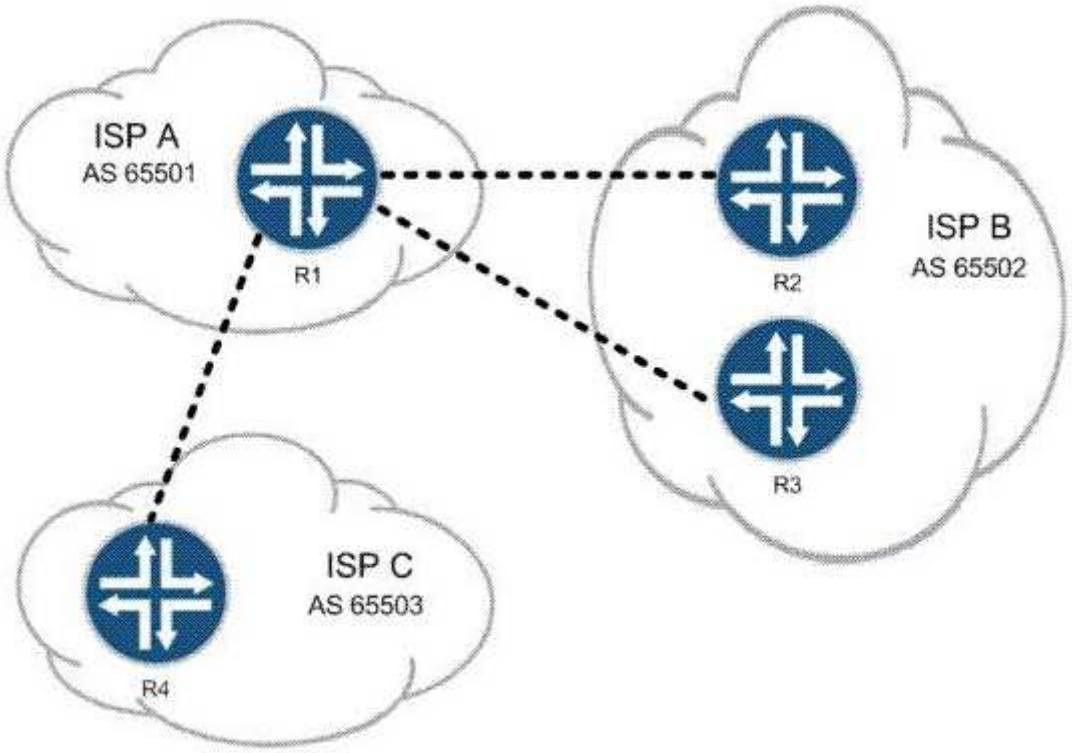
A. Traffic must follow explicitly configured paths.
B. It requires a full mesh of LSPs throughout the network.
C. It requires a traffic engineering database (TED).

D. It does not support traffic engineering.

Correct Answer: D
Section: (none)
Explanation

Explanation/Reference:

QUESTION 28
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.

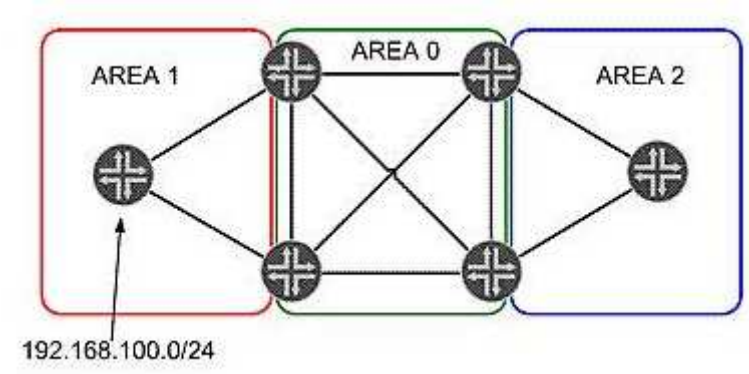
Referring to the exhibit, which two methods could you use? (Choose two.)

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:

QUESTION 29
Click the Exhibit button.



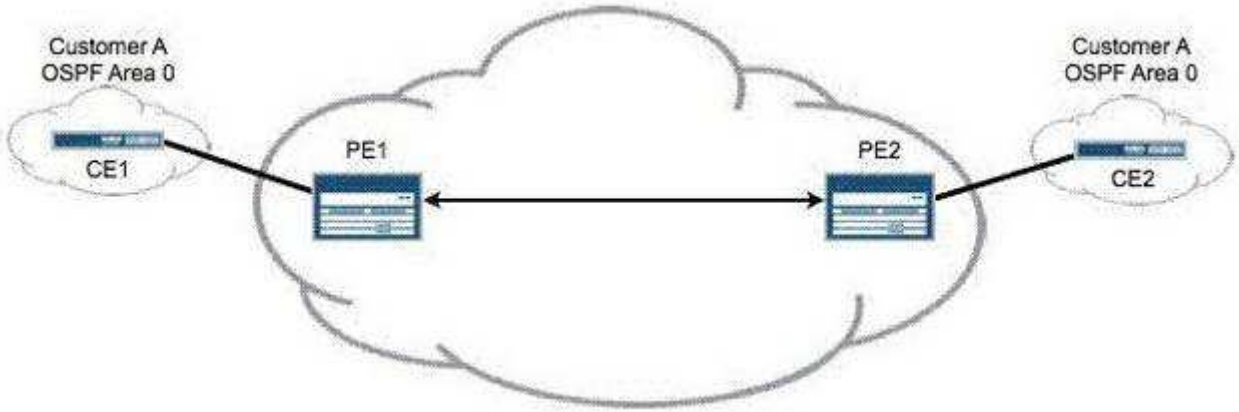
In the exhibit, Area 1 and Area 2 are configured as not-so-stubby areas. RIP network 192.168.100.0/24 is redistributed into OSPF in Area 1.Which three statements are true? (Choose three.)

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:

QUESTION 30
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:

QUESTION 31
Click the Exhibit button.

```
customer-vpn {
    instance-type vrf;
    interface ge-0/0/0.0;
    route-distinguisher 172.16.1.1:1;
    vrf-target target:65000:100;
}
```

You are configuring a new PE router in your Layer 3 VPN. A remote PE router is using the configuration shown in the exhibit. Which configuration is needed to receive customer-vpn routes from the remote PE?

A.
```
customer-vpn {
    instance-type vrf;
    interface ge-0/0/1.0;
    route-distinguisher 172.16.1.2:1;
    vrf-target {
        export target:65000:100;
        import target:65000:200;
    }
}
```

B.
```
customer-vpn {
    instance-type vrf;
    interface ge-0/0/1.0;
    route-distinguisher 172.16.1.2:1;
    vrf-target {
        export target:65000:200;
        import target:65000:200;
    }
}
```

C.
```
customer-vpn {
    instance-type vrf;
    interface ge-0/0/1.0;
    route-distinguisher 172.16.1.2:1;
    vrf-target target:65000:100;
}
```

D.
```
customer-vpn {
    instance-type vrf;
    interface ge-0/0/1.0;
    route-distinguisher 172.16.1.2:1;
    vrf-target target:65000:200;
}
```

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

Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:

QUESTION 32
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    0xcfbc      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:

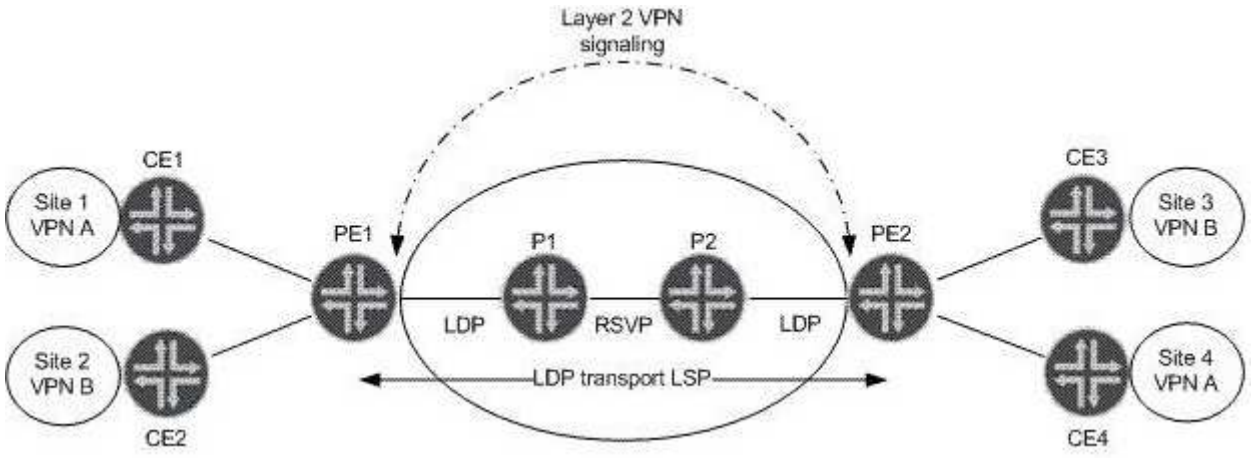
QUESTION 33
Which two statements describe advantages of using BGP for VPLS signaling instead of LDP signaling? (Choose two.)

A. There is no need for MPLS signaling protocol.
B. There is a well-defined scaling hierarchy.
C. There is a separation of signaling from other services.
D. There is auto discovery.

Correct Answer: BD
Section: (none)
Explanation

Explanation/Reference:

QUESTION 34
Click the Exhibit button.



A LDP Layer 2 circuit is shown for VPN A and VPN B. LDP tunneling over RSVP is activated on P1 and P2. Referring to the exhibit, which statement is true about the LDP Layer 2 circuit?

A. MAC learning is needed and using the inner VPN label between PE1 and PE2 for VPN A or VPN B.
B. Targeted LDP sessions are established between PE1, P1 and P2, PE2.
C. Label stitching must be configured on P1 and P2 for end to end transport LSPs.
D. LDP must be enabled on the loopback interfaces of PE1 and PE2.

Correct Answer: D
Section: (none)
Explanation

Explanation/Reference:

QUESTION 35
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/TCC    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:

QUESTION 36
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
  Explct 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 Explct 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?

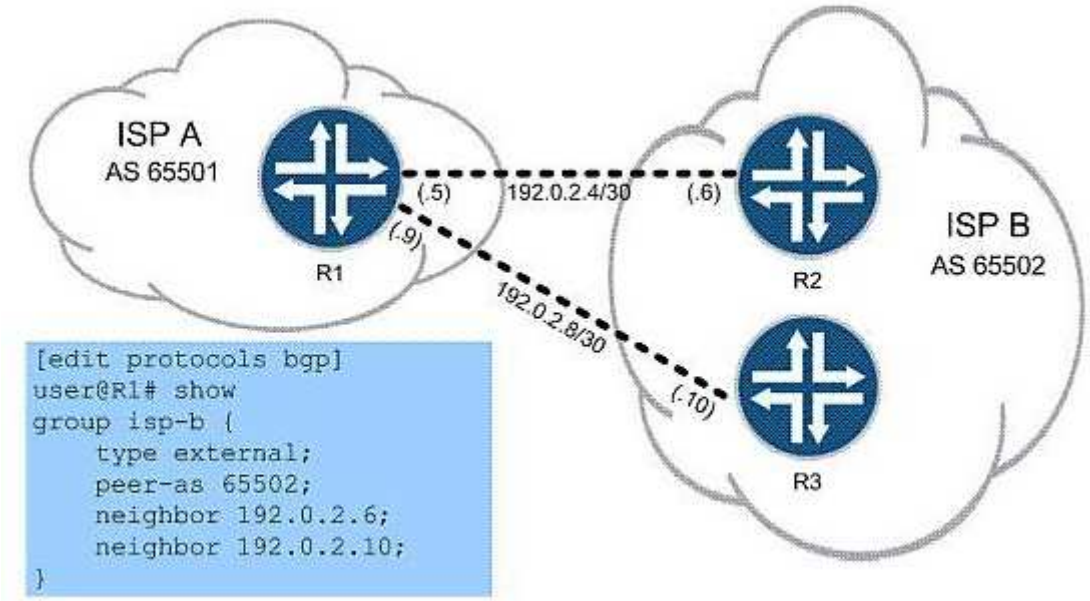
A. link-protection
B. fast-reroute
C. node-link-protection
D. bypass

Correct Answer: B

Section: (none)
Explanation

Explanation/Reference:

QUESTION 37
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 to ISP B's network. Which command do you use to finish the configuration?

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

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:

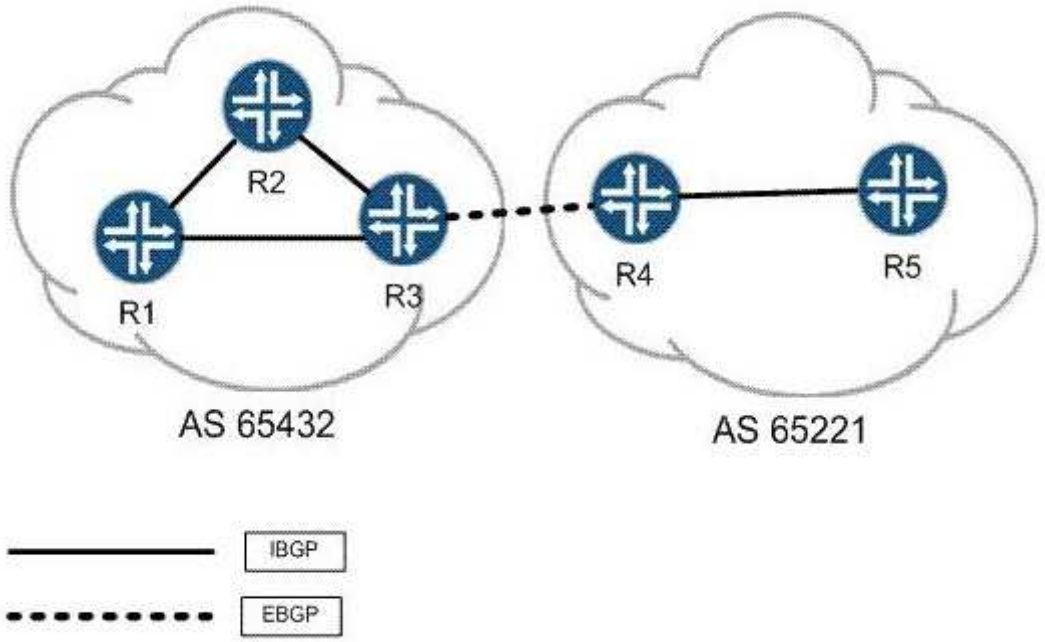
QUESTION 38
In an interdomain multicast deployment scenario, an RP1 is in AS1 and an RP2 is in AS2. MSDP is configured between RP1 and RP2.In which routing table on RP1 are source-active messages (SAs) received from RP2 by default?

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

Correct Answer: D
Section: (none)
Explanation

Explanation/Reference:

QUESTION 39
Click the Exhibit button.



R3 and R4 want to establish an EBGP session between each other's loopback addresses. They have each configured static routes to the other's loopback address and can ping from loopback to loopback. Their EBGP session is configured with correct neighbor and local addresses. The correct AS numbers have been specified at the [routing-options] hierarchy as well. Considering the topology in the exhibit, which statement is true?

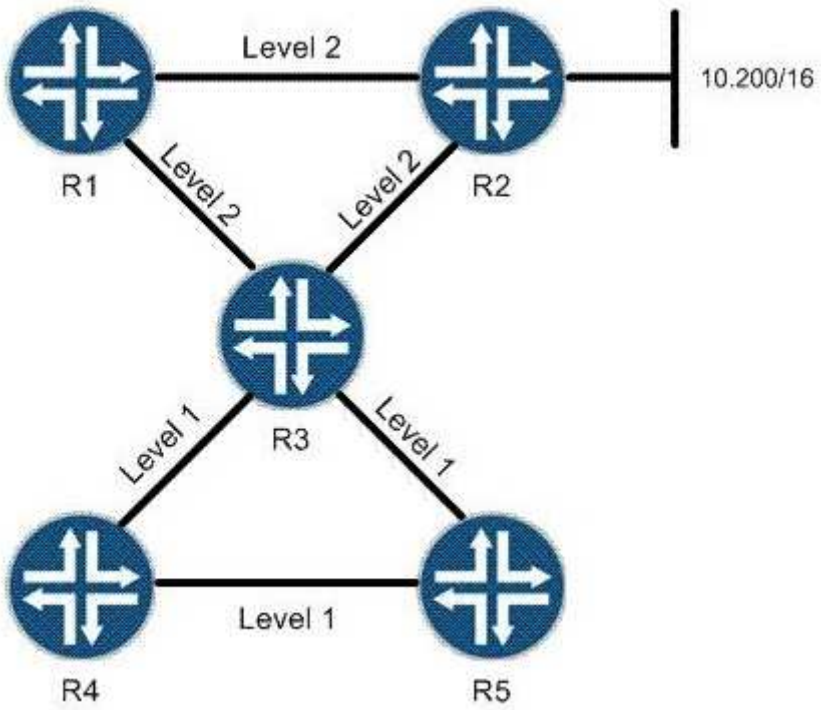
A. BGP's protocol preference must be adjusted to be lower than protocol static for the session to establish.
B. Each side must configure multipath for the session to establish.
C. Each peer must specify a local-as within their EBGP configuration for the session to establish.
D. Each peer must configure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

Correct Answer: D
Section: (none)
Explanation

Explanation/Reference:

QUESTION 40

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:

QUESTION 41
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:

QUESTION 42
What is the purpose of the no-cspf command?

A. to successfully signal the LSP across the network regardless of constraints
B. to delete the CSPF database
C. to ignore OSPF when calculating the ERO
D. to successfully signal the LSP only if the default IGP path (or named path) meets all constraints

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:

QUESTION 43
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:

QUESTION 44
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 advertising-protocol bgp 172.16.1.2


user@PE1> show route receive-protocol bgp 192.168.4.1

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

customer-vpn.inet.0: 6 destinations, 6 routes (2 active, 0 holddown, 4 hidden)

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

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

bgp.l3vpn.0: 4 destinations, 4 routes (0 active, 0 holddown, 4 hidden)
```

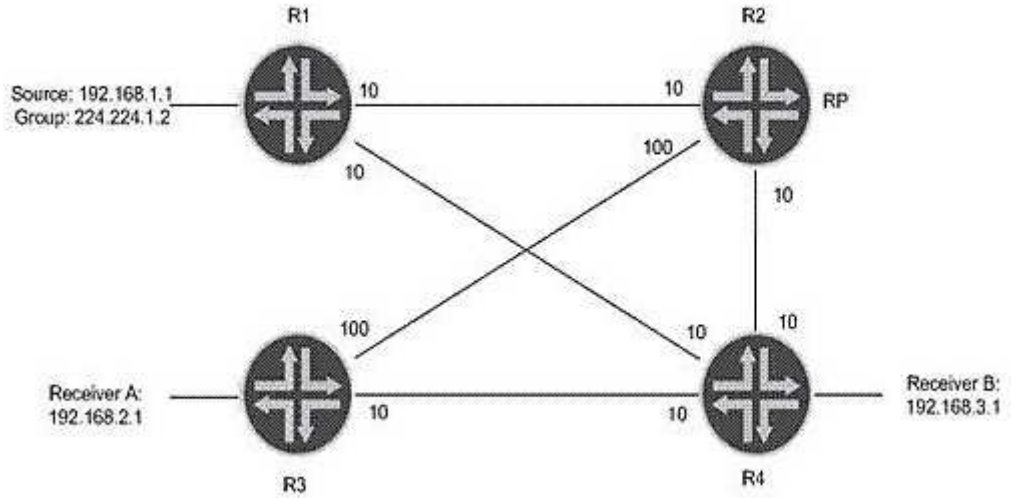
Customer A is complaining that routes advertised from the CE2 router are not being received on the CE1 router. The physical topology of the network is CE1-PE1-PE2-CE2. The CE1-PE1 subnet is 172.16.1.0/24. The CE2-PE2 subnet is 172.16.2.0/24. PE1's loopback is 192.168.3.1 and PE2's loopback is 192.168.4.1.Referring 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: A
Section: (none)
Explanation

Explanation/Reference:

QUESTION 45
Click the Exhibit button.



In the exhibit, what happens if the source starts sending multicast traffic toward R1 and there are receivers registered at the RP?

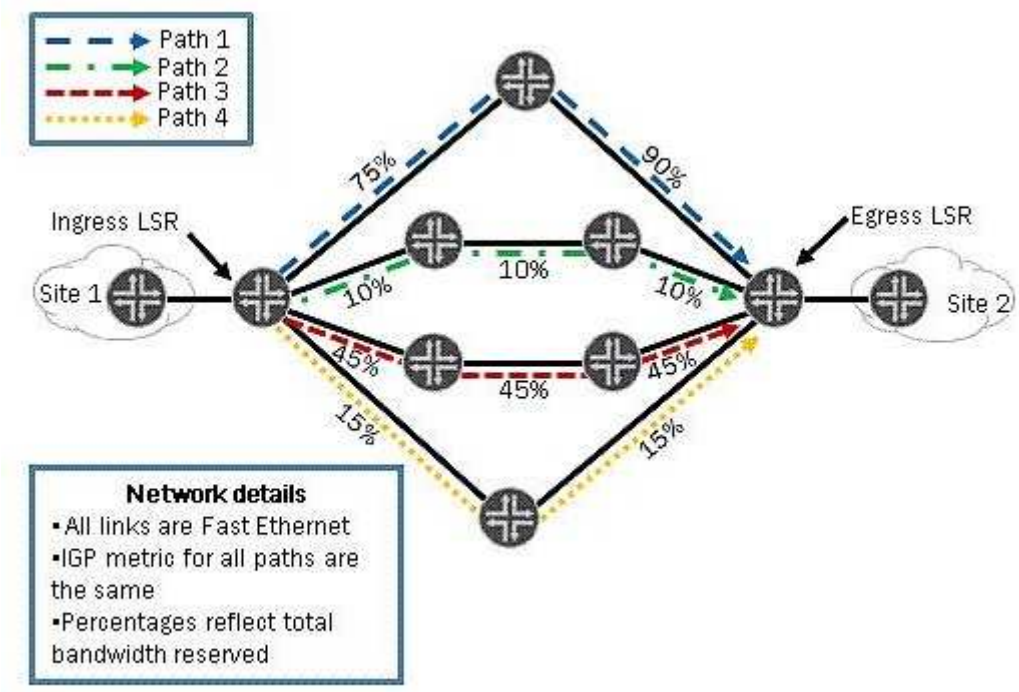
A. R1 encapsulates the multicast packets into a PIM register multicast packet.
B. R1 encapsulates the multicast packets into PIM join unicast messages.
C. R1 forwards the multicast packets on the S,G tree towards the RP.

D. R1 tunnels the multicast packets in PIM register messages toward the RP.

Correct Answer: D
Section: (none)
Explanation

Explanation/Reference:

QUESTION 46
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:

Topic 2, Volume B

QUESTION 1
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:

QUESTION 2
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)
```

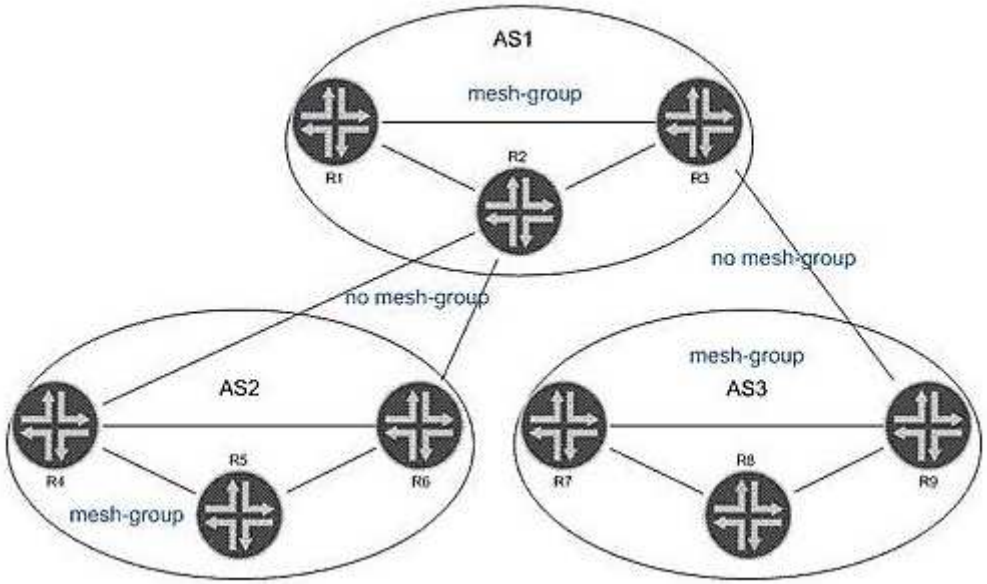
Customer A is complaining that routes advertised from the CE2 router are not being received on the CE1 router. The physical topology of the network is CE1-PE1-PE2-CE2. The CE1-PE1 subnet is 172.16.1.0/24. The CE2-PE2 subnet is 172.16.2.0/24. PE1's loopback is 192.168.3.1 and PE2's loopback is 192.168.4.1.Referring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

QUESTION 3
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:

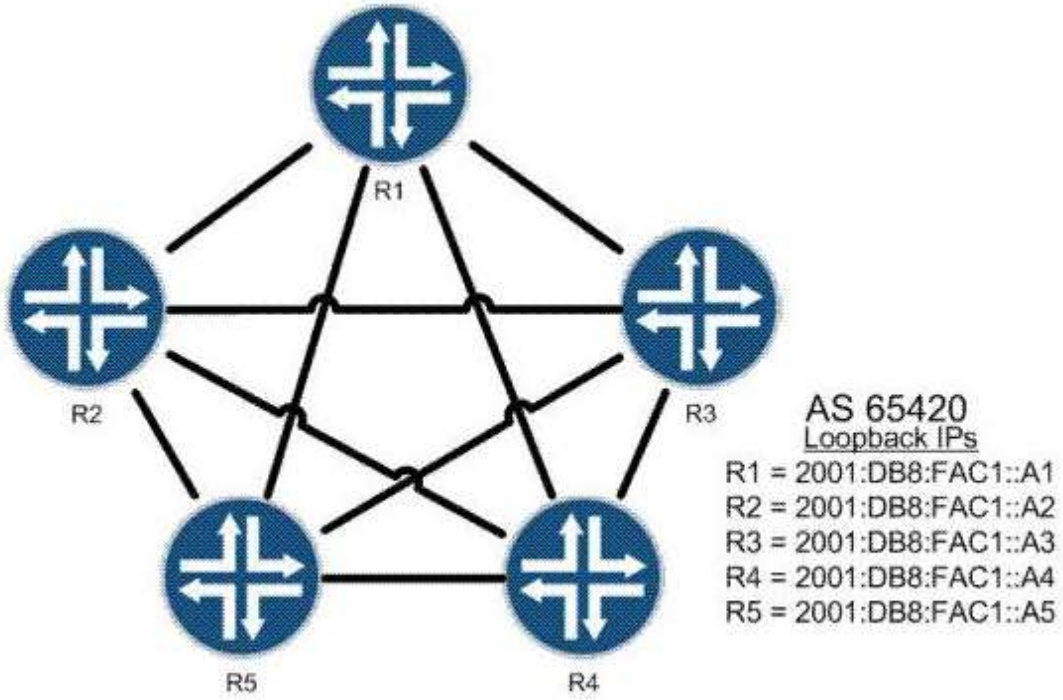
QUESTION 4
What does the Junos command advertise-inactive allow?

A. OSPF inactive routes to be advertised using BGP
B. inactive and hidden BGP routes to be redistributed into OSPF
C. the best BGP route to be re-advertised by BGP, even when it is not the best route
D. the second-best BGP route to be re-advertised by BGP, to back up the best BGP route

Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:

QUESTION 5
Click the Exhibit button.



The routers shown in the exhibit are connected in a full BGP mesh. R1 is the route reflector and R2 through R5 are clients. R3 should only receive one copy of all routes sent from R4.Which configuration is valid?

A.
```
[edit protocols bgp]
root@R2# show
group AS65420 {
    type internal;
    local-address 2001:db8:fac1::a2;
    cluster 10.1.1.1;
    neighbor 2001:db8:fac1::a1;
    neighbor 2001:db8:fac1::a3;
    neighbor 2001:db8:fac1::a4;
    neighbor 2001:db8:fac1::a5;
}
```

B.
```
[edit protocols bgp]
root@R2# show
group AS65420 {
    type internal;
    local-address 2001:db8:fac1::a2;
    no-client-reflect;
    neighbor 2001:db8:fac1::a1;
    neighbor 2001:db8:fac1::a3;
    neighbor 2001:db8:fac1::a4;
    neighbor 2001:db8:fac1::a5;
}
```

C.
```
[edit protocols bgp]
root@R1# show
group AS65420 {
    type internal;
    local-address 2001:db8:fac1::a1;
    cluster 10.1.1.1;
    no-client-reflect;
    neighbor 2001:db8:fac1::a2;
    neighbor 2001:db8:fac1::a3;
    neighbor 2001:db8:fac1::a4;
    neighbor 2001:db8:fac1::a5;
}
```

D.
```
[edit protocols bgp]
root@R1# show
group AS65420 {
    type internal;
```

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

Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:

QUESTION 6
You manage an MPLS network. You are asked to classify traffic using the EXP bits from ingress to egress. What will allow you to accomplish this?

A. Configure explicit-null on the penultimate router.
B. Configure explicit-null on the egress router.
C. Configure implicit-null on the penultimate router.
D. Configure implicit-null on the egress router.

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:

QUESTION 7
Junos scripts can be written in which two languages? (Choose two.)

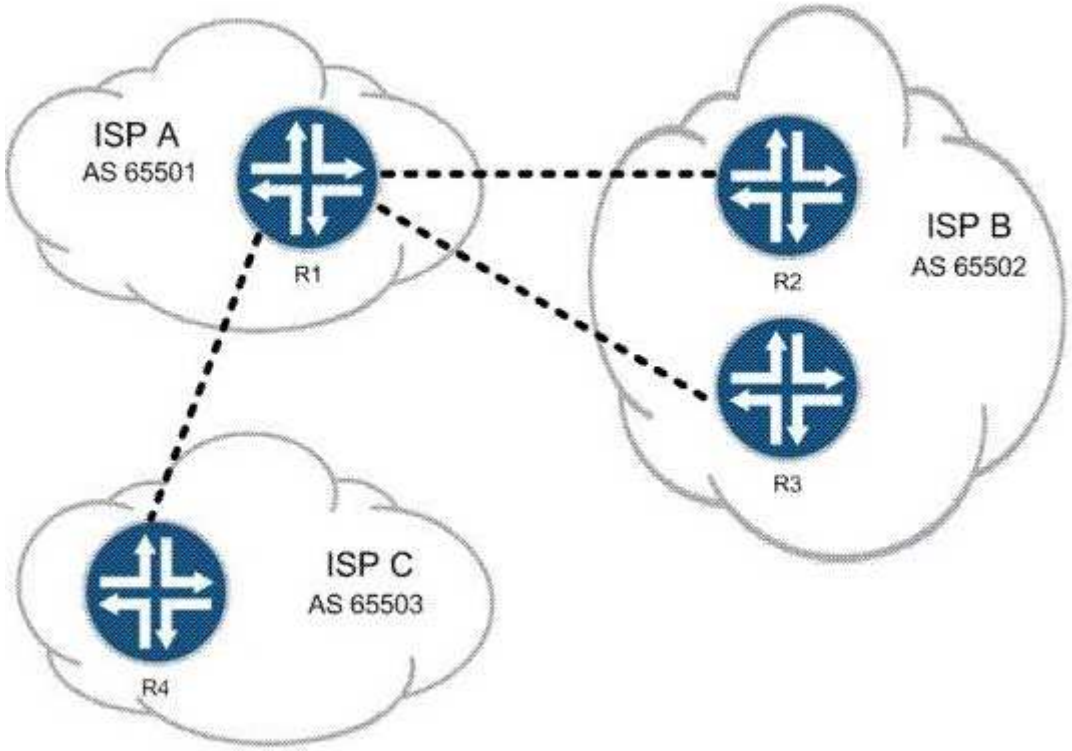
A. XLS
B. XML
C. XSLT
D. SLAX

Correct Answer: CD
Section: (none)

Explanation

Explanation/Reference:

QUESTION 8
Click the Exhibit button.



You are an employee of ISP A. You must not allow traffic between ISP B and ISP C to cross your network, but customers of ISP B and ISP C must be able to reach your customers. Referring to the exhibit, which two actions would do this? (Choose two.)

A. Use communities to identify and filter routes.
B. Use policy to filter routes on AS number.
C. Use origin code to identify and filter routes.

D. Use the well-known no-advertise community.

Correct Answer: AD
Section: (none)
Explanation

Explanation/Reference:

QUESTION 9
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/TCC    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: 192.168.5.1
    Interface                Type  St     Time last up          # Up trans
    ge-1/0/0.600(vc 7)       rmt   OL


user@PE1> 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/TCC    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   OL
```

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:

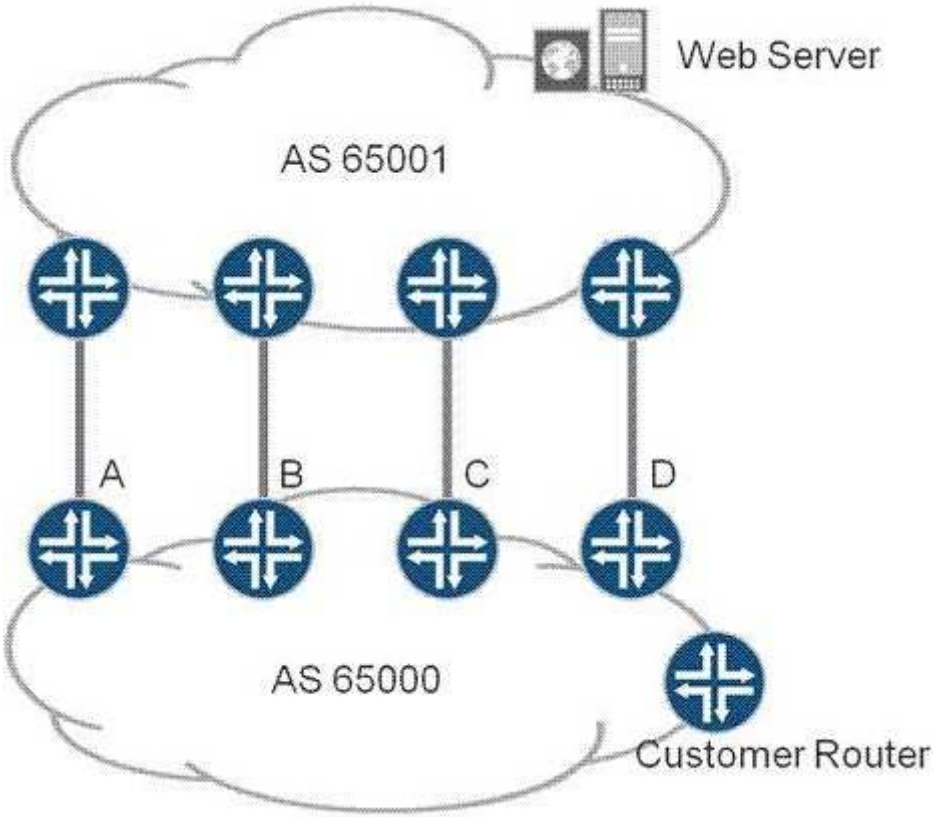
QUESTION 10
You are a network administrator in charge of configuring CoS for your network. Your network includes a voice application with strict latency requirements, so that any packets delayed by more than 75 ms are effectively useless. When configuring the scheduler for this application, which feature ensures that you do not waste buffer space?

A. rate-limit
B. adaptive
C. latency-limit
D. temporal

Correct Answer: D
Section: (none)
Explanation

Explanation/Reference:

QUESTION 11
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:

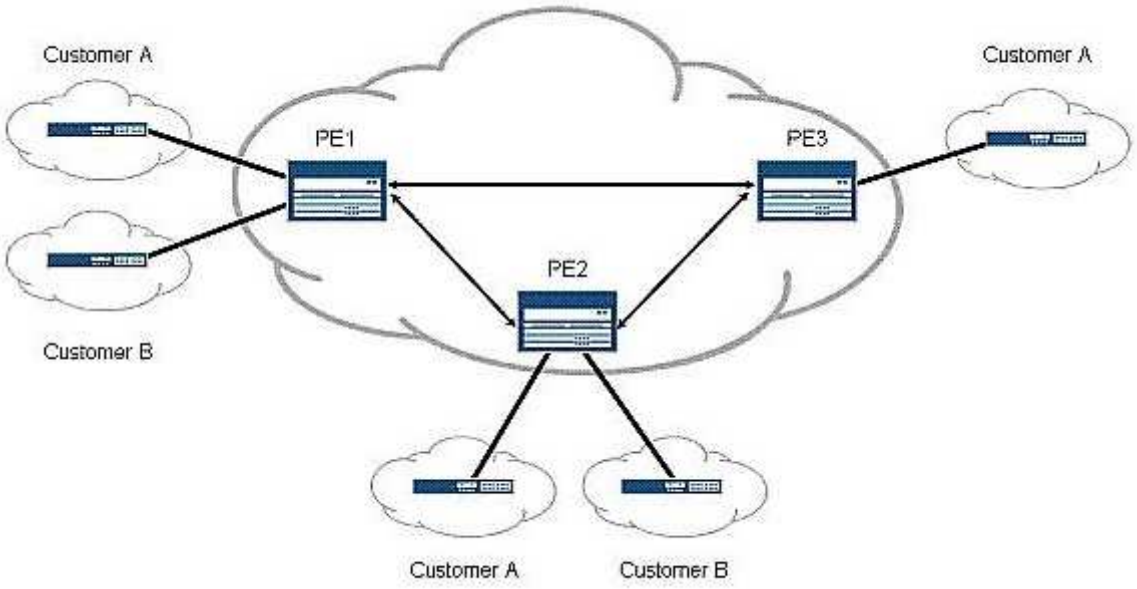
QUESTION 12
You just added route reflectors to your network and you find that all of your VPN routes are hidden on the route reflectors. What three solutions can you use to solve this? (Choose three.)

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:

QUESTION 13
Click the Exhibit button.



Given the existing operational network shown in the exhibit, you now want to add a remote site for Customer B to the PE3 router. This change should not have an effect on the existing BGP sessions between the PE routers. Which Layer 3 VPN scaling mechanism allows PE3 to begin receiving Customer B routes?

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

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:

QUESTION 14
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;
    }
}
```

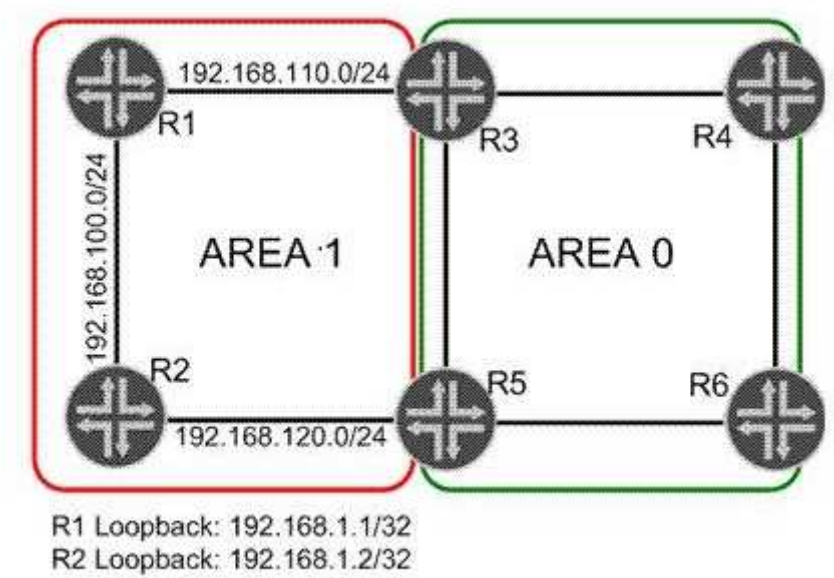
On your MX Series router, traffic using the critical scheduler is out of profile. All other data is currently in profile. Referring to the exhibit, which statement is correct?

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:

QUESTION 15
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.
```
[edit protocols ospf]
user@router# show
area 0.0.0.1 {
    area-range 192.168.0.0/16;
    area-range 192.168.1.1/32 restrict;
    area-range 192.168.1.2/32 restrict;
}
```

B.
```
[edit protocols ospf]
user@router# show
area 0.0.0.1 {
    area-range 192.168.0.0/16;
    area-range 192.168.1.1/32 exact;
    area-range 192.168.1.2/32 exact;
}
```

C.
```
[edit protocols ospf]
user@router# show
area 0.0.0.1 {
    area-range 192.168.0.0/16 {
        192.168.1.1/32 except;
        192.168.1.2/32 except;
    }
}
```

D.
```
[edit protocols ospf]
user@router# show
area 0.0.0.1 {
    area-range 192.168.100.0/24;
    area-range 192.168.110.0/24;
    area-range 192.168.120.0/24;
    area-range 192.168.1.1/32;
    area-range 192.168.1.2/32;
}
```

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

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:

QUESTION 16
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;
}
interfaces {
    ge-1/0/4 {
        unit 0 {
            classifiers {
                dscp classifierA;
            }
        }
    }
    ge-1/0/5 {
        scheduler-map sched-mapA;
    }
}
```

```
...

scheduler-maps {
    sched-mapA {
        forwarding-class low-priority scheduler low-pri-scheduler;
        forwarding-class medium-priority scheduler med-pri-scheduler;
        forwarding-class high-priority scheduler high-pri-scheduler;
        forwarding-class NC scheduler NC-scheduler;
    }
}
schedulers {
    low-pri-scheduler {
        transmit-rate 100m exact;
        buffer-size percent 30;
        priority low;
    }
    med-pri-scheduler {
        transmit-rate percent 10;
        buffer-size percent 10;
        priority medium-high;
    }
    high-pri-scheduler {
        transmit-rate 100m rate-limit;
        buffer-size percent 20;
        priority high;
    }
    NC-scheduler {
        transmit-rate percent 5;
        buffer-size percent 5;
        priority high;
    }
}
```

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 000101 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?

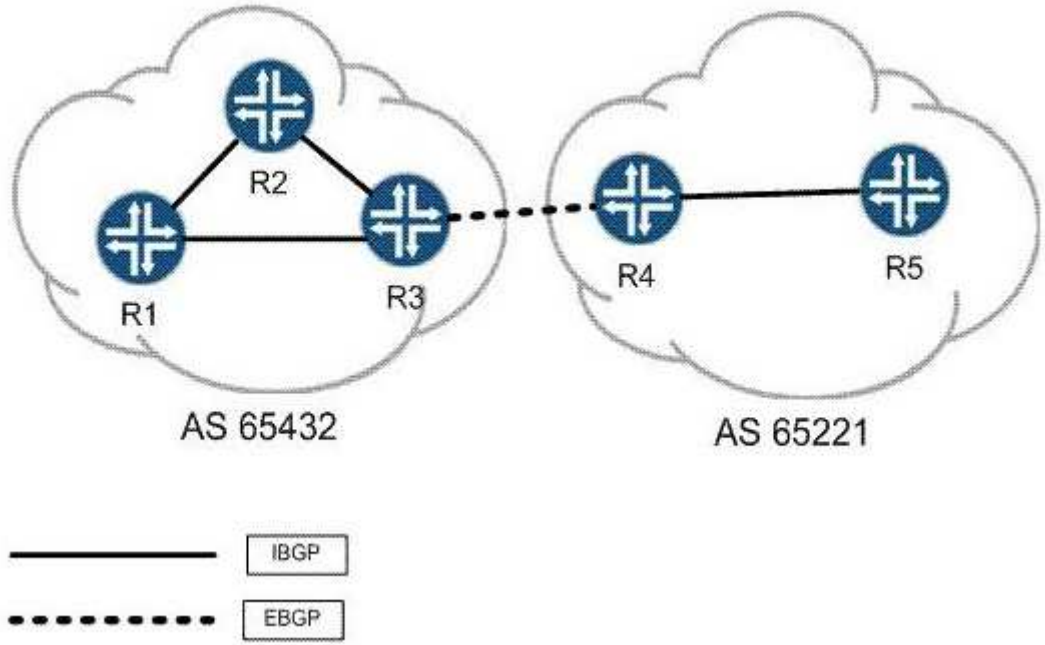
A. Traffic exceeding 100 Mbps is forwarded.
B. Traffic exceeding 100 Mbps is buffered.
C. Traffic exceeding 100 Mbps is redirected to a rate limiter.

D. Traffic exceeding 100 Mbps is dropped.

Correct Answer: D
Section: (none)
Explanation

Explanation/Reference:

QUESTION 17
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:

QUESTION 18
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:

QUESTION 19
Click the Exhibit button.

```
[edit]
jorg@pe1# 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:

QUESTION 20
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:

QUESTION 21
Click the Exhibit button.

R1 Configuration:

```
user@R1> show isis interface
IS-IS interface database:
Interface             L CirID Level 1 DR        Level 2 DR        L1/L2 Metric
ge-1/0/2.0            3   0x1 R1.00             R1.00                  10/10
lo0.0                 0   0x1 Passive           Passive                 0/0

root@R1> show configuration interfaces
ge-1/0/2 {
    mtu 1450;
    unit 0 {
        family inet {
            address 10.10.10.1/24;
        }
        family iso;
    }
}
lo0 {
    unit 0 {
        family inet {
            address 192.168.1.2/32;
        }
        family iso {
            address 49.0002.0000.0000.0002.00;
        }
    }
}

user@R1> show configuration protocols
isis {
    interface ge-1/0/2.0;
    interface lo0.0;
}
```

R2 Configuration

```
user@R2> show isis interface
IS-IS interface database:
Interface             L CirID Level 1 DR      Level 2 DR      L1/L2 Metric
ge-1/0/0.0            3   0x1 R2.00           R2.00                10/10
lo0.0                 0   0x1 Passive         Passive               0/0

root@R2> show configuration interfaces
ge-1/0/0 {
    mtu 1450;
    unit 0 {
        family inet {
            address 10.10.10.2/24;
        }
        family iso;
    }
}
lo0 {
    unit 0 {
        family inet {
            address 192.168.3.1/32;
        }
        family iso {
            address 49.0001.0000.0000.0001.00
        }
    }
}

user@R2> show configuration protocols
isis {
    interface ge-1/0/0.0;
    interface lo0.0;
}
```

R1 and R2 are directly connected using the interfaces shown in the exhibit. R1 can ping R2's interface, and R2 can ping R1's interface. The IS-IS adjacency will not come up. What is causing the adjacency to fail?

A. The correct levels are not configured under protocols isis.

B. The link MTU is too small to support IS-IS.
C. Authentication is not properly configured for the adjacency.
D. Both routers are configured as the DR, causing a conflict.

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:

QUESTION 22
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.
```
ldp {
    egress-policy block-one;
    interface all;
}
policy-options {
    policy-statement block-one {
        term 1 {
            from {
                route-filter 10.10.255.6/32 exact reject;
            }
        }
        term 2 {
            then accept;
        }
    }
}
```

B.
```
ldp {
    export block-one;
    interface all;
}
policy-options {
    policy-statement block-one {
        term 1 {
            from {
                route-filter 10.10.255.6/32 exact reject;
            }
        }
        term 2 {
            then accept;
        }
    }
}
```

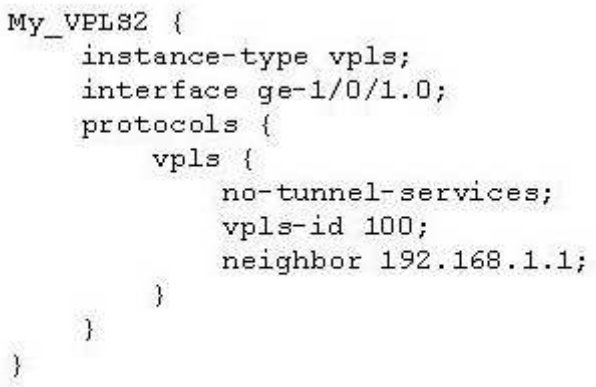
C.
```
ldp {
    import block-one;
    interface all;
}
policy-options {
```

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

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:

QUESTION 23
Click the Exhibit button.



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:

QUESTION 24
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
```

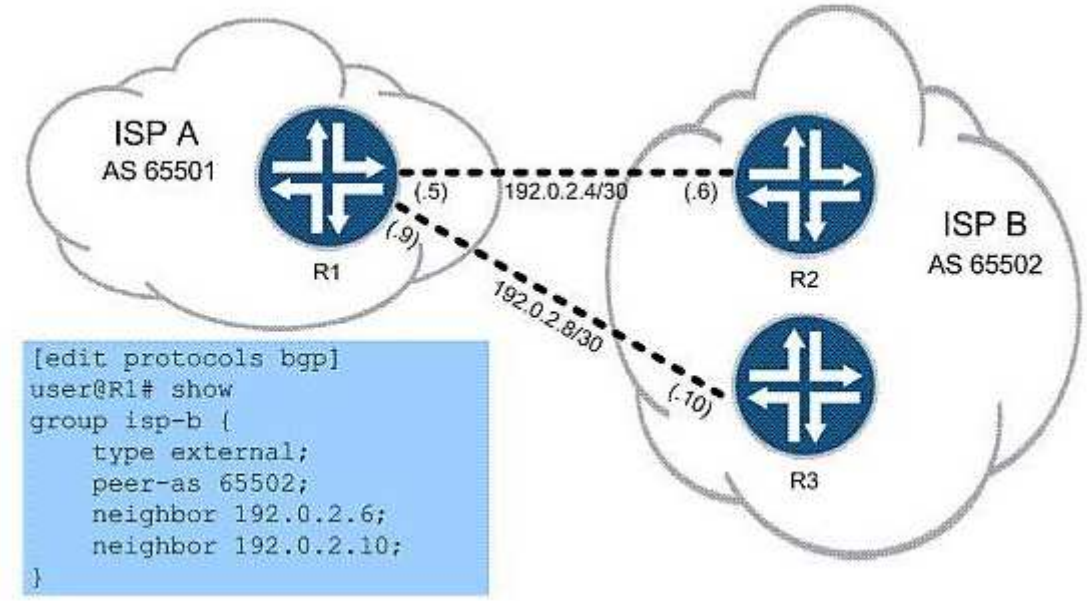
Given the output in the exhibit, which three statements are correct? (Choose three.)

A. PIM spare-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:

QUESTION 25
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:

QUESTION 26
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:

QUESTION 27
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;
        }
    }
}
```

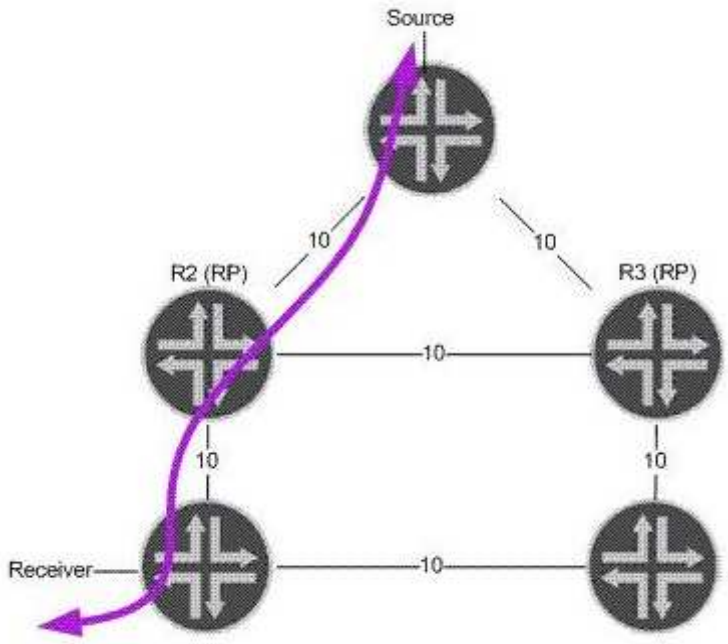
D.
```
interfaces {
    ge-1/0/0 {
        vlan-tagging;
        encapsulation vlan-ccc;
        unit 600 {
            encapsulation vlan-ccc;
            vlan-id 600;
        }
    }
}
```

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

Correct Answer: D
Section: (none)
Explanation

Explanation/Reference:

QUESTION 28
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:

QUESTION 29
Which two statements are true when configuring OSPF authentication? (Choose two.)

A. An OSPF link can support both simple password and MD5 authentication at the same time.
B. An MD5 password requires a key ID.
C. You can configure multiple MD5 passwords simultaneously on the same link.
D. If the MD5 password negotiation fails, you can configure OSPF to automatically use a simple password as a backup.

Correct Answer: BC
Section: (none)
Explanation

Explanation/Reference:

QUESTION 30
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:

QUESTION 31
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:

QUESTION 32
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
```

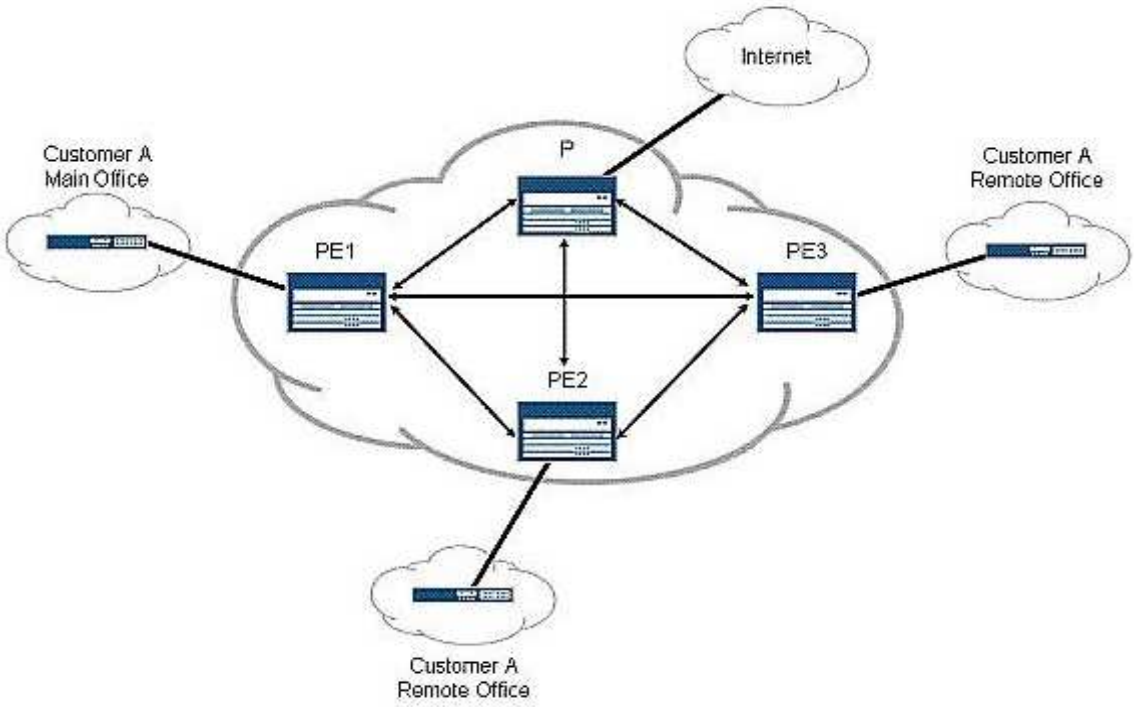
The exhibit contains a sample trace file of a BGP update message. Which two statements are true? (Choose two.)

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: AB
Section: (none)
Explanation

Explanation/Reference:

QUESTION 33
Click the Exhibit button.



In the exhibit, Customer A uses private RFC1918 addresses within its network. The customer wants to have all Internet access for its organization transit through the main office for security and NAT purposes. Each of the PE routers in your network contains Internet routes in the main instance routing table and is capable of provisioning both a VRF and a non-VRF interface to its attached CE router. Which router should be configured to accomplish the administrative goal of the customer?

A. P
B. PE1
C. PE2
D. PE3

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:

QUESTION 34
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.l3vpn.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                                       I
```

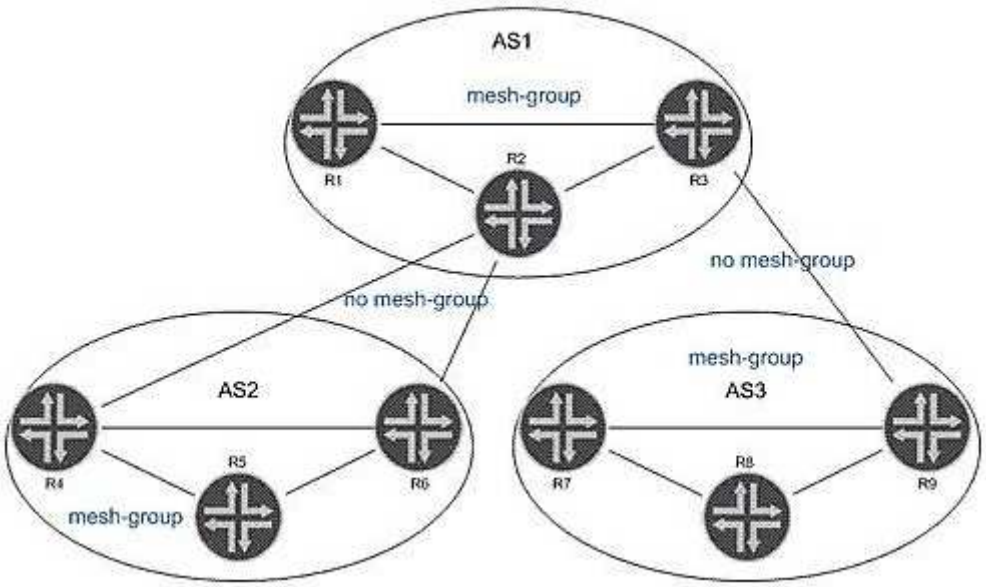
Customer A is complaining that routes advertised from the CE2 router are not being received on the CE1 router. The physical topology of the network is CE1-PE1-PE2-CE2. The CE1-PE1 subnet is 172.16.1.0/24. The CE2-PE2 subnet is 172.16.2.0/24. PE1's loopback is 192.168.3.1 and PE2's loopback is 192.168.4.1.Referring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

QUESTION 35
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:

QUESTION 36
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:

QUESTION 37
Click the Exhibit button.

```
[edit firewall three-color-policer policerA]
user@router# show
two-rate {
    color-aware;
    committed-information-rate 1m;
    committed-burst-size 500k;
    peak-information-rate 5m;
    peak-burst-size 1m;
}
```

Traffic is flowing through the policer as shown in the exhibit. The traffic has a throughput rate of 3 Mbps, and the burst size counter is at 1.5 MB. How is traffic affected?

A. Traffic has its PLP set to low.
B. Traffic has its PLP set to medium-low.
C. Traffic has its PLP set to medium-high.
D. Traffic has its PLP set to high.

Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:

QUESTION 38
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:

QUESTION 39
Click the Exhibit button.

```
routing-options {
    interface-routes {
        rib-group inet ifrg;
    }
    rib-groups {
        ifrg {
            import-rib [ inet.0 inet.2 ];
        }
        mcrg {
            export-rib inet.2;
            import-rib inet.2;
        }
    }
}
protocols {
    msdp {
        rib-group mcrg;
        group lab {
            peer 192.168.6.18 {
                local-address 192.168.6.17;
            }
        }
    }
    pim {
        dense-groups {
            224.0.1.39/32;
            224.0.1.40/32;
        }
        rib-group inet mcrg;
        rp {
            local {
                address 192.168.1.1;
            }
        }
        interface all {
            mode sparse-dense;
            version 1;
        }
    }
}
```

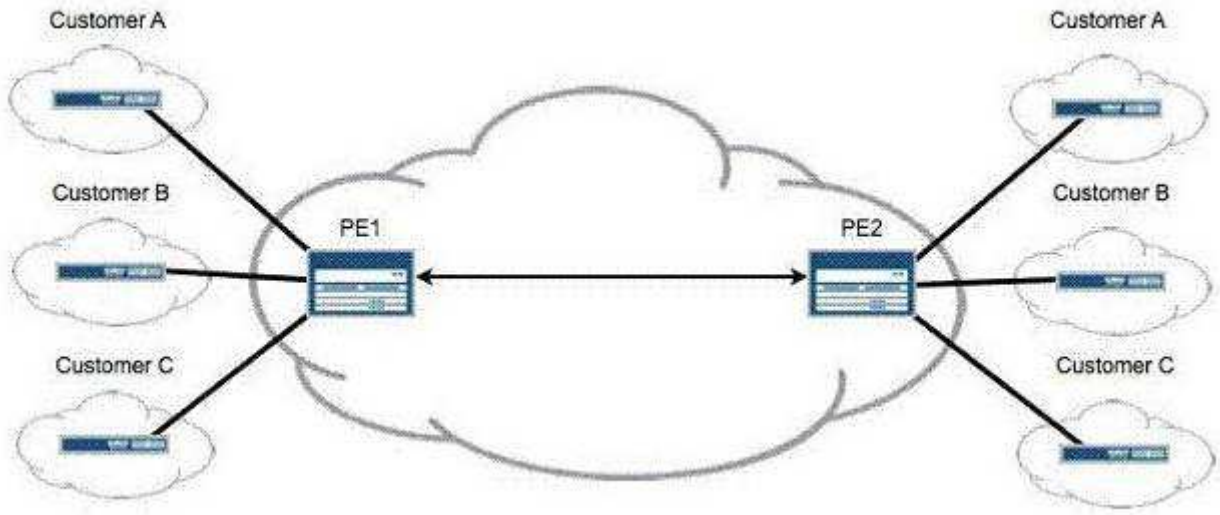
What is the significance of RIB groups, as shown in the exhibit?

A. RIB groups alter the multicast RPF check table to inet.0.
B. RIB groups alter the multicast RPF check table to inet.2.
C. RIB groups alter the multicast RPF check table to inet.4.
D. RIB groups alter the multicast RPF check table to inet.3.

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:

QUESTION 40
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?

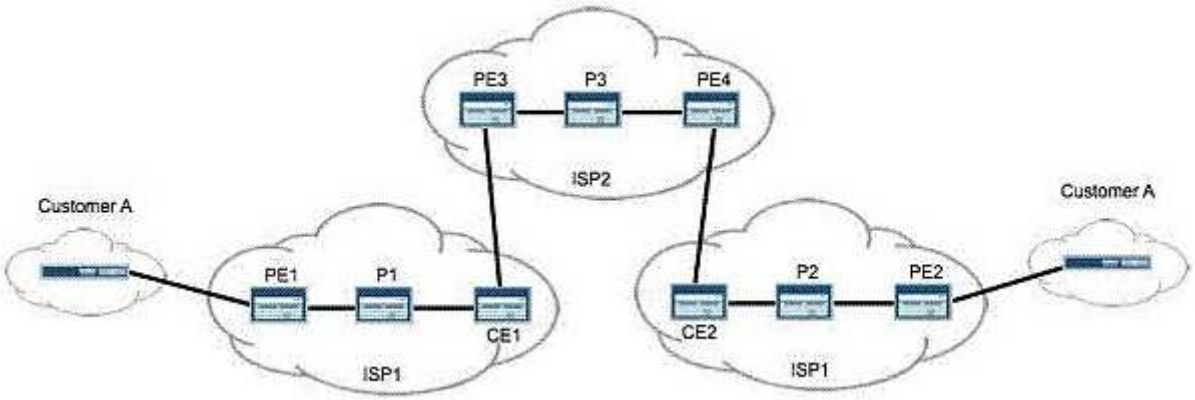
A. show route instance
B. show route summary
C. show route table bgp.l3vpn.0
D. show route table customer-c.inet.0

Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:

Topic 3, Volume C

QUESTION 1
Click the Exhibit button.



Customer A wants a Layer 3 VPN between their two sites. To support this, you purchase a carrier-of-carriers solution from ISP2. Referring to the topology in the exhibit, how many labels does PE1 push onto data packets destined for PE2?

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

Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:

QUESTION 2
Two of your customers have just merged into a single company. Because of time constraints, you have been asked to connect Customer A's BGP-signaled Layer 2 VPN with Customer B's LDP-signaled Layer 2 circuit using the interworking interface.
Which two statements are true? (Choose two).

A. You must have a tunnel PIC to create the interworking interface.
B. You must configure the Layer 2 interworking protocol.
C. The logical interworking interfaces must specify their logical peer units.
D. The Junos OS automatically links the interworking interface units.

Correct Answer: BC
Section: (none)
Explanation

Explanation/Reference:

QUESTION 3
In an interdomain multicast deployment scenario, RP1 is in AS1 and RP2 is in AS2. MSDP is configured between RP1 and RP2 A source in AS1 and a receiver in AS2 have just become active. What initially triggers RP1 to send source-active messages (SAs) to RP2?

A. A join-to-RP message is sent from RP2 to RP1.
B. A join-to-source message is sent from RP2 to RP1
C. A register message is received on RP1.
D. A register message is received on RP2.

Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:

QUESTION 4
Click the Exhibit button.

```
[edit protocols mpls]

user@Boston# show

label-switched-path Boston-to-Seattle {

     to 192.168.10.100;

     bandwidth 6g;

     priority 5 4;

}

label-switched-path Boston-to-Denver {

     to 192.168.10.200;

     bandwidth 6g;

     priority 4 4;

}

...
```

A network administrator has configured the LSPs shown in the exhibit on the ingress router of a 10-Gigabit Ethernet network
Which statement is true?

A. Both LSPs will establish and remain established.
B. The Boston-to-Denver LSP will establish and remain established.
C. The Boston-to-Seattle LSP will establish and remain established.
D. Neither LSP will remain established.

Correct Answer: B
Section: (none)

Explanation

Explanation/Reference:

QUESTION 5
What is the first step of the CSPF algorithm's pruning process?

A. Prune links with insufficient bandwidth.
B. Prune links that contain an excluded administrative group.
C. Prune links that do not contain an included administrative group.
D. Prune links that do not contain an administrative group.

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:

QUESTION 6
You are configuring CoS schedulers on an M Series router. For some queues, you want to limit throughput to the configured transmit rate, and buffer excess traffic. Which two transmission rate options can you use? (Choose two.)

A. exact
B. rate-limit
C. remainder
D. shaping-rate

Correct Answer: AD
Section: (none)
Explanation

Explanation/Reference:

QUESTION 7
You recently implemented an MSDP mesh group within your PIM-SM domain. Which two new behaviors can you expect? (Choose two.)

A. SA messages from peer ASs will now be received.
B. SA messages from group members will now require a peer-RPF check.
C. SA messages will no longer be forwarded to other members in the group.
D. SA messages from group members will no longer require a peer-RPF check.

Correct Answer: CD
Section: (none)
Explanation

Explanation/Reference:

QUESTION 8
A network uses IPv4 and IPv6 addressing. You must use only OSPFv3 as your IGP. Which configuration will advertise both IPv4 and IPv6 addresses to the network?

A.
```
[edit]
user@router# show protocols
ospf {
    area 0.0.0.0 {
        interface all;
    }
}
ospf3 {
    area 0.0.0.0 {
        interface all;
    }
}
```

B.
```
[edit]
user@router# show protocols
ospf3 {
     area 0.0.0.0 {
         family inet {
             interface all;
         }
         family inet6 {
             interface all;
     }
 }
```

C.
```
[edit]
user@router# show protocols
ospf3 {
     export ipv4-routes;
     area 0.0.0.0 {
         interface all;
    }
}

[edit]
user@router# show policy-options
policy-statement ipv4-routes {
     term get-ipv4 {
         from {
             family inet;
```

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

Correct Answer: D
Section: (none)
Explanation

Explanation/Reference:

QUESTION 9
Click the Exhibit button.

```
[edit]
user@router# show class-of-service
schedulers {
     top {
          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;
     }
     best-effort {
           transmit-rate percent 5;
           priority low;
     }
}
```

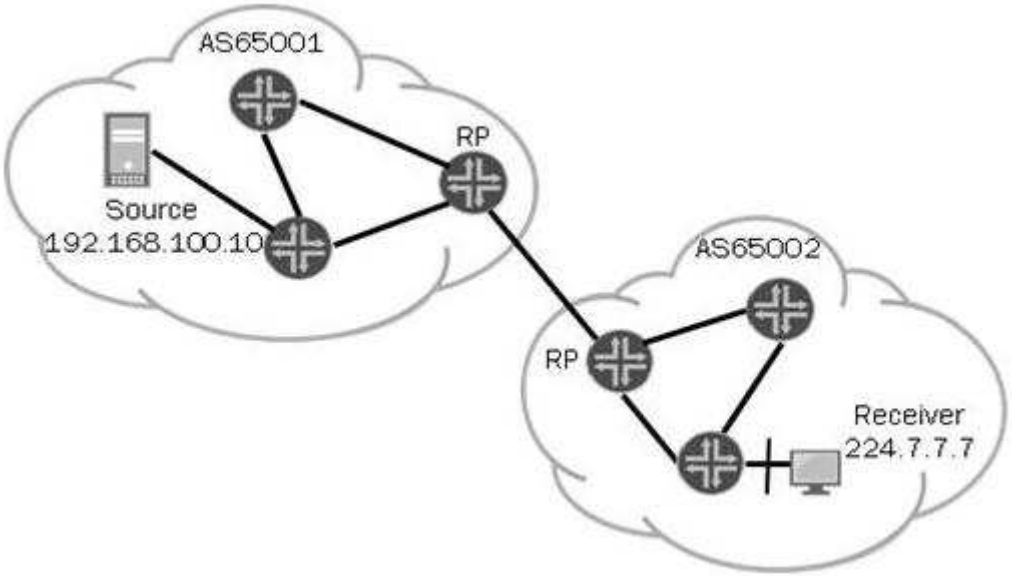
Traffic is flowing through an MX Series router. Traffic using the top and critical schedulers is out of profile, while all other traffic is currently in profile. Referring to the exhibit, which two statements are correct? (Choose two.)

A. The top queue is serviced before the best-effort queue.
B. The top queue is serviced after the best-effort queue.
C. The critical queue is serviced before the best-effort queue.
D. The critical queue is serviced after the best-effort queue.

Correct Answer: AD
Section: (none)
Explanation

Explanation/Reference:

QUESTION 10
Click the Exhibit button



Given the topology in the exhibit, which two requirements must be met to allow multicast traffic to flow from AS65001 to AS65002? (Choose two.)

A. MSDP sessions must exist between all routers in AS65001.
B. Source information must be relayed from AS65001 to AS65002.
C. A full mesh of MBGP peering sessions must be formed within AS65001.
D. A TCP session must be formed between the RPs in AS65001 andAS65002.

Correct Answer: BD
Section: (none)
Explanation

Explanation/Reference:

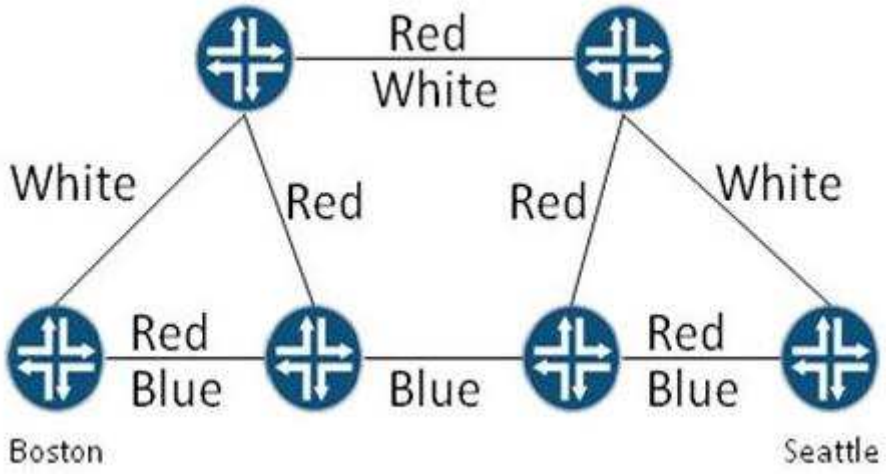
QUESTION 11
Which statement is true regarding the no-propagate-ttl feature?

A. Supported only by Junos devices
B. Configured on every LSR
C. Configured only on ingress LSR
D. Supported only on RSVP LSPs

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:

QUESTION 12
Click the Exhibit button.



On the network shown in the exhibit, a network administrator is attempting to bring up an LSP between Boston and Seattle using administrative groups. Which two of the following LSP configurations allow the LSP to establish? (Choose two.)

A.
```
[edit protocols mpls label-switched-path Boston-to-Seattle]
user@Boston# show
to 192.168.10.100;
admin-group {
     include-any White;
     exclude Red;
}
```

B.
```
[edit protocols mpls label-switched-path Boston-to-Seattle]
user@Boston# show
to 192.168.10.100;
admin-group include-all [ Red White Blue ];
```

C.
```
[edit protocols mpls label-switched-path Boston-to-Seattle]
user@Boston# show
to 192.168.10.100;
admin-group {
     include-any [ Red Blue ];
     include-all Blue;
}
```

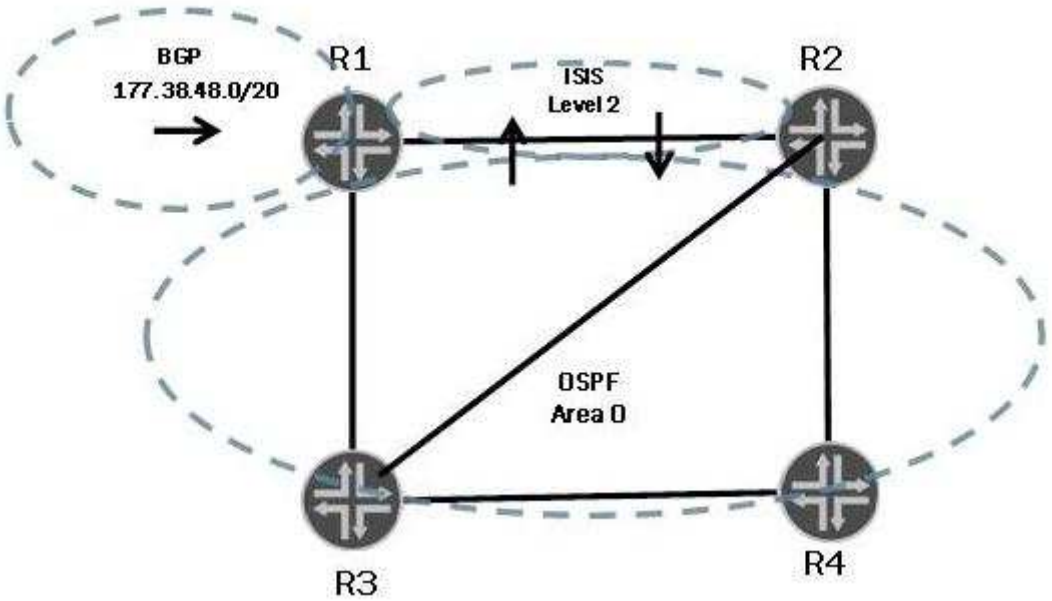
D.
```
[edit protocols mpls label-switched-path Boston-to-Seattle]
user@Boston# show
to 192.168.10.100;
admin-group {
     include-any Red;
     include-all Blue;
}
```

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

Correct Answer: CD
Section: (none)
Explanation

Explanation/Reference:

QUESTION 13
Click the Exhibit button.



In the exhibit, R1 is advertising a BGP route into both IS-IS and OSPF. There is mutual redistribution from R1 and R2 into both OSPF and IS-IS.
The following traceroute is performed on R4:

```
user@R4> traceroute 177.38.48.1 ttl 10
traceroute to 177.38.48.1 (177.38.48.1), 10 hops max, 40 byte packets
 1  R3 (67.176.0.21)    9.011 ms     9.690 ms     9.618 ms
 2  R1 (67.176.0.13)    7.742 ms    10.603 ms     6.200 ms
 3  R2 (67.176.0.10)   11.726 ms    12.128 ms    13.842 ms
 4  R4 (67.176.0.33)   10.740 ms    11.859 ms    10.632 ms
 5  R3 (67.176.0.21)   16.012 ms    13.542 ms    12.900 ms
 6  R1 (67.176.0.13)   13.780 ms    13.573 ms    13.220 ms
 7  R2 (67.176.0.10)   16.344 ms    11.528 ms    12.869 ms
 9  R3 (67.176.0.21)   12.624 ms    17.229 ms    14.596 ms
10 R1 (67.176.0.13)   21.244 ms    19.124 ms    15.726 ms
```

What is one way to fix the routing loop?

A. On R1:
```
[edit]
user@R1# set protocols bgp preference 145
```

B. On R1:
```
[edit]
user@R1# set protocols isis level 2 wide-metrics-only
```

C. On R4:
```
[edit]
user@R4# set protocols ospf external-preference 180
```

D. On all routers:
```
[edit]
user@router# set protocols ospf reference-bandwidth 10g
```

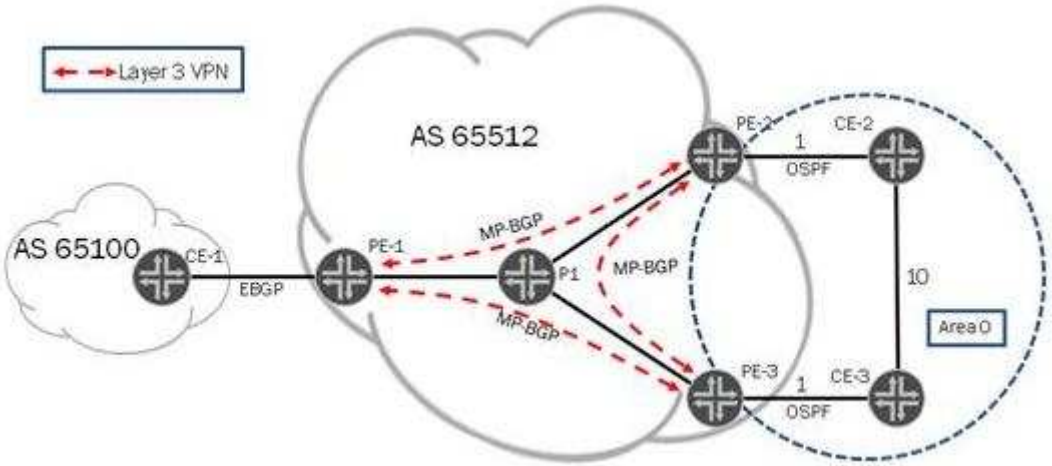
A. Option A
B. Option B

C. Option C
D. Option D

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:

QUESTION 14
Click the Exhibit button



You manage the network in the exhibit. Your customer contacts you and requests that OSPF traffic being routed between CE-2 and CE-3 use the VPN connection instead of the direct connection in its local network.
In addition to creating a sham link between PE-2 and PE-3, what step is required?

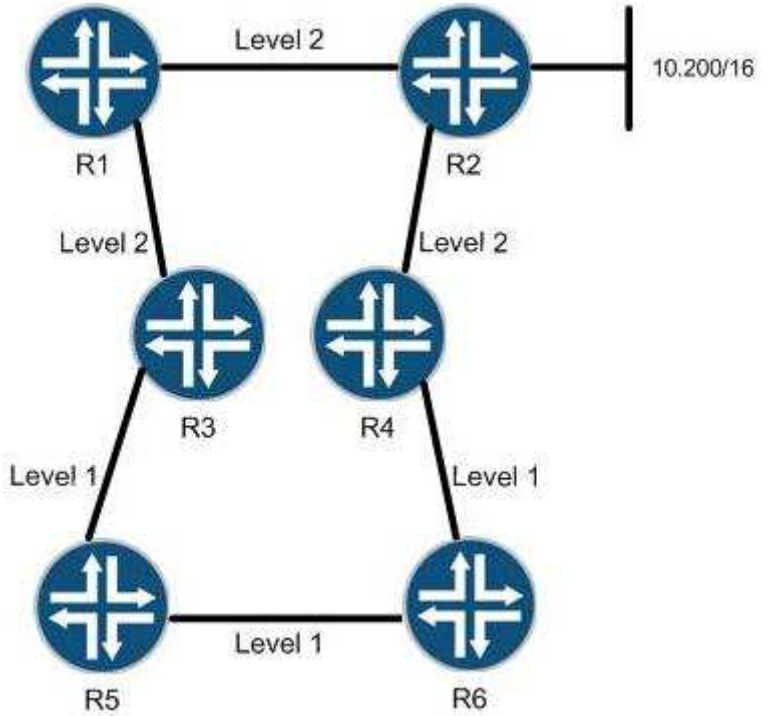
A. Set the sham link remote metric to be lower than 8.
B. Set the sham link local metric to be lower than 8.
C. Set the sham link preference to be lower than 8.
D. Set the sham link interface metric to be lower than 8.

Correct Answer: A
Section: (none)

Explanation

Explanation/Reference:

QUESTION 15
Click the Exhibit button



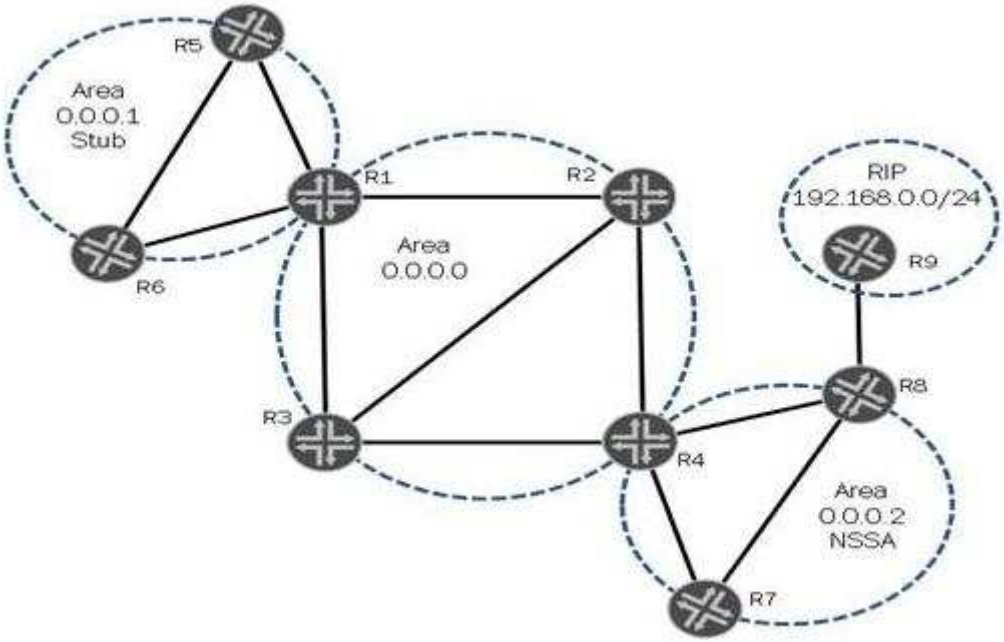
The 10.200/16 network is announced as an IS-IS route by R2 to its IS-IS neighbors. R3 and R4 are configured with an IS-IS export policy, which announces this route to R5 and R6.
Which statement is true?

A. When viewed on R5 the 10.200/16 route will be marked down.
B. When viewed on R5 the 10.200/16 route will be marked up.
C. The 10.200/16 route will not be visible on R5.
D. The 10.200/16 route will be marked with the overload bit.

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:

QUESTION 16
Click the Exhibit button.



In the exhibit, the RIP network 192.168.0.0/24 is redistributed into OSPF on R8
Which two statements are true? (Choose two.)

A. R4 receives the RIP network in a Type 7 LSA from R8.
B. R7 receives the RIP network in a Type 5 LSA from R4.
C. R2 receives the RIP network in a Type 7 LSA from R4.
D. R3 receives the RIP network in a Type 5 LSA from R4.

Correct Answer: AD
Section: (none)
Explanation

Explanation/Reference:

QUESTION 17
Click the Exhibit button.

The configuration excerpts shown below are applied to R1 and R2:

```
[edit protocols isis]
user@R1# show
level 2 disable;
interface all;

[edit protocols isis]
user@R2# show
interface all;
```

Based on the exhibit and the configurations above, what combination of IS-IS adjacencies are created between R1 and R2?

A. No adjacency is created
B. Both L1 and L2
C. L1 only
D. L2 only

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:

QUESTION 18

In your network, customers are complaining about the performance of voice traffic.
Which command displays the number of packets dropped due to the drop profile configured?

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

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:

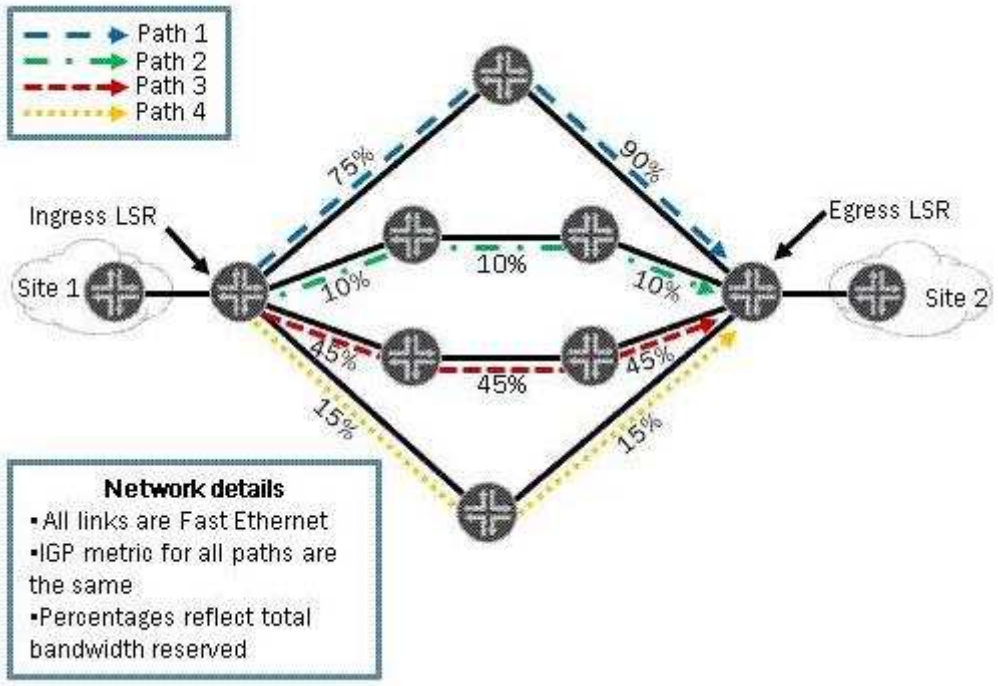
QUESTION 19
You operate a Layer 3 VPN for multiple customers. To support advanced route filtering on your PE routers, you must advertise more than one BGP community on advertised VPN routes to remote PE routers. Which routing-instance configuration parameter supports this requirement?

A. vrf-import
B. vrf-export
C. vrf-target import
D. vrf-target export

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:

QUESTION 20
Click the Exhibit button.



You have an MPLS network and you have configured least-fill as your 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:

QUESTION 21

Which two LSA types are permitted in an OSPF stub area? (Choose two.)

A. Type 1
B. Type 2
C. Type 4
D. Type 5

Correct Answer: AB
Section: (none)
Explanation

Explanation/Reference:
Explanation:
Stub areas can contain type 1, 2, and 3 LSAs. A default route is substituted for external routes.

QUESTION 22
Which neighbor state indicates that two BGP neighbors have full connectivity?

A. Idle
B. Connect
C. Open Confirm
D. Established

Correct Answer: D
Section: (none)
Explanation

Explanation/Reference:

QUESTION 23
Which table is considered the MPLS routing table?

A. inet.0
B. inet.2
C. inet.3
D. inet6.0

Correct Answer: C

Section: (none)
Explanation

Explanation/Reference:

QUESTION 24
What are two elements that must be configured to enable LDP? (Choose two.)

A. Add the relevant interfaces under the [edit protocols ldp] hierarchy.
B. Add the relevant interfaces under the [edit protocols rsvp] hierarchy.
C. Add the family iso statement to the relevant interfaces under the [edit interfaces] hierarchy.
D. Add the family mpls statement to the relevant interfaces under the [edit interfaces]

Correct Answer: AD
Section: (none)
Explanation

Explanation/Reference:

QUESTION 25
Refer to the exhibit.

user@R2> show ospf interface

Interface	State	Area	DR ID	BDR ID	Nbrs
ge-1/1/4.0	PtToPt	0.0.0.0	0.0.0.0	0.0.0.0	1
lo0.2	DR	0.0.0.0	172.16.10.2	0.0.0.0	0
vl-192.168.1.2	PtToPt	0.0.0.0	0.0.0.0	0.0.0.0	1

What does 192.168.1.2 represent?

A. The address of the Area 0 virtual link
B. The address of the vltunnel interface
C. The router ID of the local virtual ABR
D. The router ID of the remote router

Correct Answer: D
Section: (none)
Explanation

Explanation/Reference:

QUESTION 26
What are three reasons an OSPF neighbor ship would be stuck in ExStart? (Choose three.)

A. The LSA database exchange is not yet completed.
B. There is an MTU mismatch between the OSPF routers.
C. There is an interface-type mismatch between the OSPF routers.
D. There is a unicast communication problem between the OSPF routers.
E. Both OSPF routers are using the same router ID.

Correct Answer: BDE
Section: (none)
Explanation

Explanation/Reference:

QUESTION 27
Click the Exhibit button.

```
user@router> show ospf database router lsa-id 20.0.0.2 detail area 0
        OSPF database, Area 0.0.0.0
 Type       ID               Adv Rtr           Seq         Age  Opt  Cksum  Len
Router  20.0.0.2          20.0.0.2        0x80000004  118  0x22 0xdb9  48
   bits 0x3, link count 2
   id 5.0.0.1, data 5.0.0.10, Type Transit (2)
      Topology count: 0, Default metric: 65535
   id 20.0.0.2, data 255.255.255.255, Type Stub (3)
      Topology count: 0, Default metric: 0
   Topology default (ID 0)
      Type: Transit, Node ID: 5.0.0.1
        Metric: 65535, Bidirectional
```

You are receiving the OSPF link state advertisement shown in the exhibit. What are two reasons for the displayed metric value? (Choose two.)

A. The neighboring router has the overload option configured.
B. The local router has the overload option configured.
C. The neighboring router has exceeded its configured prefix export limit.
D. The local router has exceeded its configured prefix import limit.

Correct Answer: AC
Section: (none)
Explanation

Explanation/Reference:

QUESTION 28
Click the Exhibit button.

```
[edit]
user@R1# show interfaces so-0/0/0
unit 0 {
    family inet {
        address 192.168.8.45/30;
        }
    }

    [edit]
    user@R1# show routing-options router-id
    router-id 10.255.0.1;

    [edit]
    user@R1# show protocols ospf
    area 0.0.0.1 {
        interface so-0/0/0.0;
    }

    --------
    [edit]
    user@R2# show interfaces so-1/0/0
    unit 0 {
        family inet {
            address 192.168.8.45/30;
```

You are creating an OSPF multiarea adjacency with a link between two ABRs.

Referring to the exhibit, which configuration setting must be added to the routers to allow the second adjacency to form?

A. You must add the second area under [edit protocols ospf] and add a policy statement exporting the respective router-id into OSPF.
B. You must add the second area under [edit protocols ospf] and add a static route with the destination of the other ABR's router-id in the area.
C. You must add the second area under [edit protocols ospf] and configure the respective interface as secondary in the area.
D. You must add the second area under [edit protocols ospf] and add the respective interfaces

Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:

QUESTION 29
Click the exhibit button.

```
edit protocols ospf]
user@router# show
overload timeout 1800;
preference 25;
reference-bandwidth 1g;
area 0.0.0.0 {
interface ge-1/4/2.    {
            metric 10;
            priority 255;
      }
  interface ge-1/4/4.    {
            metric 15;
            priority 100;
      }
}
area 0.0.0.1 {
      interface xe-1/2/3.0 {
            metric 12;
            priority 125;
      }
      interface xe-1/2/1.0 {
            metric 16;
            priority 99;
      }
}
```

OSPF was configured 15 minutes ago and all databases are synchronizeD. However, the router is not receiving any transit traffiC.

What is a reason for this behavior?

A. The reference bandwidth has been set incorrectly.
B. The hold-time attribute is set too low.
C. The overload timeout threshold has not been reached.
D. The preference attribute has been set too high.

Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:

QUESTION 30
Refer to the exhibit.

```
[edit]
user@router# show protocols isis
export tag-lo0;
traffic-engineering disable;
interface all;

[edit]
user@router# show policy-options
policy-statement tag-lo0 {
    from interface [ lo0.0 fe-0/0/1.0 fe-0/0/2.0 ];
    then {
        tag 200;
        accept;
    }
}
```

You have configured your Junos device to tag routes; however, you are not seeing the routes being tagged. What is causing the problem?

A. You must configure the tagging on the physical interfaces, not on the loopback.
B. Route tagging does not work when IS-IS traffic engineering is disabled.
C. You must import the policy into IS-IS, not export it.
D. The policy-statement should have only a then tag 200; the acceptis accepting the route and ignoring the tag.

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:

QUESTION 31
Refer to the exhibit.

```
[edit protocols isis]
user@router# show
interface so-0/0/0.0 {
    level 2 disable;
}
interface fe-1/0/0.0;
interface fe-2/0/0.0 {
    passive;
}
```

You have implemented the IS-IS configuration shown in the exhibit. Which two statements are true? (Choose two.)

A. An IS-IS adjacency can establish on the fe-2/1/0.0 interface.
B. The SONET interface configuration allows the sharing of only Level 2 routes.
C. The fe-1/0/0.0 interface configuration allows sharing of Level 1 and Level 2 routes.
D. The fe-2/0/0.0 interface configuration allows advertising of its IP address into the LSPs.

Correct Answer: CD
Section: (none)
Explanation

Explanation/Reference:

QUESTION 32

Refer to the exhibit.

```
user@R1> show isis interface detail
IS-IS interface database:
ge-0/0/4.0
    Index:    , State: 0x6, Circuit id: 0x1, Circuit type: 2
    LSP interval: 100 ms, CSNP interval: 10 s
    Adjacency advertisement: Advertise
    Level Adjacencies Priority Metric Hello (s) Hold (s) Designated Router
       2                3          64        10         9.000           27 R2.02 (not us)
user@R2> show isis interface detail
IS-IS interface database:
ge-0/0/2.0
    Index:    , State: 0x6, Circuit id: 0x2, Circuit type: 2
    LSP interval: 100 ms, CSNP interval: 10 s
    Adjacency advertisement: Advertise
    Level Adjacencies Priority Metric Hello (s) Hold (s) Designated Router
       2                3          64        10         3.000            9 R2.02 (us)
user@R3> show isis interface detail
IS-IS interface database:
ge-0/0/2.0
    Index:    , State: 0x6, Circuit id: 0x1, Circuit type: 2
    LSP interval: 100 ms, CSNP interval: 10 s
    Adjacency advertisement: Advertise
    Level Adjacencies Priority Metric Hello (s) Hold (s) Designated Router
       2                3          64        10         3.000            9 R2.02 (not us)
```

Referring to the exhibit, what are two reasons why R2 and R4 show a different hello interval than R1 and R3? (Choose two.)

A. R4 is the DIS.
B. R2 is the DIS.
C. R4 has explicit configuration to set the hello interval to 3 seconds.
D. R2 has explicit configuration to set the hello interval to 3 seconds.

Correct Answer: BC
Section: (none)
Explanation

Explanation/Reference:

QUESTION 33
You are asked to set up a route reflection cluster for a group of IBGP peers that are fully meshed.

You want to only reflect routes that arrive outside the cluster to the IBGP peers.

Which route reflector configuration accomplishes this task?

A.

```
[edit protocols bgp]
user@router# show
group int-peers {
    type internal;
    local-address 172.16.1.1;
    cluster 172.16.1.1;
    advertise-external;
    neighbor 172.16.2.2;
    neighbor 172.16.3.3;
}
```

B.

```
[edit protocols bgp]
user@router# show
group int-peers {
    type internal;
    local-address 172.16.1.1;
    cluster 172.16.1.1;
    export next-hop-self;
    neighbor 172.16.2.2;
    neighbor 172.16.3.3;
}
```

C.

```
[edit protocols bgp]
user@router# show
group int-peers {
    type internal;
    local-address 172.16.1.1;
    cluster 172.16.1.1;
    no-client-reflect;
    neighbor 172.16.2.2;
    neighbor 172.16.3.3;
}
```

D.

```
[edit protocols bgp]
user@router# show
group int-peers {
    type internal;
    local-address 172.16.1.1;
    cluster 172.16.1.1;
    damping;
    neighbor 172.16.2.2;
    neighbor 172.16.3.3;
}
```

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

Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:

QUESTION 34
Refer to the exhibit.

```
user@router# show
chassis {
    aggregated-devices {
        ethernet {
            device-count 1;
        }
    }
}
interfaces {
    ge-0/0/0 {
        gigether-options {
        802.3ad ae0;
    }
}
ge-1/0/0 {
    gigether-options {
        802.3ad ae0;
    }
}
ae0 {
    unit 0 {
        family inet {
            policer {
                input limit-50m;
```

What would explain why the policer is allowing 100 Mbps of traffic into the router?

A. The burst-size-limit is inappropriate for the bandwidth-limit and for the default MTU of the ge-*/3# interfaces.
B. The policer is not using shared-bandwidth-policer, which it must to achieve a rate of 50 Mbps of traffic.
C. The policer is applied in the wrong direction.
D. The policer is not using logical-interface-policer, which it must to achieve a rate of 50 Mbps of traffic.

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:

QUESTION 35
Refer to the exhibit.

```
user@router# show
class-of-service {
    scheduler-maps {
        core {
            forwarding-class best-effort scheduler be;
            forwarding-class network-control scheduler nc;
            forwarding-class expedited-forwarding scheduler ef;
            forwarding-class assured-forwarding scheduler af;
        }
    }
    schedulers {
        be {
            transmit-rate percent 30;
            buffer-size percent 30;
            priority low;
        }
        nc {
            transmit-rate percent 3;
            buffer-size percent 3;
            priority high;
        }
        ef {
            transmit-rate {
                percent 24;
```

n/

The core scheduler-map is assigned to fe-0/l/0.

The following traffic is queued for transmission from fe-0/1/3:
- 40 Mbps of best-effort traffic
- 2 Mbps of network-control traffic
- 41 Mbps of expedited-forwarding traffic
- 30 Mbps of assured-forwarding traffic

Which queue uses the highest amount of interface bandwidth?

A. The best-effort queue
B. The expedited-forwarding queue
C. The network-control queue
D. The assured-forwarding queue

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:

QUESTION 36
Refer to the exhibits.

```
user@router> show class-of-service interface xe-0/0/8
Physical interface: xe-0/0/8, Index:
Queues supported: 8, Queues in use: 6
   Scheduler map: <default>, Index: 2
   Input scheduler map: <default>, Index: 2
   Chassis scheduler map: <default>, Index: 4
   Congestion-notification: Disabled

   Logical interface: xe-0/0/8.0, Index: 88
      Object                  Name                    Type                Index

      Rewrite                 exp-default             exp (mpls-any)       33
      Classifier              exp-default             exp                  10
      Classifier              ipprec-compatibility    ip                   13
```

```
user@router> show interfaces queue xe-0/0/8 egress | except " 0 bps| 0 pps"
Physical interface: xe-0/0/8, Enabled, Physical link is Up
  Interface index: 166, SNMP ifIndex: 567
Forwarding classes: 16 supported, 8 in use
Egress queues: 8 supported, 6 in use
Queue: 0, Forwarding classes: BE
  Queued:
    Packets              :            8652949729                8311298 pps
  Transmitted:
    Packets              :            8652949729                8311298 pps
Queue: 1, Forwarding classes: EF
  Queued:
Queue: 2, Forwarding classes: AF
  Queued:
Queue: 3, Forwarding classes: VOICE
  Queued:
Queue: 6, Forwarding classes: DATA
```

Queued:
Queue: 7, Forwarding classes: NC
Queued:

Packet Forwarding Engine Chassis Queues:
Queues: 8 supported, 6 in use
Queue: 0, Forwarding classes: BE
Queued:

Packets	:	12524320315	10566331 pps
Bytes	:	576118744304	3888410032 bps

Transmitted:

Packets	:	10246615526	9831972 pps
Bytes	:	471344324010	3618165696 bps
Tail-dropped packets	:	2277704789	734359 pps

Queue: 1, Forwarding classes: EF
Queued:
Queue: 2, Forwarding classes: AF
Queued:
Queue: 3, Forwarding classes: VOICE
Queued:
Queue: 6, Forwarding classes: DATA
Queued:
Queue: 7, Forwarding classes: NC
Queued:

In the exhibits, what is the reason for the tail drops in queue 0?

A. The interface cannot physically handle 3.37 Gbps of traffic.
B. The default network-control scheduler is taking bandwidth from the best-effort scheduler.
C. The default queue 0 scheduler does not allocate enough buffer size for 3.37 Gbps of traffic.
D. The default queue 0 scheduler does not allocate enough transmit rate for 3.37 Gbps of traffic.

Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:

QUESTION 37
In which configuration hierarchy must the hierarchical-scheduler parameter be applied to enable hierarchical scheduling?

A. [edit class-of-service]
B. [edit class-of-service <interface_name>]
C. [edit interfaces]
D. [edit interfaces <interface_name>]

Correct Answer: D
Section: (none)
Explanation

Explanation/Reference:

QUESTION 38
You want to aggregate policing for different protocol families and different logical interfaces on the same physical interface. Which CoS configuration attribute will accomplish this goal?

A. hierarchical policer
B. shared bandwidth policer
C. physical interface policer
D. logical interface policer

Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:

QUESTION 39
Refer to the exhibit.

```
user@router# show
routing-options {
    multicast {
        rpf-check-policy [ disable-from-group disable-from-source ];
    }
}
policy-options {
    policy-statement disable-from-group {
        term first {
            from {
                route-filter 228.0.0.0/8 orlonger;
            }
            then reject;
        }
    }
    policy-statement disable-from-source {
        term first {
            from {
                source-address-filter 192.168.25.6/32 exact;
            }
            then reject;
            + = Active Route, - = Last Active, * = Both

            0.0.0.0/0               *[BGP/170] 1w5d 22:33:28, localpref 100, from 192.168.177.7
```

Multicast traffic from 192.168.25.6 to 228.0.0.0/8 is entering the router on xe-3ft)/0. Which statement is correct?

A. The reverse-path forwarding lookup will succeed without these policies because of a default route.
B. The traffic to 228.0.0.0/3 will be rejected.
C. The traffic from 192.168.25.6 will be rejected.
D. The reverse-path forwarding lookup will fail without these policies.

Correct Answer: D
Section: (none)
Explanation

Explanation/Reference:

QUESTION 40
You are using the 224.2.0.0/16 multicast address range for SSM applications in your network. However, since you have deployed SSM in your network, SAP/SDP application communications have not been functioning properly.

What must you do to allow the SSM and SAP/SDP applications to function properly?

A. Use the 232.0.0.0/3 address range for SAP/SDP applications.
B. Use the 232.0.0.0/8 address range for SSM applications.
C. Use the 224.1.0.0/16 address range for SAP/SDP applications.
D. Use the 224.1.0.0/16 address range for SSM applications

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:

Topic 4, Volume D

QUESTION 1
You are configuring a Layer 2 circuit. Which two configuration steps are required? (Choose two.)

A. Configure LDP on the interfaces between PE and CE routers.
B. Configure circuit or translational cross-connects between PE routers and between PE and P routers.
C. Configure circuit or translational cross-connects between PE and CE routers.
D. Configure LDP on the interfaces between PE routers and between PE and P routers.

Correct Answer: CD
Section: (none)
Explanation

Explanation/Reference:

QUESTION 2
You are asked to implement an LDP-signaled VPLS network for a new customer. Which two statements are correct regarding this implementation? (Choose two.)

A. A full mesh of LDP sessions between PEs must be configured.
B. The PE routers distribute VPLS to label mapping using MP-IBGP.
C. The same NLRI as Layer 2 VPNs is used.
D. The PE router advertises a label for each remote PE configured.

Correct Answer: AD
Section: (none)
Explanation

Explanation/Reference:

QUESTION 3
You are asked to deploy VPLS in your network as a new service for several customers and must identify the configuration and provisioning requirements. Which two statements are correct? (Choose two.)

A. PE routers must include a VRF routing instance.
B. PE interfaces facing customers must have family VPLS configured.
C. PE routers must create a unique site ID for each CE device.

D. CE routers must be configured with their assigned route target.

Correct Answer: BC
Section: (none)
Explanation

Explanation/Reference:

QUESTION 4
Refer to the exhibit.

```
user@router> show vpls connections instance vpls-3001
Layer-2 VPN connections:
Legend for connection status (St)
EI -- encapsulation invalid          NC -- interface encapsulation not CCC/TCC/VPLS
EM -- encapsulation mismatch         WE -- interface and instance encaps not same
VC-Dn -- Virtual circuit down        NP -- interface hardware not present
CM -- control-word mismatch          -> -- only outbound connection is up
CN -- circuit not provisioned        <- -- only inbound connection is up
OR -- out of range                   Up -- operational
OL -- no outgoing label              Dn -- down
LD -- local site signaled down       CF -- call admission control failure
RD -- remote site signaled down      SC -- local and remote site ID collision
LN -- local site not designated      LM -- local site ID not minimum designated
RN -- remote site not designated RM -- remote site ID not minimum designated
XX -- unknown connection status      IL -- no incoming label
MM -- MTU mismatch                   MI -- Mesh-Group ID not available
BK -- Backup connection              ST -- Standby connection
PF -- Profile parse failure          PB -- Profile busy
RS -- remote site standby            SN -- Static Neighbor
```

```
VM -- VLAN ID mismatch
Legend for interface status
Up -- operational
Dn -- down
Instance: vpls-3001
   Local site: son-821-3001 (821)
      connection-site          Type   St     Time last up      # Up trans
      30                       rmt    OL
      836                      rmt    OL
      891                      rmt    OL
      897                      rmt    OL
      960                      rmt    OL
      8802                     rmt    RN

user@router> show route table inet.3
inet.3: 1 destinations, 1 routes (1 active, 0 holddown, 0 hidden)
+ = Active Route, - = Last Active, * = Both
10.1.1.2/32              *[LDP/9] 00:06:31, metric 1
                              > to 2.2.2.2 via fe-0/1/2.2
```

In a newly configured VPLS network, you see the output shown in the exhibit. The remote PE is 10.1.1.2. What is the cause for the OL status?

A. There is not a proper label-switched path to the remote PE, so there is no MPLS path to the remote PE.

B. The VPLS site identifiers are not contiguous, causing label block allocation to run out of labels.
C. The MPLS protocol family is not configured for interface fe-0/1/2.2, so the LDP adjacency is in an error state.
D. The remote PE is using the wrong route distinguisher, so the outgoing labels are incorrect.

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:

QUESTION 5
Which configuration parameter would be used by a commit script to use custom syntax and simplify the configuration?

A. Apply-groups
B. Allow-transients
C. Direct-access
D. Apply-macro

Correct Answer: D
Section: (none)
Explanation

Explanation/Reference:

QUESTION 6
Refer to exhibit.

```
user@router# run file show /var/db/scripts/op/forget-me-not.slax
version 1.0;
ns junos = "http://xml.juniper.net/junos/*/junos";
ns xnm = "http://xml.juniper.net/xnm/1.1/xnm";
ns jcs = "http://xml.juniper.net/junos/commit-scripts/1.0";
import "../import/junos.xsl";
match configuration {
        var $mpls = protocols/mpls;
        for-each (interfaces/interface[not(starts-with(name, "lo"))]/unit[family/iso]) {
                var $ifname = ../name _    '.' _    name;
                if (not(family/mpls)) {
                call jcs:emit-change() {
                        with $message = {
                                expr $ifname;
                                expr " does not have MPLS.";
                        }
                        with $content = {
                                <family> {
                                        <mpls>;
                                }
                        }
                }
        }
        if ($mpls and not($mpls/interface[name = $ifname])) {
```

```
user@router# show interfaces ge-1/0/0
unit 0 {
        family inet {
            address 10.42.0.1/30;
        }
        family iso;
}

user@router# show system scripts
commit {
file forget-me-not.slax;
}
```

Referring to the script and configuration shown in the exhibit, what would be the output after committing the configuration?

A.

```
[edit interfaces interface ge-1/0/0 unit 0]
    warning: ge-1/0/0 does not have MPLS.
commit complete
```

B.

```
[edit interfaces interface ge-1/0/0 unit 0]
    warning: You forgot something.
commit complete
```

C.

```
[edit interfaces interface ge-1/0/0 unit 0]
    warning: ge-1/0/0 does not have MPLS.
```

D.

```
[edit interfaces interface ge-1/0/0 unit 0]
    warning: You forgot something.
commit complete
commit complete
```

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

Correct Answer: C
Section: (none)

Explanation

Explanation/Reference:

QUESTION 7
Refer to the exhibit.

```
user@router> show route receive-protocol rip 2.2.2.2
inet.0: 15 destinations, 15 routes (15 active, 0 holddown, 0 hidden)
+ = Active Route, - = Last Active, * = Both
50.50.0.0/26            *[RIP/100] 00:09:12, metric 2, tag 0
                          > to 2.2.2.2 via fe-3/0/2
50.50.1.0/24            *[RIP/100] 00:32:24, metric 2, tag 0
                          > to 2.2.2.2 via fe-3/0/2
50.50.2.0/24            *[RIP/100] 00:32:24, metric 2, tag 0
                          > to 2.2.2.2 via fe-3/0/2
50.50.3.0/25            *[RIP/100] 00:32:24, metric 2, tag 0
                          > to 2.2.2.2 via fe-3/0/2
50.50.4.0/25            *[RIP/100] 00:32:24, metric 2, tag 0
                          > to 2.2.2.2 via fe-3/0/2
50.50.4.128/25          *[RIP/100] 00:32:24, metric 2, tag 0
                          > to 2.2.2.2 via fe-3/0/2
50.50.5.0/26            *[RIP/100] 00:32:24, metric 2, tag 0
                          > to 2.2.2.2 via fe-3/0/2
50.50.5.64/26           *[RIP/100] 00:32:24, metric 2, tag 0
                          > to 2.2.2.2 via fe-3/0/2
50.50.5.128/26          *[RIP/100] 00:32:24, metric 2, tag 0
                          > to 2.2.2.2 via fe-3/0/2
```

A.

```
[edit policy-options policy-statement RIP-redist]
user@router# show
term 1 {
    from {
        protocol rip;
        route-filter 50.50.1.0/24 exact;
    }
    then accept;
}
term 2 {
    from {
        protocol rip;
        route-filter 50.50.0.0/24 upto /27;
    }
    then reject;
}
term 3 {
    from protocol rip;
    then accept;
}
```

B.

```
[edit policy-options policy-statement RIP-redist]
user@router# show
term 1 {
    from {
        protocol rip;
        route-filter 50.50.0.0/24 upto /27;
    }
    then reject;
}
term 2 {
    from {
        protocol rip;
        route-filter 50.50.1.0/24 exact;
    }
    then accept;
    }
    term 3 {
        from protocol rip;
        then accept;
    }
```

C.

```
[edit policy-options policy-statement RIP-redist]
user@router# show
term 1 {
    from {
        protocol rip;
        route-filter 50.50.0.0/16 prefix-length-range /24-/26;
    }
    then reject;
}
term 2 {
    from {
        protocol rip;
        route-filter 50.50.1.0/24 exact;
    }
    then accept;
}
```

D.

```
[edit policy-options policy-statement RIP-redist]
user@router# show
term 1 {
    from {
        protocol rip;
        route-filter 50.50.1.0/24 exact;
    }
    then accept;
}
term 2 {
    from {
        protocol rip;
        route-filter 50.50.0.0/16 prefix-length-range /24-/2
    }
    then reject;
}
```

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

Correct Answer: D
Section: (none)
Explanation

Explanation/Reference:

QUESTION 8
Refer to the exhibit.

```
user@router> show ospf neighbor brief
```

Address	Intf	State	ID	Pri	Dead
192.168.158.103	ge-0/1/0	Full	10.250.240.35	1	36
192.168.158.115	ge-0/1/0	Full	10.250.240.9	128	38
192.168.158.123	ge-0/1/0	Full	10.250.240.31	128	33
10.1.1.126	ge-1/2/1	Full	10.250.240.10	128	37
10.1.1.125	ge-1/2/1	Full	10.250.240.7	128	38
10.1.2.10	ge-3/1/0	Full	10.250.240.3	64	32
10.1.2.51	ge-4/1/1	Full	10.250.240.5	128	33

Which statement is true?

A. OSPF neighbor 192.168.158.103 is least likely to be selected as the designated router.
B. OSPF neighbor 192.168.158.103 is most likely to be selected as the designated router.
C. OSPF neighbor 192.168.158.103 is ineligible to be selected as the designated router.
D. OSPF neighbor 192.168.158.103 is second most likely to be selected as the designated router.

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:

QUESTION 9
Which authentication method secures IS-IS hello, link-state, and sequence number PDUs?

A. Level authentication
B. Interface authentication
C. Area authentication
D. Domain authentication

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:

QUESTION 10
Given the following regular expression:
(14203121870)

Which two AS paths will match? (Choose two.)

A. 1045814203
B. 21870
C. 10458 21870 21870
D. 27522 14203 21870

Correct Answer: AB
Section: (none)
Explanation

Explanation/Reference:

QUESTION 11
Given the following regular expression:

.* 14203+(21870110458)

Which two AS paths match? (Choose two.)

A. 27522 2187010458
B. 27522 14203 14203 14203 21870
C. 14203 21780 10458
D. 14203 21780 27522

Correct Answer: BC
Section: (none)
Explanation

Explanation/Reference:

QUESTION 12
Which action is required for BGP confederations to function?

A. Remove the well-known private AS numbers.
B. Change the maximum number of times an AS can be in an AS path.
C. Replace the neighbor AS number with the local AS number.
D. Set the confederation autonomous system to include private AS number(s).

Correct Answer: D
Section: (none)
Explanation

Explanation/Reference:

QUESTION 13
You have established an MSDP peering between multicast domains for your AS and a neighboring AS. You are concerned about unnecessary flooding or looping of source active messages between MSDP peers. Which MSDP mechanism is used to prevent this problem?

A. The receiving MSDP peer performs a multicast RPF check to ensure that the SA messages are forwarded away from only the originating multicast source.
B. The receiving MSDP peer sends register-stop messages towards the originating RP that forwarded the SA messages.
C. The receiving MSDP peer performs amulticast peer-RPF check to ensure that the SA messages are forwarded away from only the originating RP.
D. The receiving MSDP peer sends prune messages to all upstream neighbors to avoid receiving additional SA messages.

Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:

QUESTION 14
You have configured PIM dense mode on your network. One of your PIM-enabled routers is not in the path of the source-based tree between the source and the receivers, and has no need for the multicast traffic. Which behavior would you expect from that router?

A. The router will send register stop messages to the RP.
B. The router will send prune messages to its upstream router.
C. The router will send assert messages to the RP.
D. The router will send graft messages to its upstream router.

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:

QUESTION 15
You are asked to configure auto-RP as part of a new PIM sparse mode deployment in your network. Which two configuration tasks are required? (Choose two.)

A. All RP routers must be configured with the mapping auto-RP role.
B. All RP routers must be configured with the discovery auto-RP role.
C. All non-RP routers must be configured with the mapping auto-RP role.
D. All non-RP routers must be configured with the discovery auto-RP role.

Correct Answer: AD
Section: (none)
Explanation

Explanation/Reference:

QUESTION 16

You are asked to mask your Junos MPLS core network from users that use traceroute. You have configuration privileges only on the ingress device. Which feature will accomplish this task?

A. Egress-protection
B. No-propagate-ttl
C. No-record
D. No-decrement-ttl

Correct Answer: D
Section: (none)
Explanation

Explanation/Reference:

QUESTION 17
You have recently deployed an MPLS network using CSPF with its default settings. Which statement is true regarding path selection when multiple candidate paths exist?

A. The path selected will be based on the most-fill bandwidth ratio.
B. The path selected will be based on the least-fill bandwidth ratio.
C. The path selected will be based on a randomized algorithm.
D. The path selected will be based on the first-hop LSR's RID.

Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:

QUESTION 18
You must add the 5.0.0.1 OSPF route to the inet.3 routing table for LSP resolution.

Which two configuration examples meet this requirement? (Choose two.)

A.

```
[edit routing-options]
user@router# show
resolution {
    rib jncie {
        resolution-ribs inet.3;
    }
}
```

B.

```
[edit protocols mpls]
user@router# show
traffic-engineering bgp-igp;
```

C.

```
[edit protocols ospf]
user@router# show
traffic-engineering {
    shortcuts;
}
```

D.

```
[edit protocols mpls label-switched-path jncip]
user@router# show
to 10.0.0.1;
install 5.0.0.1/32;
primary jncis;
```

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

Correct Answer: AD
Section: (none)
Explanation

Explanation/Reference:

QUESTION 19
Refer to the exhibit.

```
user@router# show routing-instances
VRF {
    instance-type vrf;
    interface fe-1/2/3.0;
    route-distinguisher 65535:1;
    vrf-target target:65535:1;
}

user@router# run show route advertising-protocol bgp 4.4.4.4 extensive
VRF.inet.0: 4 destinations, 4 routes (4 active, 0 holddown, 0 hidden)
* 172.16.1.0/30 (1 entry, 1 announced)
BGP group RR type Internal
      Route Distinguisher: 65535:1
      BGP label allocation failure: Need a nexthop address on LAN
      Nexthop: Not advertised
      Flags: Nexthop Change
      Localpref: 100
      AS path: I
      Communities: target:65535:1
```

What are two ways to resolve the error BGP label allocation failure: Need a next hop address on LAN? (Choose two.)

A. Configure a /32 static route with the next hop as itself to any remote address on the network assigned to the CE-facing interface.

B. Resolve the MPLS issue between the PE routers.
C. Configure a static ARP entry on fe-l/#3.0.
D. Configure vrf-table-label in the routing-instance.

Correct Answer: AD
Section: (none)
Explanation

Explanation/Reference:

QUESTION 20
Which two statements describe the benefits of using point-to-multipoint LSPs in an environment with MVPNs? (Choose two.)

A. Performance levels within the LSPs can be guaranteed, regardless of the signaling protocol used.
B. A service provider network does not need to run PIM to support multicast routing.
C. Data replication can be done by downstream LSRs and not just by the ingress PE router.
D. Multicast traffic can be protected, regardless of the signaling protocol used.

Correct Answer: BC
Section: (none)
Explanation

Explanation/Reference:

QUESTION 21
What are two requirements of Layer 2 VPN BGP route reflectors? (Choose two.)

A. Routes are kept in the bgp.l2vpn.0 table.
B. Route reflectors must support the l2vpn family.
C. Route reflectors must support the inet-vpn family.
D. Routes are kept in the inet.2 table.

Correct Answer: AB
Section: (none)
Explanation

Explanation/Reference:

QUESTION 22
How would you copy the BGP prefix 192.168.42.0/24 from VRF-A.inet.0 to VRF-B.inet.0?

A. Use a VRF import policy on the destination VRF to match the desired prefix.
B. Use an import policy on the BGP neighbor configured with family inet-vpn to add a target community that VRF-B imports.
C. Use a VRF export policy in VRF-A to copy the route from the source VRF to the destination VRF.
D. Use a RIB group policy to copy the route from the bgp.l3vpn.0 table to the VRF-B.inet.0 table.

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:

QUESTION 23
-- Exhibit –

[edit protocols ospf area 0.0.0.2]
user@router# show
area-range 0.0.0.0/1 restrict;
interface ge-0/0/1.0;
-- Exhibit --

Click the Exhibit button.

You have an OSPF area configured as shown in the exhibit.

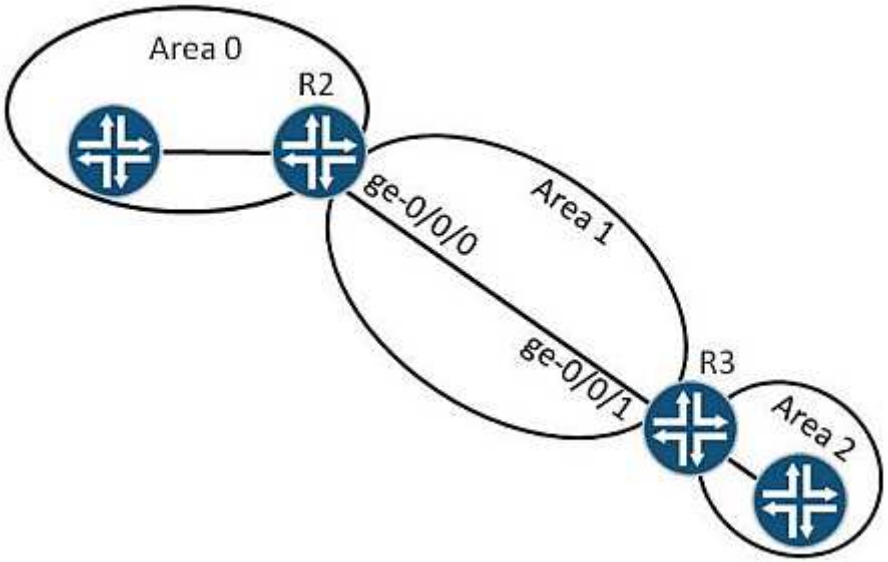
Which two statements are true? (Choose two.)

A. The 30.0.0.0/8 prefix will not be advertised to Area 0 as a Type 3 LSA.
B. The 200.0.0.0/8 prefix will not be advertised to Area 0 as a Type 3 LSA.
C. To be effective, the configuration must be used on an ASBR router.
D. To be effective, the configuration must be used on an ABR router.

Correct Answer: AD
Section: (none)
Explanation

Explanation/Reference:

QUESTION 24
-- Exhibit –



-- Exhibit --

Click the Exhibit button.

In the exhibit, you must configure an OSPF virtual link between R2 and R3 to facilitate communication between Area 0 and Area 2.

Which two addresses should you use as the neighbor IDs of the virtual link endpoints? (Choose two.)

A. The address that is associated with R2's router ID.
B. The address that is associated with R2's ge-0/0/0 interface.
C. The address that is associated with R3's router ID.
D. The address that is associated with R3's ge-0/0/1 interface.

Correct Answer: AC
Section: (none)
Explanation

Explanation/Reference:

QUESTION 25
-- Exhibit --
user@router> show route receive-protocol rip 2.2.2.2

inet.0: 15 destinations, 15 routes (15 active, 0 holddown, 0 hidden)
+ = Active Route, - = Last Active, * = Both

50.50.0.0/26 *[RIP/100] 00:09:12, metric 2, tag 0
> to 2.2.2.2 via fe-3/0/0.2
50.50.1.0/24 *[RIP/100] 00:32:24, metric 2, tag 0
> to 2.2.2.2 via fe-3/0/0.2
50.50.2.0/24 *[RIP/100] 00:32:24, metric 2, tag 0
> to 2.2.2.2 via fe-3/0/0.2
50.50.3.0/25 *[RIP/100] 00:32:24, metric 2, tag 0
> to 2.2.2.2 via fe-3/0/0.2
50.50.4.0/25 *[RIP/100] 00:32:24, metric 2, tag 0
> to 2.2.2.2 via fe-3/0/0.2
50.50.4.128/25 *[RIP/100] 00:32:24, metric 2, tag 0
> to 2.2.2.2 via fe-3/0/0.2
50.50.5.0/26 *[RIP/100] 00:32:24, metric 2, tag 0
> to 2.2.2.2 via fe-3/0/0.2
50.50.5.64/26 *[RIP/100] 00:32:24, metric 2, tag 0
> to 2.2.2.2 via fe-3/0/0.2
50.50.5.128/26 *[RIP/100] 00:32:24, metric 2, tag 0
> to 2.2.2.2 via fe-3/0/0.2
-- Exhibit --

Click on the Exhibit button.

Referring to the exhibit, how should an export policy be configured to export only the 50.50.1.0/24 RIP summary route into OSPF?

A. [edit policy-options policy-statement RIP-redist]
user@router# show
term 1 {
from {

```
        protocol rip;
        route-filter 50.50.1.0/24 exact;
    }
    then accept;
}
term 2 {
    from {
        protocol rip;
        route-filter 50.50.0.0/24 upto /27;
    }
    then reject;
}
term 3 {
    from protocol rip;
    then accept;
}
```

B. [edit policy-options policy-statement RIP-redist]
user@router# show

```
term 1 {
    from {
        protocol rip;
        route-filter 50.50.0.0/24 upto /27;
    }
    then reject;
}
term 2 {
    from {
        protocol rip;
        route-filter 50.50.1.0/24 exact;
    }
    then accept;
}
term 3 {
    from protocol rip;
    then accept;
}
```

C. [edit policy-options policy-statement RIP-redist]
user@router# show

```
term 1 {
    from {
        protocol rip;
        route-filter 50.50.0.0/16 prefix-length-range /24-/26;
```

```
    }
    then reject;
}
term 2 {
    from {
        protocol rip;
        route-filter 50.50.1.0/24 exact;
    }
    then accept;
}
```

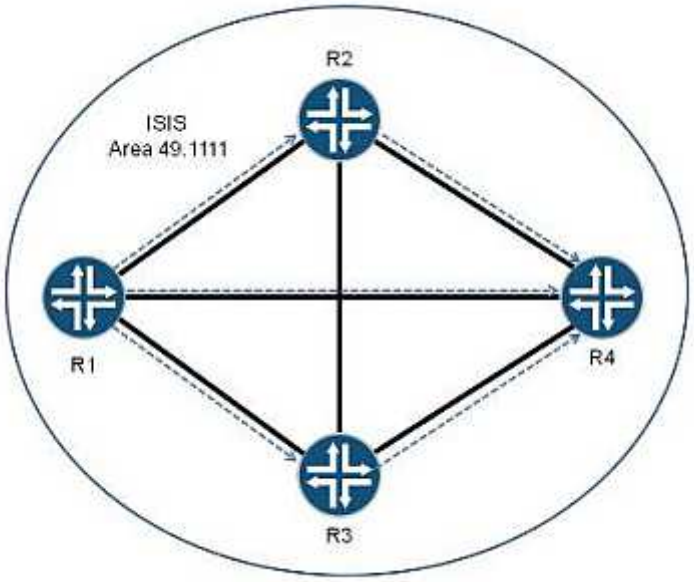
D. [edit policy-options policy-statement RIP-redist]

```
user@router# show
term 1 {
    from {
        protocol rip;
        route-filter 50.50.1.0/24 exact;
    }
    then accept;
}
term 2 {
    from {
        protocol rip;
        route-filter 50.50.0.0/16 prefix-length-range /24-/26;
    }
    then reject;
}
```

Correct Answer: D
Section: (none)
Explanation

Explanation/Reference:

QUESTION 26
-- Exhibit –



-- Exhibit --

Click the Exhibit button.

Each router in the exhibit is receiving three copies of the same IS-IS LSP from the other three routers in the topology. The additional copies of the IS-IS LSPs are causing additional processing overhead on each router. You want to reduce the overhead required to process the additional copies of the same IS-IS LSP.

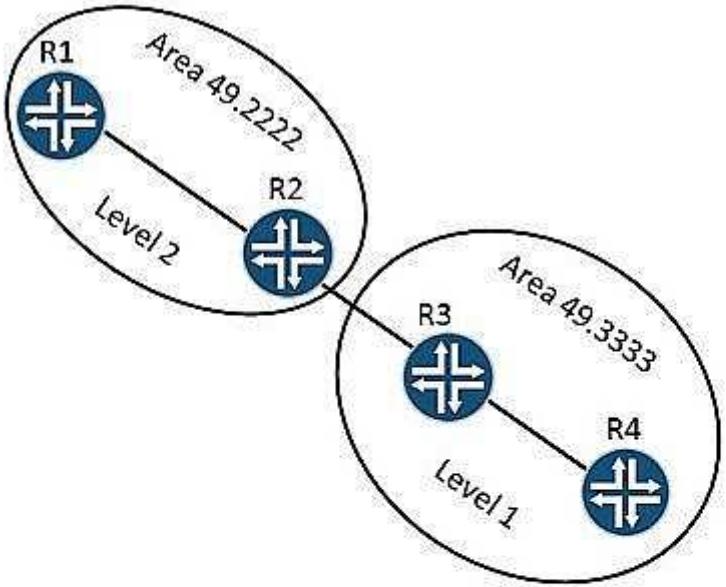
Which feature accomplishes this task?

A. Configure traffic engineering.
B. Configure mesh groups.
C. Lower the CSNP interval.
D. Increase the SPF delay.

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:

QUESTION 27
-- Exhibit –




```
[edit protocols isis]
user@R1# show
level 2 wide-metrics-only;
interface all;
```

```
[edit protocols isis]
user@R2# show
level 2 wide-metrics-only;
level 1 wide-metrics-only;
interface all;
```

```
[edit protocols isis]
user@R3# show
export 10.100.100.0/24;
level 1 wide-metrics-only;
interface all {
    level 2 disable;
}
```

-- Exhibit --

Click the Exhibit button.

The exhibit displays an IS-IS topology and IS-IS configuration for R1, R2, and R3. R3 is redistributing the 10.100.100.0/24 route into IS-IS as an external IS-IS route. However, the 10.100.100.0/24 route is automatically being leaked into Area 49.2222.

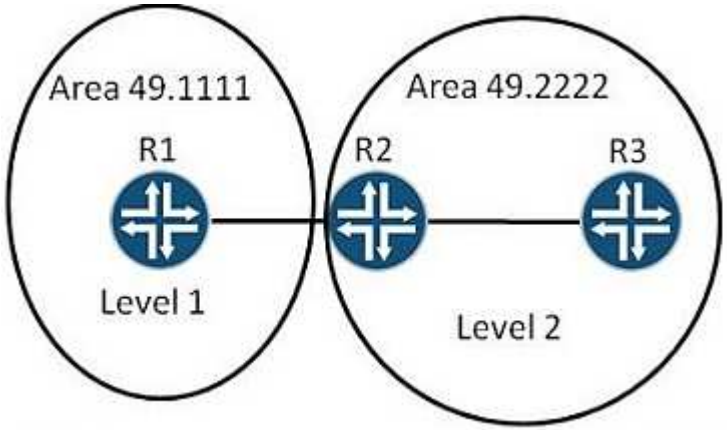
How do you stop the automatic route leaking of the 10.100.100.0/24 prefix?

A. Remove the level 1 wide-metrics-only statement from R3.
B. Remove the level 1 wide-metrics-only statement from R2.
C. Remove the level 2 wide-metrics-only statement from R2.
D. Remove the level 2 wide-metrics-only statement from R1.

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:

QUESTION 28
-- Exhibit –




```
[edit]
user@R1# show interfaces lo0
unit 0 {
    family inet {
        address 1.1.1.1/32;
    }
    family iso {
        address 49.1111.0001.0001.0011.00;
    }
}

[edit]
root@R1# show protocols isis
interface all {
    level 2 disable;
}
```

```
[edit]
user@R2# show interfaces lo0
unit 0 {
    family inet {
        address 2.2.2.2/32;
    }
    family iso {
        address 49.2222.0002.0002.0022.00;
    }
}

[edit]
root@R2# show protocols isis
interface all;
```

-- Exhibit --

Click the Exhibit button.

The exhibit displays an IS-IS topology and IS-IS-related outputs for R1 and R2. The IS-IS adjacencies between R2 and R3 are in the Up state, but the IS-IS adjacency between R1 and R2 does not attempt to form.

Which two actions will ensure that all IS-IS adjacencies (R1 to R2 and R2 to R3) reach and stay in the Up state? (Choose two.)

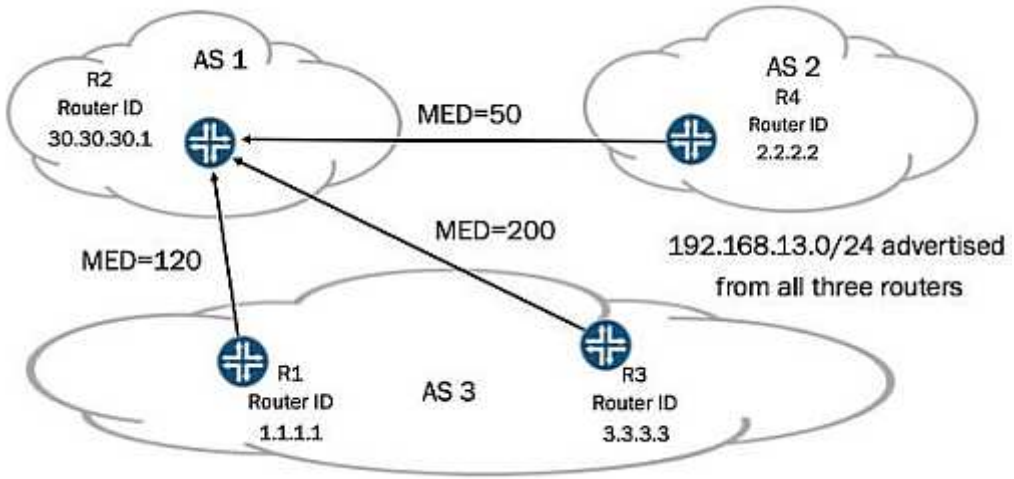
A. Change the area ID on R2 to 49.1111.

B. Enable Level 2 operations for all of R1's interfaces.
C. Enable Level 1 operations for all of R2's interfaces.
D. Change the selector value on R1 to 01.

Correct Answer: AB
Section: (none)
Explanation

Explanation/Reference:

QUESTION 29
-- Exhibit –



-- Exhibit --

Click the Exhibit button.

You administer the network shown in the exhibit. Routers R1, R3, and R4 are sending the same prefix to R2. All routers are using default local-preference values. You must make the prefix from R4 the most preferred.

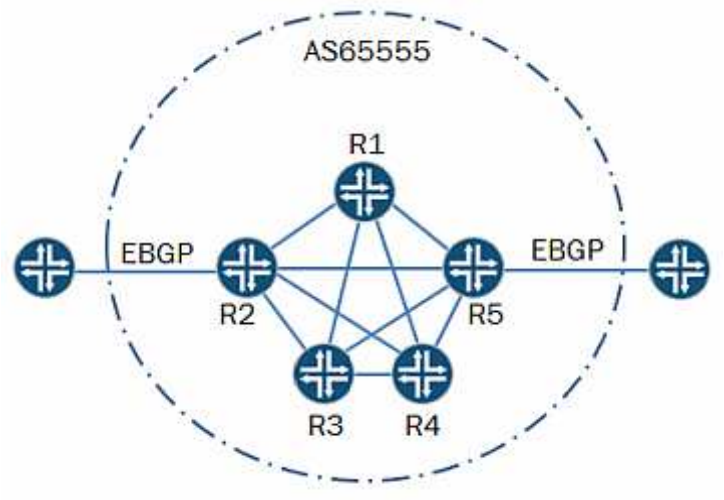
Which two actions accomplish the task? (Choose two.)

A. Configure as-path-prepend on R1 and R3.
B. Configure local-preference 10 on R4.
C. Configure router-id 4.4.4.4 on R4.
D. Configure always-compare-med on R2.

Correct Answer: AD
Section: (none)
Explanation

Explanation/Reference:

QUESTION 30
-- Exhibit –



-- Exhibit --

Click the Exhibit button.

Referring to the exhibit, routers R1 through R5 exist in a fully-meshed IBGP group. You want the routes received through EBGP on R1 to be advertised to the EBGP peer connected to R5. You want the routes received through EBGP on R5 to be installed on R1; however, you do not want the those routes to be advertised to the EBGP peer connected to R1.

Which two actions will accomplish this task? (Choose two.)

A. Implement an export policy on R5 to add the well-known no-export community to the EBGP routes.
B. Implement an export policy on R5 to add the well-known no-advertise community to the EBGP routes.
C. Implement a route reflector group and configure the no-client-reflect parameter on the route reflector.
D. Implement an import policy on R1 to add the well-known no-export community to the EBGP routes.

Correct Answer: AB
Section: (none)
Explanation

Explanation/Reference: