

400-201 Dumps

CCIE SP Written v4.0

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NEW QUESTION 1

Why are thresholds defined based on baseline documents?

- A. To help identify current network problems and predict future bottlenecks
- B. To reduce polling traffic on the network
- C. To verify that interfaces are in the correct state
- D. To suppress duplicate alarms and for event correlation
- E. To ensure that QoS parameters are defined appropriately

Answer: A

NEW QUESTION 2

A postman script to poll a specific object was working a few minutes ago, but suddenly stopped working. The APIC is still reachable from you clients and seems to function normally. no change was made to script which option describe the most likely cause of this issue?

- A. The authentication token has expired, you need to reauthenticate first
- B. The object data is being returned as JSON instead of XML
- C. The APIC license expired
- D. A man-in-the-middle attack is preventing the script to execute as expected

Answer: C

NEW QUESTION 3

A service provider has deployed new PEs using nV Edge technology based on Cisco ASR 9000 routers. How does the system mitigate against a split-brain state if all control plane and data plane links are lost?

- A. The chassis located in the second rack automatically shuts down and only the first rack chassis stays operational
- B. Both chassis stay online operating as two different PEs
- C. The two chassis send keepalive packets over any layer 2 clou
- D. The non-DSC chassis shuts down itself after it has received these additional keepalive packets
- E. Both chassis stop receiving and forwarding data traffic until the control plane and data plane links are brought back up

Answer: B

NEW QUESTION 4

A service provider is using multicast flows to provide streaming video content to its customers. Video streams are sometimes interrupted, and network instability is determined to be the cause. Which action should the service provider take to decrease the burden on the router resources in an unstable unicast routing environment?

- A. increase the PIM hello hold timers
- B. reduce the volume of query messages
- C. filter unnecessary SA messages
- D. tune the RPF backoff

Answer: D

NEW QUESTION 5

Which option is the benefit of per-link LFA over per-prefix LFA?

- A. It has a greater applicability
- B. It provides greater protection coverage
- C. It is simpler
- D. It enables better bandwidth utilization

Answer: C

NEW QUESTION 6

```
Router#sh ip pim neighbor
PIM Neighbor Table
Mode: B - Bidir Capable, DR - Designated Router, N - Default DR Priority,
      S - State Refresh Capable
Neighbor      Interface      Uptime/Expires   Ver   DR
Address                               Prio/Mode
135.23.35.2   FastEthernet0/0 10:11:30/00:01:35 v2    1 / S
145.35.45.2   FastEthernet0/1 11:11:01/00:01:32 v2    1 / S

Router#sh ip route
45.0.0.0/24 is subnetted, 1 subnets
0 IA 45.45.45.0 [110/20] via 145.35.45.2, 00:17:39, FastEthernet0/1
     110/20] via 135.23.35.2, 00:17:39, FastEthernet0/0
```

Refer to the exhibit PIM sparse mode is implemented in the network RPF succeeds under which condition?

- A. The RPF check succeeds for the highest DR priority for the PIM router
- B. The RPF check succeeds for both PIM neighbors, and traffic load-balances across both neighbors
- C. The RPF check succeeds for the next hop whose router ID is the highest
- D. The RPF check succeeds for the highest interface IP address for the PIM router

Answer: D

NEW QUESTION 7

```

PE2# sh bgp vpnv4 uni vrf ABC 7.7.7.7
BGP routing table entry for 10:10:7.7.7/32, version 97
Paths: (1 available, best #1, table ABC)
  Advertised to update-groups:
    13
  Refresh Epoch 1
    65000
    1.1.1.1 (metric 10) [via default] from 1.1.1.1 (1.1.1.1)
      Origin incomplete, metric 0, localpref 100, weight 32768, valid, internal, best
      Extended Community: SoO:12:34 RT:10:10
      mpls labels in/out no-label/28
      rx pathid: 0, tx pathid: 0x0

PE2# ! few minutes later
PE2# sh bgp vpnv4 uni vrf ABC 7.7.7.7
BGP routing table entry for 10:10:7.7.7/32, version 103
Paths: (1 available, best #1, table ABC)
  Advertised to update-groups:
    13    14
  Refresh Epoch 1
    65000
    10.2.4.4 (via vrf ABC) from 10.2.4.4 (4.4.4.4)
      Origin incomplete, localpref 100, valid, external, best
      Extended Community: RT:10:10
      mpls labels in/out 27/no-label
      rx pathid: 0, tx pathid: 0x0

CE4# sh ip route 7.7.7.7
Routing entry for 7.7.7.7/32
  Known via "bgp 65000", distance 20, metric 0
  Tag 12, type external
  Last update from 10.2.4.2 00:00:20 ago
  Routing Descriptor Blocks:
  * 10.2.4.2, from 10.2.4.2, 00:00:20 ago
    Route metric is 0, traffic share count is 1
    AS Hops 2
    Route tag 12
    MPLS label: none
  
```

Refer to the exhibit. CE6 cannot ping the loopback address of C7. An SP engineer notices a routing loop between PE2 and CE4. Which configuration must be applied on both PE routers to avoid the routing loop?

- A. Neighbor<CE-IP address>soo<value> with the same SoO value on both PEs
- B. Neighbor<CE-IP address>soo<value> with a different SoO value in each PE
- C. No neighbor<CE-IP address> as-override
- D. Neighbor<CE-IP address> allows-in

Answer: A

NEW QUESTION 8



Refer to the exhibit. The ITR map cache is empty. The ITR receives packet destined for 10.2.1.10 and it sends query to the MR. Which action does the MR/MS take after receive the query for 10.2.1.10?

- A. The MR sends a map notify to the requesting ITR with address of 172.17.1.1 as the 10.2.1.0/24
- B. The MR forwards the map request query to the ETR responsible for the EID 10.2.1.0/24
- C. The MR forwards the map notify request to the ETR responsible for the EID 10.2.1.0/24
- D. The MR sends a map reply to the requesting ITR with address of 172.17.1.1 as the for 10.2.1.0/24

Answer: B

NEW QUESTION 9

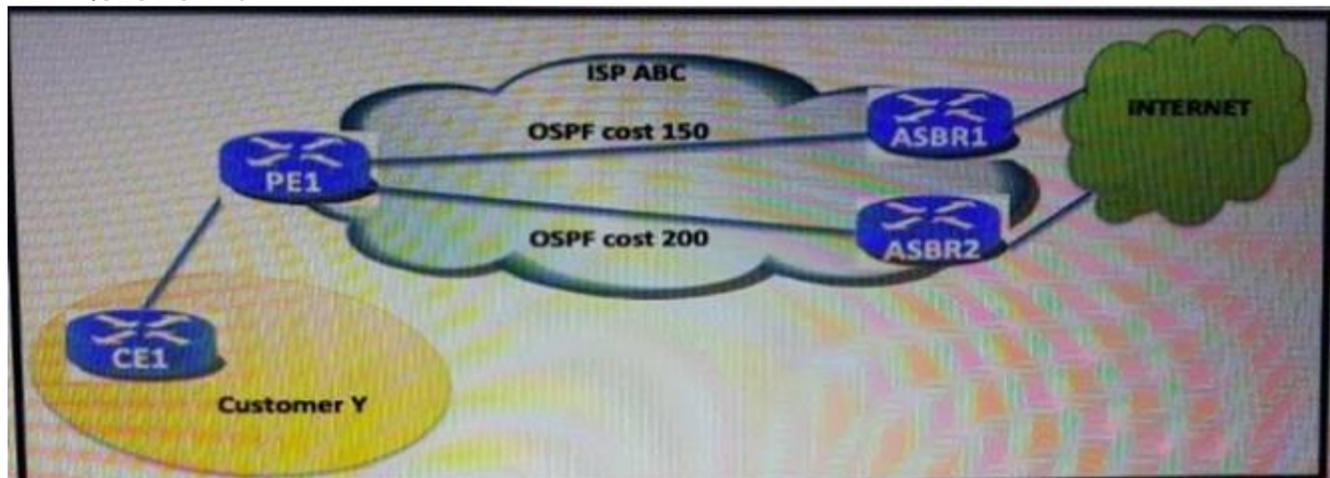
REP has been deployed in a segment. A network operations engineer notices that a segment port does not become operational. What is the root cause of this

issue?

- A. A neighbor is using a different port ID
- B. A local port is in alternate port state
- C. A neighbor port is in blocked state
- D. More than one neighbor has the same segment ID

Answer: D

NEW QUESTION 10



Refer to the exhibit. Customer Y reported that internet traffic stopped for a few minute. The ISP ABC operation engineer identified that this occurred when ASBR1 router reloaded OSPF coverage faster than BGP. Which command prevent this happening?

- A. Graceful restart
- B. set-overload-bit on startup wait-for-bgp
- C. bfd min_rx 100 max_rx 100 multiplier 3
- D. max-metric router-lsa on startup 300

Answer: D

NEW QUESTION 10

An operation engineer from AS 2000 must deploy this inbound routing policy:

*Based on RFC 1998, modify the local-preference value for prefixes containing BGP community values 2000:90 and 2000:110

*Strip any BGP community of the BGP prefixes received from customers that are in the range between 2000:1 and 2000:2000. Any other BGP community values must not be removed

*Apply 2000:1003 BGP community Value, which indicates that the BGP prefix is learned form a customer

Which configuration accomplishes this BGP routing policy?

- A. route-policy CUSTOMER-COMMUNITIES
if community matches-any (2000:90) then
set local-preference 90
elseif community matches-any (2000:110) then
set local-preference 110
endif
delete community in (2000:[1..2000])
set community (2000:1003)
end-policy
- B. route-policy CUSTOMER-COMMUNITIES
if community matches-any (2000:90) then
set local-preference 90
elseif community matches-any (2000:110) then
set local-preference 110
endif
if community matches-any (2000:[1..89], 2000:[91..109], 2000:[111..2000]) then
delete community all
endif
set community (2000:1003)
end-policy
- C. route-policy CUSTOMER-COMMUNITIES
delete community in (2000:[1..2000])
if community matches-any (2000:90) then
set local-preference 90
elseif community matches-any (2000:110) then
set local-preference 110
endif
set community (2000:1003) additive
end-policy
- D. route-policy CUSTOMER-COMMUNITIES
if community matches-any (2000:90) then
set local-preference 90
elseif community matches-any (2000:110) then
set local-preference 110
endif
set community (2000:1003) additive
delete community in (2000:[1..2000])
end-policy

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

Answer: C

NEW QUESTION 11

Refer to the exhibit. The NOC team received multiple reports about poor quality of the VoIP traffic. An engineer notices that all VoIP traffic with poor quality uses Core links with QoS implemented. Which are the two reasons for this issue? (Choose two)

- A. A DoS attack on the core routers has caused high CPU utilization on the line cards that hosts the 10 Gigabit Ethernet port.
- B. The VoIP traffic exceeding 1 GBPS is dropped by the policer
- C. The Core links are congested, which causes starvation of VoIP traffic
- D. The Bandwidth allocated is higher than 100 percent
- E. The VoIP traffic on the core links is MPLS-labeled and it is not subject to QoS

Answer: AB

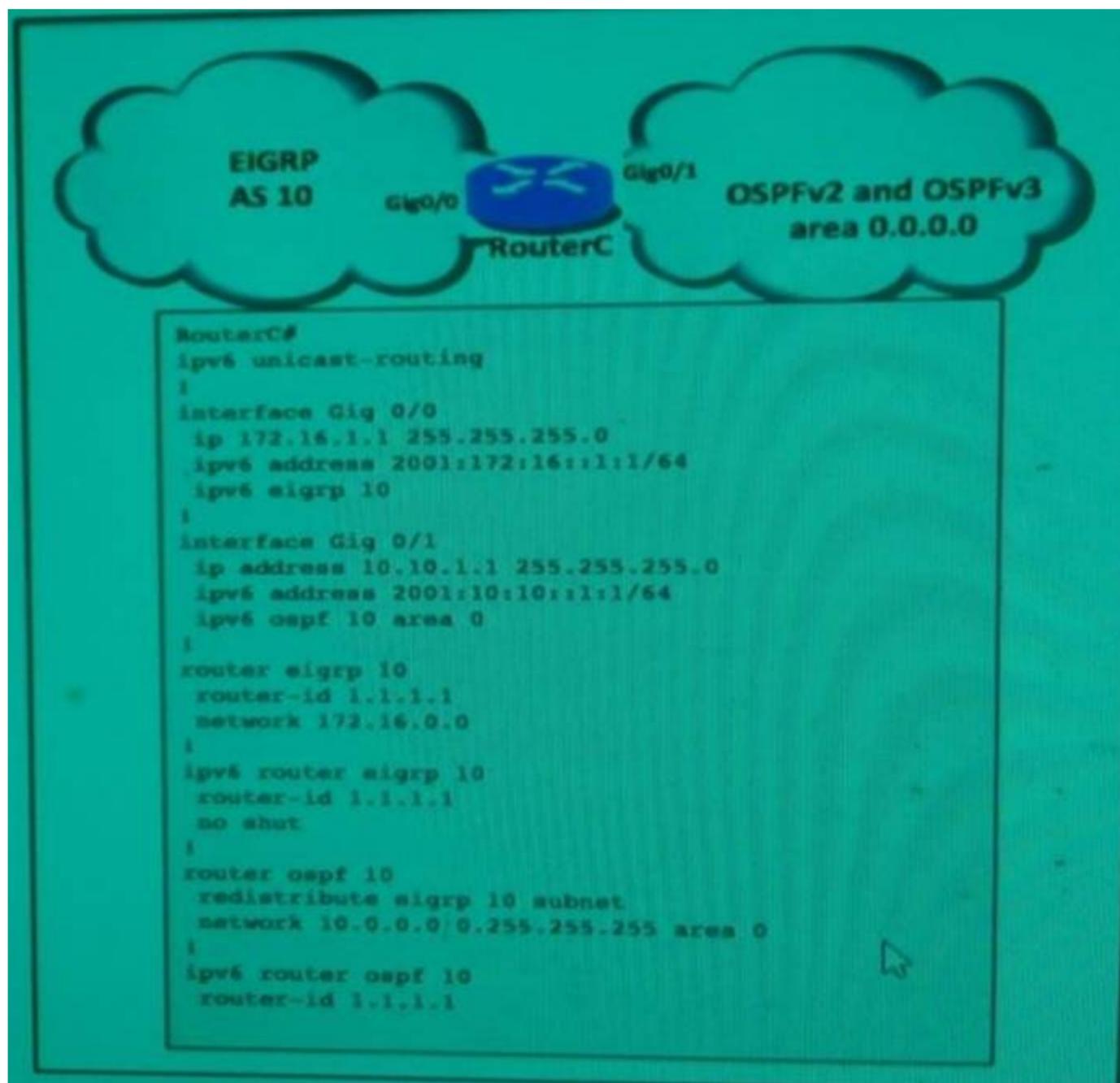
NEW QUESTION 12

A service provider is using point-to-multipoint TE to forward MPLS traffic from one source to multiple destinations, what is a restriction of using this method?

- A. Destinations must be manually added and removed on the TE tail-end router
- B. Multicast traffic must be implemented using PIM sparse mode
- C. Point-to-multipoint TE does not support policy-based routing
- D. Only node protection is supported on point-to-multipoint TE LSPs

Answer: C

NEW QUESTION 15



Refer to the exhibit, Which OSPFv3 redistribute configuration provides the equivalent results when redistributing from EIGRP Pv6 onto OSPFv3 as it happens when redistributing from EIGRPv4 to OSPFv2?

- A. ipv6 router ospf 10 redistribute eigrp 10 redistribute connected
- B. ipv6 router ospf 10 redistribute eigrp 10 connected
- C. ipv6 router ospf 10 redistribute eigrp 10 include-connected
- D. ipv6 router ospf 10 redistribute eigrp 10

Answer: C

NEW QUESTION 16

On Cisco IOS devices, which IS-IS feature reduces the convergence time for prefixes designated as high priority?

- A. iSPF
- B. advertise passive only
- C. prefix prioritization
- D. Fast-Forwarding

Answer: C

NEW QUESTION 20

A corporate ABC located in the US acquired Company XYZ which is located in Europe. Both companies are connected to the internet using the local ISP. A management VLAN must be built using subnet 192.168.1.0/24 across the ABC and XYZ sites. Which solution meets this requirement?

- A. Layer 3 VPN
- B. AToM
- C. VPLS
- D. L2TPv3

Answer: D

NEW QUESTION 25

ISP_X has IPv4 only enabled in the MPLS backbone. ISP_X must provide IPv6 services to its customers including IPv6 Internet access. Which IPv6 transition mechanism allows ISP_X to provide IPv6 connected by leveraging the existing MPLS IPv4 core network?

- A. 6to4 tunnels
- B. NAT444
- C. 6PE
- D. NAT64

- E. 6RD
- F. DS Lite

Answer: A

NEW QUESTION 27

A service provider engineer enabled the BGP next-hop tracking feature and also tuned the OSPF to increase the network convergence in case of network failures. However, the operator engineer notices that in cases of PE failure, the network convergence is still slow. Which configuration must the operator use to remedy this failure scenario?

- A.
router bgp 65000 address-family ipv4
bgp nexthop trigger delay 1
!
address-family vpnv4
bgp nexthop trigger delay 1
- B.
ip prefix-list PREFIX_32 permit 0.0.0.0/0 ge 32
!
route-map ONLY_32 permit 10
match ip address prefix-list PREFIX_32 match source-protocol ospf
!
router bgp 65000 address-family vpnv4
bgp next-hop route-map ONLY_32
- C.
router ospf 1
default-information originate always metric-type 1 timers throttle lsa 1 5 5000
timers throttle spf 1 5 5000
- D.
router ospf 1
no default-information originate timers throttle lsa all 1 5 5000
times throttle spf 1 5 5000
- E.
router bgp 65000 address-family ipv4
no bgp next-hop trigger enable bgp additional-paths install
!
address-family vpnv4
no bgp next-hop trigger enable bgp additional-paths install

Answer:

NEW QUESTION 32

Which two characteristics of GMPLS are true? (Choose two)

- A. The LSP is established directionally through only one signaling message
- B. The control channel can terminate on different nodes types than the bearer channels span
- C. OXCs manipulate wavelengths that bear the label implicitly
- D. Two light paths traversing the same fiber link can share the same wavelength on that link
- E. LMP can be used by the natively photonic switches network element type only

Answer: AC

NEW QUESTION 33

Which are the three characteristics of SDR? (Choose three)

- A. The logical router can span across chassis.
- B. Each logical router has a distinct fabric and system controller module.
- C. Owner SDR can be reloaded, without affecting all non-SDRs.
- D. The logical router has dedicated route processor.
- E. The logical router can share line cards.
- F. The fabric and system controller module are shared by all logical routers.

Answer: ADF

NEW QUESTION 38

How does BGPsec protect advertisements by preventing from the malicious traffic flows?

- A. It validates the AS path
- B. It validates only the originating AS
- C. It validates routes with encryption
- D. It validates the next-hop AS

Answer: A

NEW QUESTION 39

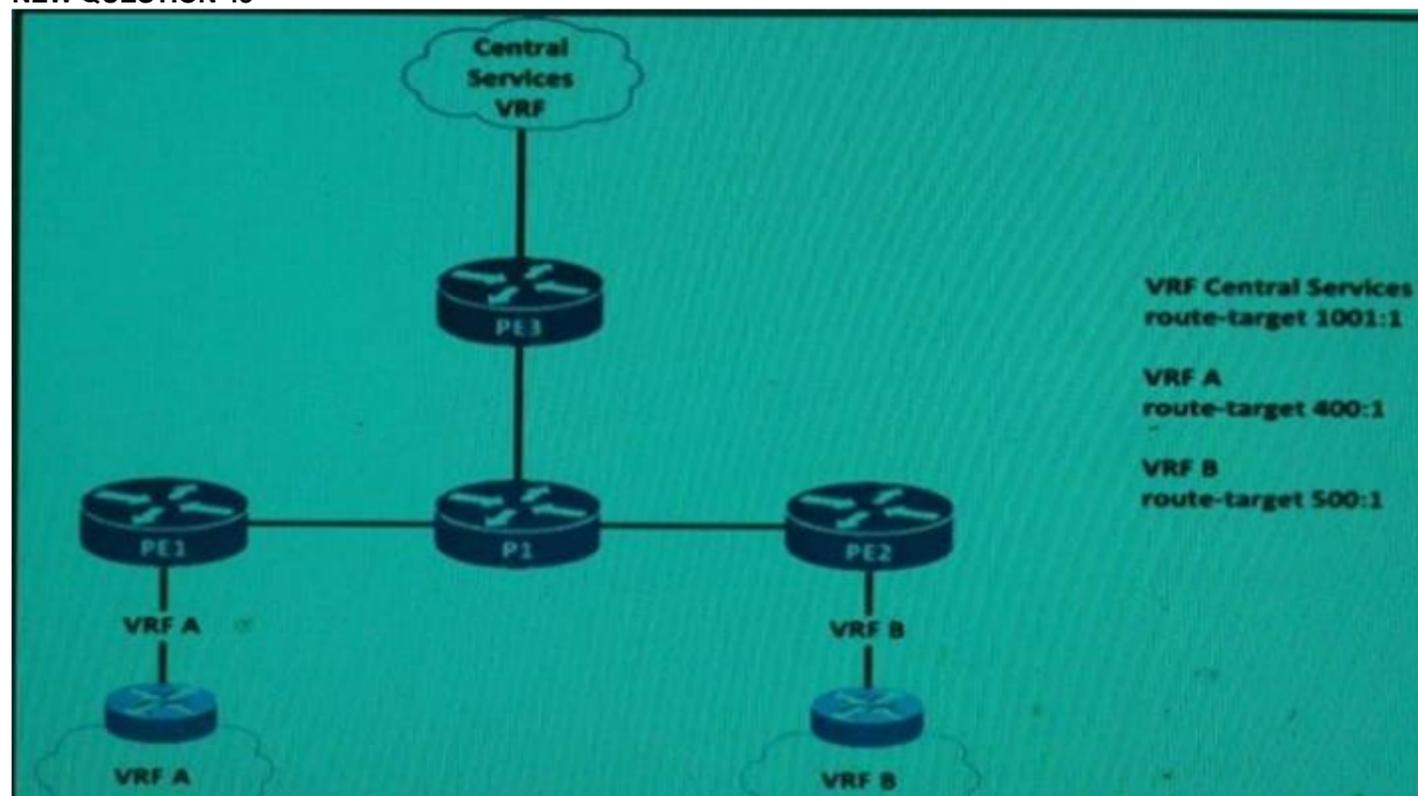
Which two BGP mechanisms solve the full-mesh paradigm? (Choose two)

- A. Confederation

- B. Router policy filtering
- C. Hierarchical VPLS
- D. MPLS VPN
- E. Route reflectors
- F. BGP link state
- G. Community SOO

Answer: AE

NEW QUESTION 43



Refer to the exhibit All PE routers are configured with full-mesh MP-BGP and VPNv4 routing to provide L3VPN services. A central service VRF is implemented, to provide- management and monitoring products to customers with dedicated VRFs .The objective of this design to provide routing between the central services VRF and VRFs A and B. Which implementation achieves this goal?

- A. PE1#vrf definition A rd 400:1address-family ipv4 route-target 400:1 PE2#vrf definition B rd 500:1address-family ipv4 route-target 500:1 PE3#vrf definition SERVICES rd 1001:1address-family ipv4route-target export 1001:1route-target export 400:1route-target export 500:1
- B. PE1#vrf definition A rd 400:1address-family ipv4route-target import 1001:1 PE2#vrf definition B rd 500:1address-family ipv4route-target import 1001:1 PE3#vrf definition SERVICES rd 1001:1address-family ipv4 route-target import 400:1route-target import 500:1
- C. PE1#vrf definition A rd 400:1address-family ipv4 route-target export 400:1route-target import 1001:1 PE2#vrf definition B rd 500:1address-family ipv4 route-target export 500:1route-target import 1001:1 PE3#vrf definition SERVICES rd 1001:1address-family ipv4route-target export 1001:1route-target import 400:1route-target import 500:1
- D. PE1#vrf definition A rd 400:1address-family ipv4route-target export 1001:1 PE2#vrf definition B rd 500:1address-family ipv4route-target export 1001:1 PE3#vrf definition SERVICES rd 1001:1address-family ipv4 route-target export 400:1route-target export 500:1

Answer: C

NEW QUESTION 45

A service provider is using Cisco ME 3400 Series Ethernet Access Switches on the edge of a Metro Ethernet POP. A customer has a requirement to connect a switch to the network and requires the ability to trunk VLANs on the uplink port into the provider network. Which port type should the engineer configure on the switch to meet this requirement while maintaining a secure edge implementation?

- A. UNI
- B. ENI
- C. NNI
- D. Access

Answer: C

NEW QUESTION 50

Refer to the exhibit A service provider is using the configuration to determine traffic paths based on MPLS EXP marking. Which technology is being implemented?

- A. CBTS
- B. DS-TE
- C. PBTS
- D. IP FBR

Answer: A

NEW QUESTION 53

What is the main goal of the incident management?

- A. Restore a normal service operation as quickly as possible
- B. Create possible workarounds for issues that might recur
- C. Enable the cursor to report issues

D. Ensure that the same incident does not recur

Answer: A

NEW QUESTION 55

Refer to the exhibit. A service provider is providing Layer 2 VPN between CE1 and CE2 via a pseudowire created between R1 and R5. What is the label stack of the packets leaving R6 going toward R5 for traffic flowing from CE1 to CE2?

- A. Single label of 17
- B. 24(top) and 0 (Bottom)
- C. Single label of 24
- D. 3 (top) and 24 (bottom)
- E. 0 (top) and 24 (bottom)
- F. 0 (top) and 17 (bottom)
- G. 3 (top) and 24 (bottom)
- H. 17 (top) and 0 (bottom)

Answer: F

NEW QUESTION 59

What is MPLS VPN component used by Multi-VRF solution?

- A. Route target community
- B. Route distinguisher
- C. Default MDT
- D. VPN forwarding

Answer: B

NEW QUESTION 64

An engineer is tasked with configuring Lawful-Intercept on the Internet facing routers. Which two security issues must the engineer take into consideration? (Choose two)

- A. Encryption might be required depending on the request
- B. SNMPv2c should be enabled in order to provide the correct message format
- C. QoS and CoPP should be implemented to protect and optimize the tasks
- D. The communication between the MD and the Content IAP happens over UDP port 161
- E. Default SNMP does not include all the MIB interfaces needed to respond to the request
- F. A new and dedicated loopback interface is required to communicate with the MD device

Answer: DE

NEW QUESTION 65

A service provider has a requirements to deploy a virtual router in its network to handle high-performance data plane service up to 20Gbps. Which Cisco solution fulfills this requirement?

- A. Cisco 7600
- B. Cisco ASR 9000
- C. Cisco NCS 6000
- D. Cisco CSR 1000v
- E. Cisco nexus 9000v

Answer: B

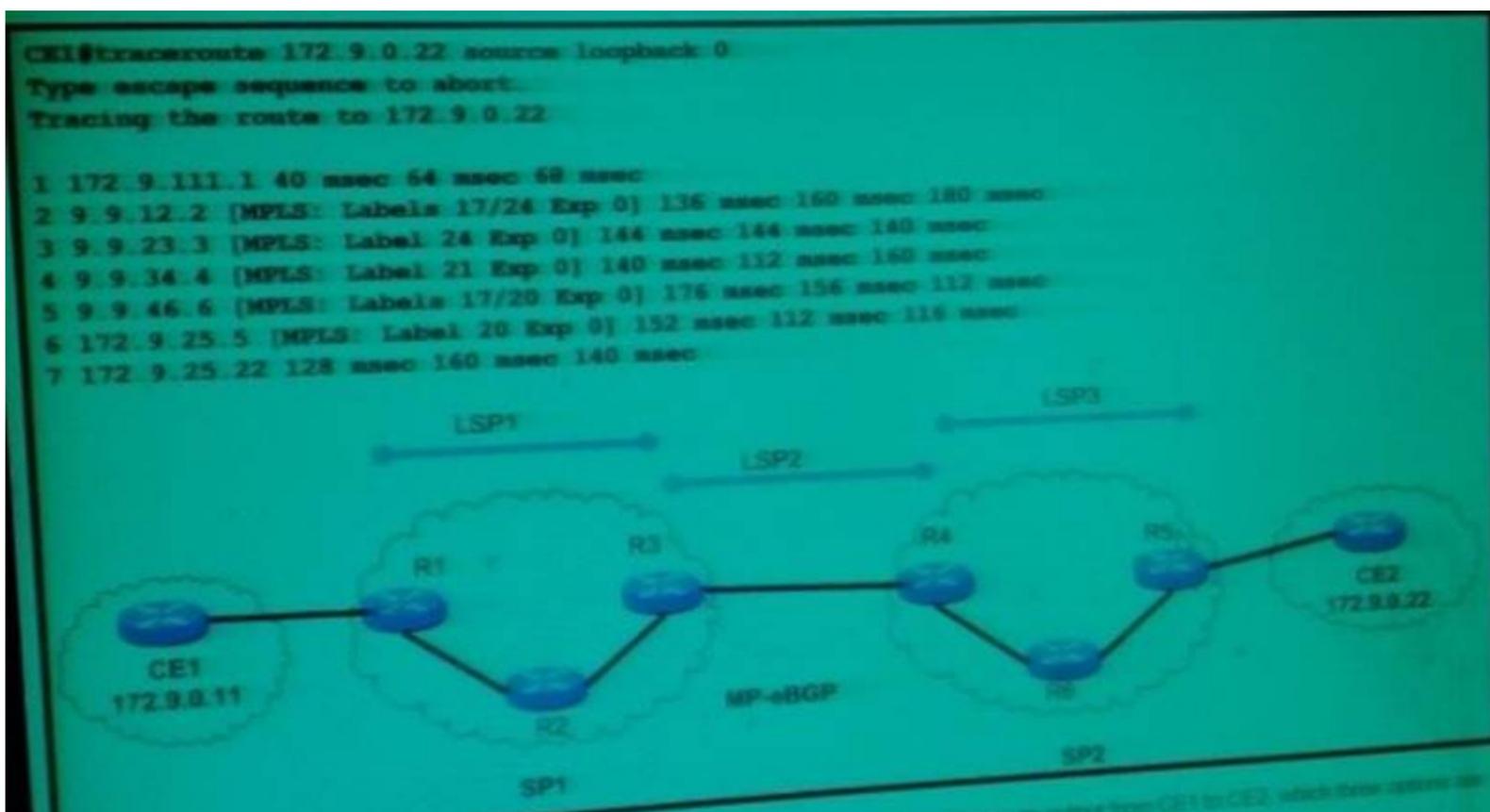
NEW QUESTION 67

Which three OSPF pieces of information must between routers in order to establish an ospf neighborhood? (Choose three)

- A. Area ID
- B. Hello interval and dead interval timer value
- C. LSA refresh period timer value
- D. Priority value
- E. Stub flag
- F. Process ID

Answer: ABE

NEW QUESTION 72

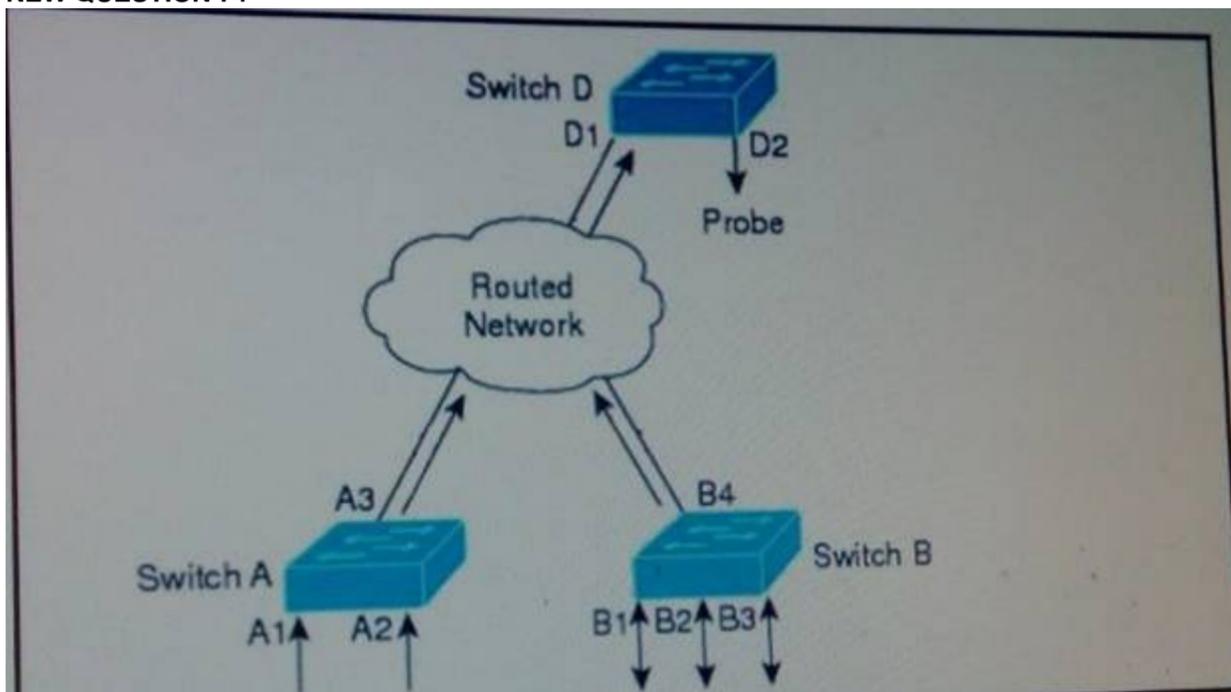


Refer to the exhibit. The topology is an inter-AS VPN that is using Option B. Given the traceroute output from CE1 to CE2. Which three options are VPN labels? (Choose two)

- A. Label 17 for LSP 1
- B. Label 21 for LSP 1
- C. Label 24 for LSP 1
- D. Label 17 for LSP 2
- E. Label 20 for LSP 2
- F. Label 21 for LSP 2
- G. Label 17 for LSP 3
- H. Label 20 for LSP 3

Answer: BCH

NEW QUESTION 74



Refer to the exhibit. The requirements is to copy traffic from switch A and switch B and to send it to a probe connected to switch D across the routed network. Which technology meets this requirement?

- A. NetFlow v5
- B. ERSPAN
- C. NetFlow v9
- D. RSPAN

Answer: B

NEW QUESTION 76

Service providers that implement MPLS Inter-AS Option B must ensure that the ASBRs between each provider learn all VPNv4 routes from both providers. How can this requirements be accomplished?

- A. Ensure that each ASBR is configured for all VRFs from within its own provider backbone
- B. Configure each ASBR to retain route targets for all VPNv-4 learned routes
- C. Configure the VRFs form the connecting provider in order to learn route targets on each ASBR
- D. Ensure that LDP is conjured between each ASBR for label exchange on all VRFs

Answer: B

NEW QUESTION 77

Which two models are used in MPLS TE bandwidth constraints? (Choose two)

- A. mdm
- B. rdm
- C. bdm
- D. mam
- E. tem

Answer: BD

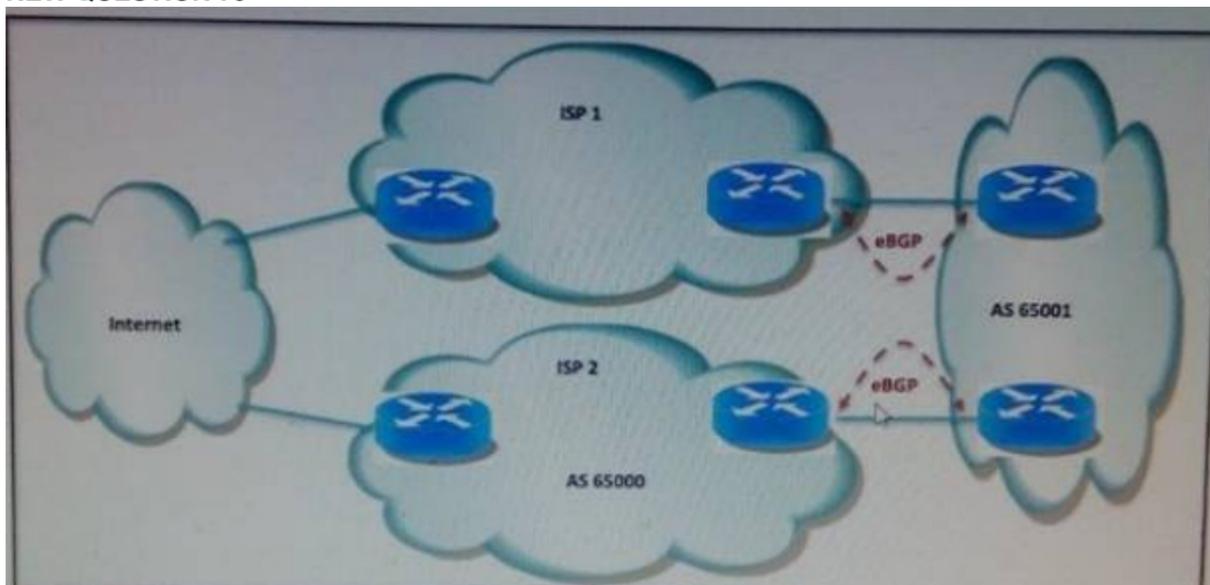
NEW QUESTION 78

A service provider is offering VoIP services level agreement to customers. Which configuration provides validation that the service level agreement has been honored?

- A.
ipsla 999 udp-jitter 209.165.200.225 1000 codec g729a tag VoIP-SLA ipsla schedule 999 life forever start-time now
- B.
ipsla 999 icmp-jitter 209.165.200.225 tag VoIP-SLA ipsla schedule 999 life forever start-time now
- C.
ipsla 99 icmp-jitter 209.165.200.225 tos 160 ipsla schedule 999 life forever start-time now
- D.
ipsla 999 udp-jitter 209.165.200.225 tos 160 ipsla schedule 99 life forever start-time now
- E.
ipsla 999 udp-jitter 209.165.200.225 tos 160 ipsla schedule 999 life forever start-time now
- F.
ipsla 999 udp-jitter 209.165.200.225 1000 codec g729a tos 160 ipsla schedule 99 life forever start-time now

Answer:

NEW QUESTION 79



Refer to the exhibit. A network engineer from ISP 2 is designing the BGP architecture with a requirement of preventing their customer AS 65001 from becoming a transit AS, using the following configuration.

- ```
Router BGP 65000
Neighbor 10.0.0.1 remote-as 65001
Neighbor 10.0.0.1 route-map BGP-ROUTE-policy in
Which Cisco IOS command should be used within the route-map to achieve the goal on ISP 2 from AS 65000?
```
- A.  
route-map BGP-ROUTE-POLICY permit 10 set community no-advertise additive
  - B.  
ip as-path access-lists 1 permit^65001\$  
!  
route-map BGP-ROUTE-POLICY deny 10 match as-path 1  
!  
route-map BGP-ROUTE-POLICY permit 10
  - C.  
ip as-path access-list 1 permit^65001\$  
!  
route-map BGP-ROUTE-POLICY permit 10 match as-path 1
  - D.  
route-map BGP-ROUTE-POLICY permit 10  
set community no-export additive

Answer:

**NEW QUESTION 82**

In a PE-CE scenario using OSPF as the routing protocol a down-bit set can be advertised in which OSPF LSA type?

- A. Type 1 LSA
- B. Type 2 LSA

- C. Type 3 LSA
- D. Type 4LSA

**Answer: C**

**NEW QUESTION 87**

ISP A provides L2VPN services to Company B through an MPLS network. Company B uses all available CoS values to classify and different traffic forwarding within all Company B sites. ISP A uses the following CoS values to differentiate service classes for the VPN customer traffic

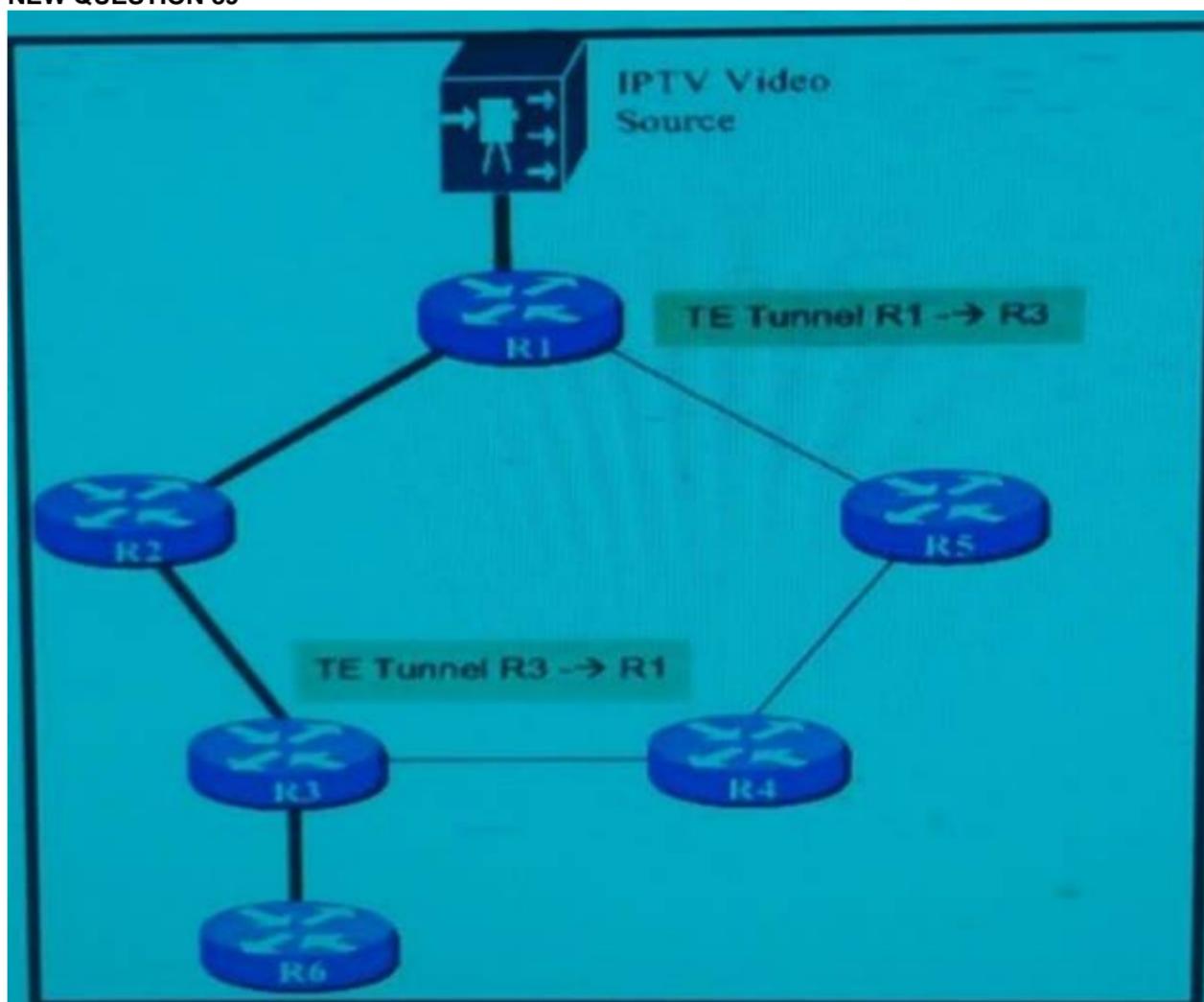
- \*MPLS EXP 0 for Bronze service class
- \*MPLS EXP 1 for Silver service class
- \*MPLS EXP 2 for Gold service class
- \*Remaining MPLS EXP values for ISP A internal use

ISP A's policy is to forward VPN customer traffic based only on their Bronze, silver and Gold service classes. Which QoS method must ISP A implement to achieve this?

- A. Short-pipe Mode
- B. Russian Doll Model
- C. Pipe Mode
- D. Uniform Mode
- E. Maximum Allocation Model

**Answer: D**

**NEW QUESTION 89**



Refer to the exhibit. IPTV video clients are connected to R6. Unicast and multicast traffic flows from R1 to R6. The OSPF cost of the R1-R2-R3-R6 path is lower than the R1-R5-R4- R3-R6 path

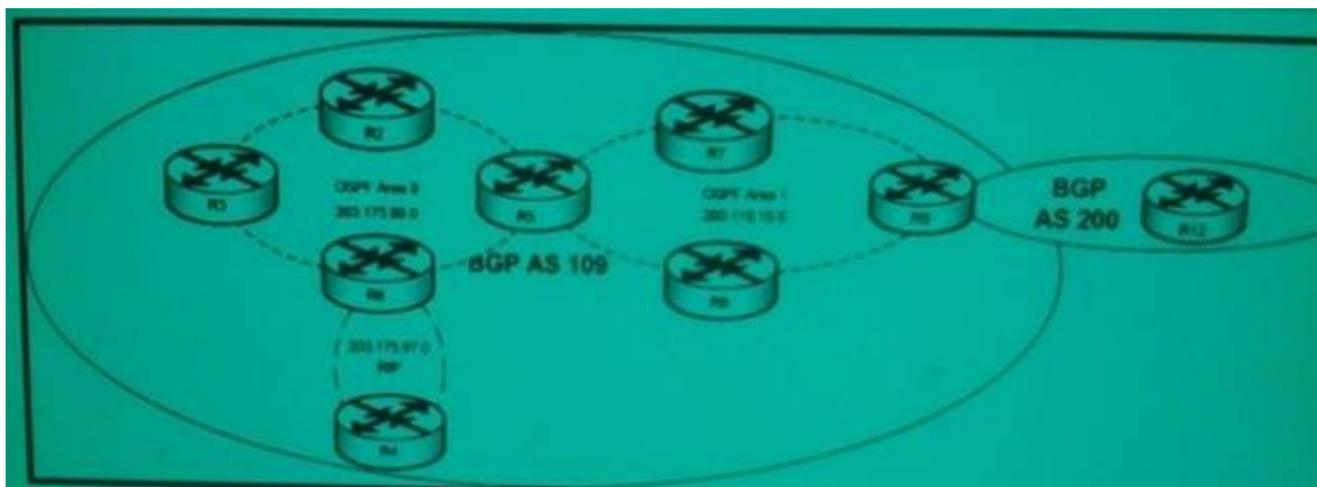
To enable load sharing and fast reroute, the design team decided to implement MPLS TE tunnels between R1 and R3 using the forwarding adjacency feature. After the MPLS TE tunnels are deployed, the multicast traffic stops working

While trouble shooting the issue, the operations engineer noticed that the OSPF route to the multicast source is learned via the MPLS TE tunnel, which causes the RPF check to fail. Which two solutions can prevent the multicast traffic from being affected by the RPF check failure due to the MPLS TE tunnel deployment? (Choose two)

- A. Replace forwarding adjacency by autoroute announce and enable the multicast-intact feature
- B. Enable PIM on the MPLS TE tunnel on both headend routers
- C. Enable the Multitopology routing feature
- D. Enable a new routing protocol, such as another OSPF process, on the core-facing links
- E. create a static mroute on R3 with the RPF pointing to the MPLS TE tunnel

**Answer: AC**

**NEW QUESTION 91**



Refer to the exhibit. Which command can be issued on R9 so that R12 receives all its internal and external OSPF routes inside the R12 BGP table?

- A. redistribute ospf 1 internal external 1 external 2
- B. redistribute ospf 1 match nssa-external 1 nssa-external 2
- C. redistribute ospf 1 internal nssa-external 1 nssa-external 2
- D. redistribute ospf 1 match internal external 1 external 2

Answer: D

**NEW QUESTION 93**

What type of IPv6 address is the address FF05::2:260:8F908?

- A. Multicast temporary site local
- B. Multicast permanent node link local
- C. Multicast permanent site local
- D. Multicast permanent link local

Answer: C

**NEW QUESTION 95**

```

R1/0/0/CPU0:R10#show running-config ntp
ntp
max-associations 10
authentication-key 1 md5 encrypted 123A2C243124
authenticate
trusted-key 1
master 1
access-group ipv4 peer NTP_Peers
access-group ipv4 serve NTP_Clients
source Loopback0
update-calendar
!

R1/0/0/CPU0:R10#show running-config ipv4 access-list NTP_Peers
ipv4 access-list NTP_Peers
10 permit ipv4 host 10.10.1.1 any
20 permit ipv4 host 10.10.1.3 any
30 permit ipv4 host 10.10.1.4 any
40 permit ipv4 host 10.10.1.5 any
50 permit ipv4 host 10.10.1.6 any
60 permit ipv4 host 10.10.1.7 any
70 permit ipv4 host 10.10.1.8 any
80 permit ipv4 host 10.10.1.9 any
90 permit ipv4 host 10.10.1.11 any
100 permit ipv4 host 10.10.1.12 any
!

R1/0/0/CPU0:R10#show running-config ipv4 access-list NTP_Clients
% No such configuration item(s)

R2#debug ntp all
NTP events debugging is on
NTP core messages debugging is on
NTP clock adjustments debugging is on
NTP reference clocks debugging is on
NTP packets debugging is on
R2#
*Apr 21 16:48:20.997: NTP message sent to 10.10.1.10, from interface
'Loopback0' (10.10.1.2).
*Apr 21 16:48:21.006: NTP message received from 10.10.1.10 on interface
'Loopback0' (10.10.1.2).
*Apr 21 16:48:21.006: NTP Core(DEBUG): ntp_receive: message received
*Apr 21 16:48:21.006: NTP Core(DEBUG): ntp_receive: peer is 0x7F8DBA067868, next action
is 1.
*Apr 21 16:48:21.006: NTP Core(INFO): 10.10.1.10 C01C 8C bad_auth crypto_NAK

```

Refer to the exhibit. The NOC engineer noticed that the R2 router system clock is not updated and synchronized to the NTP server that is configured on the R10

router. What is the issue?

- A. The maximum number of peers and client associations is exceeded
- B. The access list NTP\_Clients is missing
- C. The PE2 router should be configured as an NTP peer instead of as a client
- D. The access group is misconfigured
- E. The authentication key is mismatched

**Answer: E**

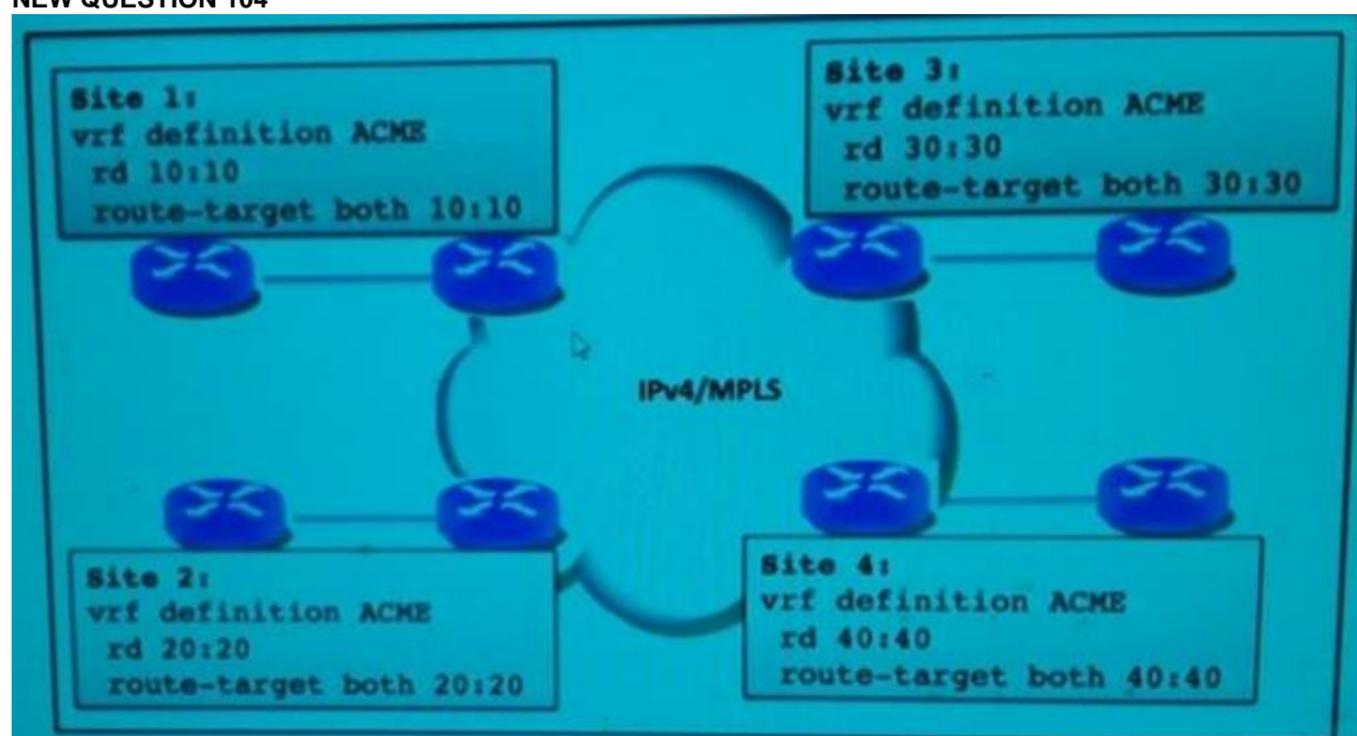
**NEW QUESTION 100**

What ISIS TLVs are used to support MPLS traffic Engineering? ( Choose three)

- A. TLV 22 Extended IS neighbor
- B. TLV 10 Authentication Information
- C. TLV 134 Router ID
- D. TLV 132 IP interface Address
- E. TLV 128 IP Internal Reachability
- F. TLV 135 IS Reachability

**Answer: ACF**

**NEW QUESTION 104**

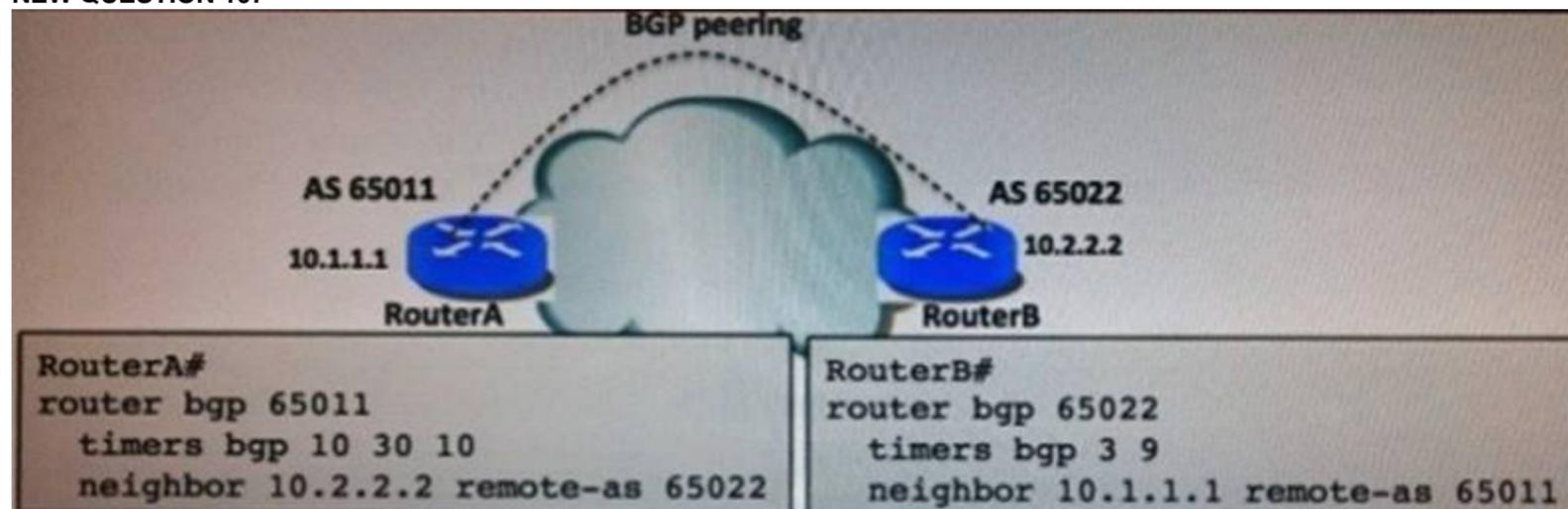


Refer to the exhibit. A company has four office locations, which are identified as 1,2,3 and 4. The PE routers at these locations have assigned RDs of 10:10 , 20:20, 30:30 and 40:40, respectively Locations 1 and 3 need to share routing information Which set of configurations allows for this requirement?

- A. Site 3:vrf defination ACME route-target import 10:20route-target import 20:30route-target import 40:40
- B. Site 1:vrf defination ACME route-target import 15:15Site 3 :vrf deination ACME route-target import 15:15
- C. Site 1:vrf defination ACME route-target import 20:20route-target import 30:30route-target import 40:40
- D. Site 1:vrf defination ACME route-target export 15:15Site 3:vrf definition ACME route-target export 15:15
- E. Site 1:vrf definition ACME route-target import 30:30Site 3 :vrf definition ACME route-target import 10:10

**Answer: E**

**NEW QUESTION 107**



Refer to the exhibit. After the BGP TCP negotiation between Router A and Router B, what will be the value of the keep alive timer and the hold-down timer, respectively?

- A. 3 seconds and 9 seconds
- B. 60 seconds and 180 seconds

- C. 10 seconds and 9 seconds
- D. no value, because BGP negotiation will not be successful
- E. 10 seconds and 10 seconds
- F. 10 seconds and 30 seconds
- G. 3 seconds and 30 seconds
- H. 3 seconds and 10 seconds

**Answer: D**

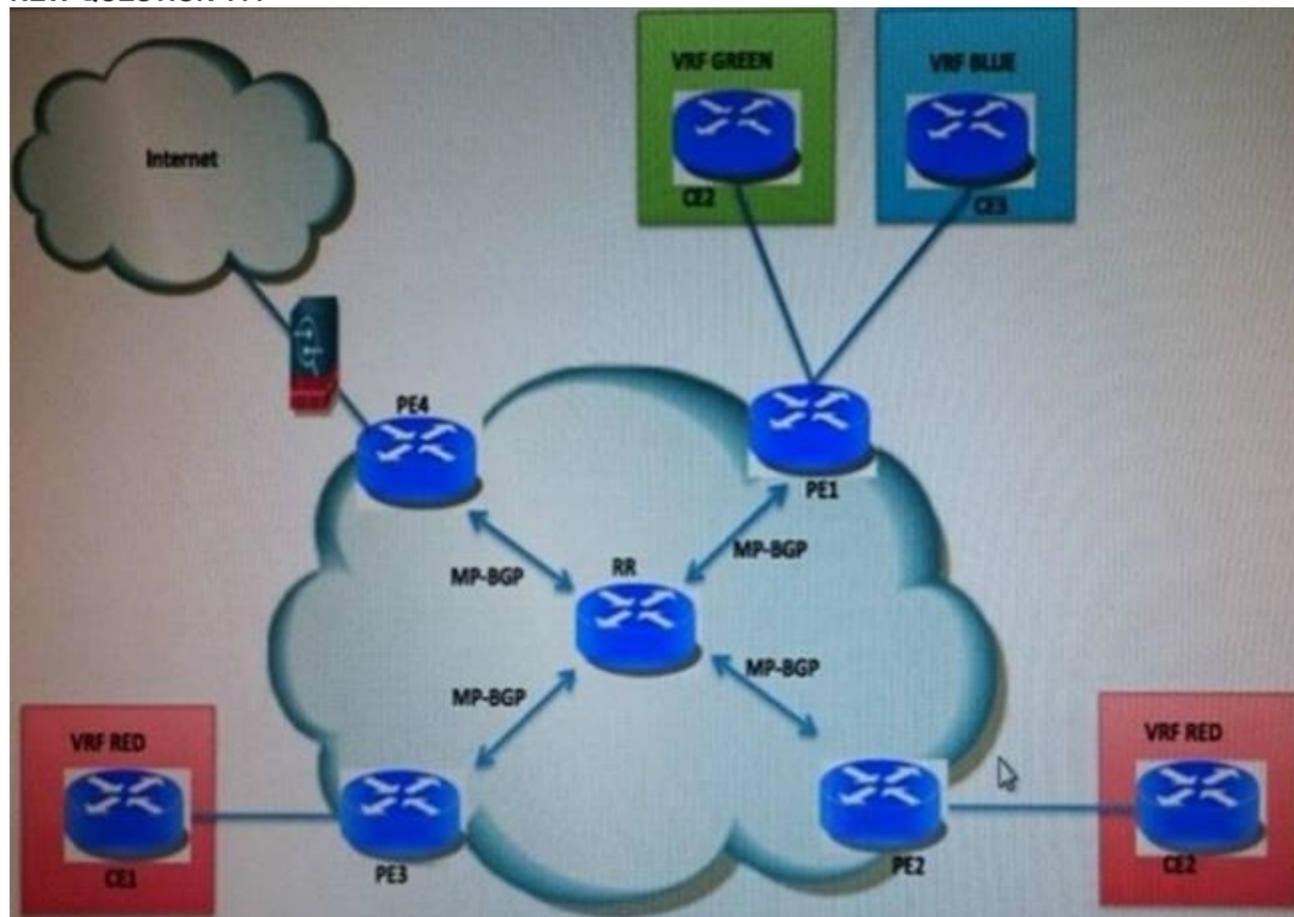
**NEW QUESTION 110**

A service provider is running a single-area OSPFv2 instance in the MPLS network. The OSPF convergence time is becoming excessively slow as the service provider MPLS network grows. Which two action can improve network performance without implementing a multimedia design? (Choose two)

- A. Configure incremental SPF
- B. Reduce type 5 LSAs
- C. Implement Partial Route Computation
- D. Limit number of TLVs
- E. Enable LSA group pacing

**Answer: AE**

**NEW QUESTION 111**



Refer to the exhibit. The Service Provider is deploying Internet service to its VRF customers by using vrf INTERNET. A dedicated firewall provides NAT functionality towards the Internet. Assume that IP address overlapping between VRFs is not an issue.

Which three configuration steps are required to add Internet service to the VRF customers? (Choose three.)

- A. Export the RD of vrf INTERNET from all customer VRFs.
- B. Originate a default route on PE4 in vrf INTERNET.
- C. Import the RD from vrf INTERNET in all customer VRFs.
- D. Originate a default route on the firewall in vrf INTERNET.
- E. Import the VRF "INTERNET" Route Target in all customer VRFs.
- F. Import the Route Target of all customer VRFs in vrf INTERNET.
- G. Leak all VRF routes to the global routing table.

**Answer: BEF**

**NEW QUESTION 113**

Which two options are characteristics of MoFRR? ( Choose two)

- A. Uses additional PIM join toward source
- B. Based on multicast forward error correction feature
- C. Based on PIM Fast Route
- D. Requires MPLS TE FRR enabled with link protection and node protection
- E. Utilizes two equal-cost paths toward source

**Answer: AE**

**NEW QUESTION 115**

A network engineer is configuring a POS interface on Cisco router running a cisco IOS Software. The POS interface must permit logging of payload label and C2 mismatch SONET/SDN alarms. Which option is the correct configuration?

Interface pos<number> Pos report pplm

- A. Interface pos<number> Pos report all
- B. Interface pos<number> Pos report encap
- C. Interface pos<number> Pos report ppdi
- D. Interface pos<number> Pos report ptim

**Answer:** A

**NEW QUESTION 118**

Which mechanism protects the control and management planes of a cisco IOS device to maintain routing stability, network reachability, and packet delivery?

- A. RTBH
- B. BGP Flow Spec
- C. MQC CLI
- D. CPPr
- E. NetFlow

**Answer:** D

**NEW QUESTION 123**

Which routing table is used by PEs and ASBRs to store all VPN routes that need to be exchanged in an Inter-AS L3VPN option B scenario?

- A. IGP table
- B. VRF routing table
- C. Global routing table
- D. BGP table

**Answer:** D

**NEW QUESTION 126**

An engineer is troubleshooting L3VPN traffic loss over the MPLS-enabled core network when new core links were enable. Assuming that the IGP is properly configured, which issue causes a temporary data flow blackholing when the IGP and LDP reconverges?

- A. MPLS-TE tunnels without LDP adjacencies are used over the new links black-holing the traffic before the LDP label exchange is completed
- B. MP-BGP sessions between PE and RR routers require extra time to reconverge than the underlying IGP
- C. IP packets are forwarded as soon as routes are learned over a new IGP adjancey before the label exchange happens over the new links
- D. LDP is a Layer 2 protocol forwarding Label packets before the IGP reconverged

**Answer:** C

**NEW QUESTION 131**

A content provider uses ISP-A and ISP-B for Internet transit service for the purpose of redundancy and load balancing. The content provider has one address range assigned to it. Which two techniques achieve the load balancing and redundancy for inbound traffic? (Choose two)

- A. BGP Local-preference attribute
- B. BGP MED attribute
- C. Use ISP-A for outbound traffic and ISP-B for inbound traffic
- D. BGP AS-prepend technique
- E. Address range split into two more specific prefixes, then advertise one specific prefix per ISP
- F. Aggregate all prefixes received from both ISPs into a less-specific prefix

**Answer:** DE

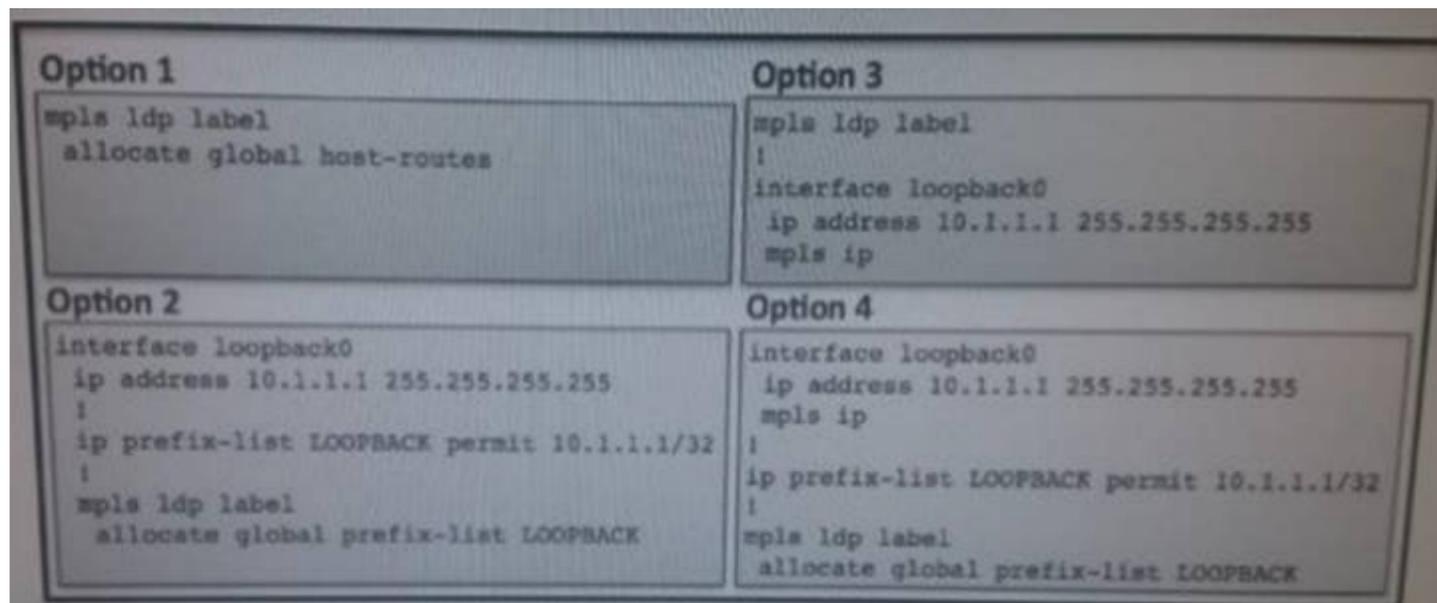
**NEW QUESTION 133**

An enterprise customer has recently purchased a WAN link from a service provider. BGP is running over this WAN link. An engineer notices that the CE router uses an large amount of system resources to process routing updates by filtering out unwanted routing updates received from the PE, which configuration can be applied to reduce the amount of processing required on the CE router that is not accepting full routes from PE?

- A. Enable the BGP prefix-based ORF capability CE and PE to filter out unwanted routing updates at the source
- B. On CE, apply an outbound route-map on BGP PE-neighbor to filter all the undesired BGP updates learned from the PE
- C. Enable BGP flowspec between CE and PE to negotiate which BGP prefixes to advertise
- D. On CE place an inbound ACL on the interface-facing PE to filter all unwanted BGP prefixes

**Answer:** A

**NEW QUESTION 136**



Refer to the exhibit. Which Cisco IOS XE configuration method allocates a label for prefixes with a /32 subnet mask only?

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

**Answer:** A

**NEW QUESTION 138**

Which BGP feature improves the convergence and response time to adjacency changes with BGP neighbors?

- A. reducing BGP scanner timing to the minimum that is supported
- B. BGP Multihop
- C. Next-Hop Address Tracking
- D. Fast Peering Session Deactivation
- E. TTL Security Check

**Answer:** E

**NEW QUESTION 140**

In order to validate update message that contain the BGPsec\_path attribute, the recipient must be two pieces of data that are obtained from valid PPKI certifications and ROAs. Which are these two pieces of data? (Choose two)

- A. The public key infrastructure with the necessary certificate objects, the dig
- B. The OPEN BGP messages that is successfully negotiated between BGP speakers to use the new BGP attribute, the BGPsec\_Path
- C. The exchanged certificate with internet Routing Registries using cryptographic identity management systems
- D. The AS number and the list of IP address prefix for each valid ROA
- E. The AS number, public key, and subject key identifier for each valid RPKI router certificate

**Answer:** DE

**NEW QUESTION 145**

Which two sets of configuration implements CBTS? (Choose two)

- A. Create multiple MPLS TE from the same headend to the same tail-end
- B. Assign a policy-map defining a CBWFQ on an MPLS TE tunnel
- C. Create a master tunnel to which other tunnels can be members
- D. Create two bandwidth pools a global pool and a pool
- E. Create a PBR to use multiple MPLS TE tunnels according to the EXP value

**Answer:** AC

**NEW QUESTION 147**

Which OSPFv3 LSA is never Flooded beyond the link?

- A. Interarea router LSA
- B. Intra-area prefix LSA
- C. Link LSA
- D. Network LSA
- E. Router LSA

**Answer:** C

**NEW QUESTION 150**

Which protocol functions as the transfer protocol between the Cisco Open SDN Controller and forwarding devices?

- A. OSPF or IS-IS
- B. BGP-LS

- C. OpenFlow
- D. PCEP

**Answer: C**

**NEW QUESTION 154**

A service provider has the following VPLS requirements :

\*A PE must learn dynamically remote PEs that are members of the same VPLS domain

\*The VPLS signaling must be in a point-to-multipoint fashion way according to RFC 4761 (Kompella)

Which feature must be enabled to meet these requirements?

- A. RSVP signaling
- B. LDP signaling
- C. BGP signaling
- D. RSVP auto-discovery
- E. LDP auto-discovery

**Answer: C**

**NEW QUESTION 157**

Operations team must deploy Inter-Chassis Communication Protocol to provide high availability services to dual-homed CE nodes. On which nodes must the Inter-Chassis Communication Protocol be configured to meet this requirement?

- A. P nodes
- B. Metro Ethernet switches nodes
- C. CE nodes
- D. PE nodes

**Answer: D**

**NEW QUESTION 162**

Which are the two characteristics of 4G/L TE networks? (Choose two)

- A. eNodeB uplinks to the packet core use the lub interface
- B. 4G/LTE networks use centralized MTSO-based handoff between cell towers
- C. The E-UTRAN model forms the basis of 4G/L TE RAN technologies
- D. eNodeBs in the cell towers requires less built-in intelligence
- E. RNCs in 4G/LTE networks have built-in MPLS support
- F. Using the X2 interface, eNodeBs have direct communication between each other

**Answer: DF**

**NEW QUESTION 165**

Which standard provides insurance that the new hardware rollout plan meets certain environment design guidelines before deployment?

- A. NAS
- B. eTOM
- C. NEBS
- D. ITIL
- E. COBIT

**Answer: C**

**NEW QUESTION 167**

Which protocol provides an alternative to the STP, which provides a way to control network loops, handle link failures, and improve convergence time and can coexist with STP?

- A. PBB-EVPN
- B. IEEE 802.1ah
- C. Flex links
- D. E-TREE
- E. REP

**Answer: E**

**NEW QUESTION 171**

Which Cisco IOS XR feature is used to define route strategies in a modular form that allows common rule sets to be treated and processed independently?

- A. Route maps
- B. Policy maps
- C. BGP templates
- D. RPL policy

**Answer: D**

**NEW QUESTION 176**

A customer has a requirements record voice calls for IPT connected on switch A using VLAN 200. Record traffic should be forwarded to the IPCC recording server, which is connected on switch B, voice recording is not working. Assuming that RSPAN source monitoring is properly set, which action fixes this problem?

- A. On switch B, the monitor session 1 destination remote<interface\_config\_to\_recording\_server> command must be applied
- B. On switch B, the port connects to the recording server must have an IP address and be accessible via VLAN 200
- C. On switch B, the port that connects to the reording server must be accessed on VLAN 200
- D. On switch A and switch B, the remote-span command must be configured on the mirroring dedicated VLAN

**Answer: D**

#### NEW QUESTION 178

Two MPLS VPN customers want to acquire Internet access. They make use of overlapping address space but do not want to use NAT on the CPEs. Which action satisfies this requirement?

- A. Configure each VRF with a default route in the global table by using a static route toward each customer's range, pointing to the customer interface in the global table.
- B. Configure VRF-aware NAT with a default route in the global table for each VRF that requires it
- C. Configure a separate PE-CE sub interface that terminates in the global routing table on the PE.
- D. Configure the Internet upstream interface inside a VRF, Which becomes an extranet VRF to which customers join and make use of NAT in this VRF.

**Answer: AB**

#### NEW QUESTION 183

An engineer sees that traffic is not flowing between two line cards on an Cisco ASR 9000 Series device. To troubleshoot this issue, what should the engineer do first?

- A. Verify whether there are errors on the EOBCs
- B. Verify whether there are PFM alarms on the line cards and RSPs
- C. Verify whether LPTS configuration is prohibiting traffic between the two line cards
- D. Verify whether there are alarms in the system diagnostics

**Answer: B**

#### NEW QUESTION 187

Which technology provides fast forwarding path failure detection times for all media types, encapsulations, technologies, and routing protocols?

- A. BFD
- B. MPLS TE
- C. NSF
- D. UDLD
- E. IP Dampening

**Answer: A**

#### NEW QUESTION 189

A network engineer needs to connect two core switches that use Gigabit Ethernet interfaces in an MPLS backbone and that are separated by a distance of 60 km. Which Cisco GBIC achieves this goal?

- A. Cisco 1000BASE-T GBIC
- B. Cisco 1000BASE-SX GBIC
- C. Cisco 1000BASE-LX/LH GBIC
- D. Cisco 1000BASE-ZX GBIC

**Answer: D**

#### NEW QUESTION 191

In an NFV environment, what is the role of an SDN controller?

- A. Dynamically controls all of the software components
- B. Spins up the VMs that are required to build the NFVs
- C. Dynamically scales up and scales down VM resources
- D. Connects the virtualized networking devices through a common policy-based model

**Answer: D**

#### NEW QUESTION 192

Network Operations team has configured the routers with the logging buffered warnings command. Which three severity levels appear in the router syslog? (Choose three)

- A. Informational
- B. Alerts
- C. Notifications
- D. Emergencies
- E. Errors
- F. Debugging

**Answer: BDE**

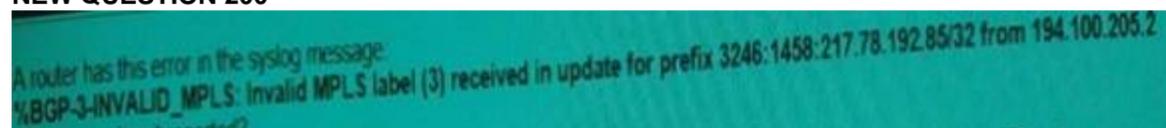
**NEW QUESTION 195**

Which BGP feature protects the external BGP peering session from CPU utilization-based attacks that use forged IP packets?

- A. BGP multihop
- B. TTL security check
- C. BGP FlowSpec
- D. Secure BGP

**Answer: B**

**NEW QUESTION 200**



A router has this error in the syslog message What issue has it reported ?

- A. The BGP label 3 can be used only in a BGP VPNv4 update for a directly connected VPNv4 prefix of the sending PE router
- B. The BGP label 3 can be used only in a BGP VPNv4 update for multicast address-family
- C. The BGP label 3 can be used only in a BGP VPNv4 update if the RD is 0:0
- D. The BGP label 3 can be used as a label for a VPNv4 prefix

**Answer: D**

**NEW QUESTION 205**

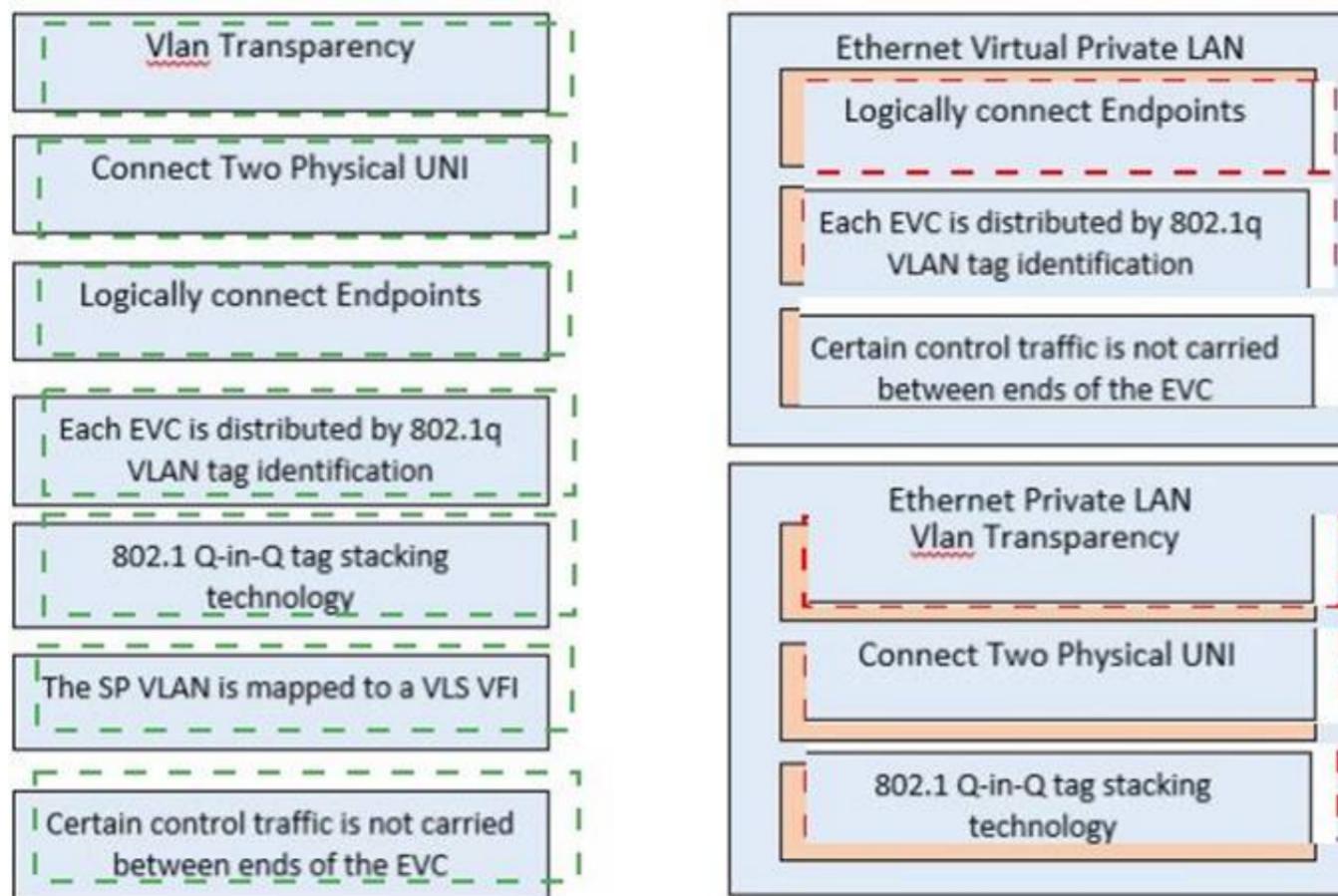
DRAG DROP

Drag and drop the Ethernet Virtual Circuit characteristics on the left onto the correct classification according to the current Metro Ethernet forum term on the right. Not all options are used.

|                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|----------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Vlan Transparency                                              | <div style="border: 1px solid black; padding: 5px; margin-bottom: 10px;"> <p style="text-align: center;">Ethernet Virtual Private LAN</p> <div style="border: 1px solid black; height: 20px; width: 100%; margin-bottom: 5px;"></div> <div style="border: 1px solid black; height: 20px; width: 100%; margin-bottom: 5px;"></div> <div style="border: 1px solid black; height: 20px; width: 100%;"></div> </div> <div style="border: 1px solid black; padding: 5px;"> <p style="text-align: center;">Ethernet Private LAN</p> <div style="border: 1px solid black; height: 20px; width: 100%; margin-bottom: 5px;"></div> <div style="border: 1px solid black; height: 20px; width: 100%; margin-bottom: 5px;"></div> <div style="border: 1px solid black; height: 20px; width: 100%;"></div> </div> |
| Connect Two Physical UNI                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Logically connect Endpoints                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Each EVC is distributed by 802.1q VLAN tag identification      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| 802.1 Q-in-Q tag stacking technology                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| The SP VLAN is mapped to a VLS VFI                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Certain control traffic is not carried between ends of the EVC |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |

**Answer:**

**Explanation:**



**NEW QUESTION 206**

An operator enabled BFD in echo mode and now CPU is high. Which option is the most likely solution to the problem?

- A. Disable ICMP redirects on an interface
- B. Change from echo mode to asynchronous mode
- C. Disable BFD altogether
- D. Reduce the BFD packet rate
- E. Reduce the BFD control plane packet rate

**Answer:** A

**NEW QUESTION 211**

An operations engineer configured a BGP session between two routers, After deploying the configuration, the engineer notices that the BGP session cannot be established and he sees an error message in the system log. After the show bgp summary command is issue, the engineer sees in the output that BGP router ID is set to 0.0.0.0 what is the root cause of this issue?

- A. A cease notification message is being sent to the neighbor because neighbor router ID does not match the neighbor configuration
- B. The router did not obtain a BGP router ID
- C. The bgp router-id command was not found
- D. The router does have an interface with an IPv4 address assigned that is in the up/up state
- E. The BGP capability negotiation failed to negotiate the router ID information between BGP neighbors
- F. The router has found a better router ID and it is in the process of switching to the new router ID

**Answer:** B

**NEW QUESTION 216**

Which are the two limitations of the predefined NAT solution? (Choose two)

- A. Only the port-presentation option is available
- B. NetFlow and syslog are not supported
- C. The predefined mode cannot be turned on or off during the active translations
- D. Port allocation must be uniform for all subscribers
- E. The global port limit parameter is not available for the predefined mode

**Answer:** DE

**NEW QUESTION 220**

Which ADSL implementation type involves configuring the ATU-R PPP authentication information (Login and Password), Which provides per sessions Authentication, Authorization, and Accounting without requiring PPP client on each PC on the subscriber Side?

- A. PPPoE
- B. PPPoA
- C. RFC 1483 Routing
- D. RFC 1483 Bridge

**Answer:** A

**NEW QUESTION 222**

A regional operation center deployed SQL servers that were synchronized with the company's backend storage servers by using a 768 Kbps link. Although network congestion is not a frequent issue, the VoIP service suffers a serious degradation. Which two technologies can be implemented to improve the quality of the customer's VoIP traffic? (Choose two)

- A. A decrease in the wan interface buffer size
- B. LLQ for management traffic
- C. cRTP
- D. TCP/UDP filtering based on NBAR
- E. TCP traffic prioritization
- F. LFI
- G. TCP starvation

**Answer:** CF

**NEW QUESTION 224**

Which two flexible service mapping features that are used on the ES40 line card can classify traffic into different service instances, in order to consume fewer VLANs? (Choose two.)

- A. CoS
- B. DSCP
- C. IP precedence
- D. MPLS experimental bit
- E. ToS
- F. Ether Type

**Answer:** AF

**NEW QUESTION 227**

Which option describes a service function as defined in SDN?

- A. a virtual server
- B. a virtual chain
- C. a virtual network function
- D. a virtual device

**Answer:** C

**NEW QUESTION 229**

ISP\_X is IPv4 only in the core with MPLS enabled in the backbone. ISP\_X must provide IPv6 services to its customers including IPv6 Internet access. Which IPv6 transition mechanism allows ISP\_X to provide IPv6 connection by leveraging the existing MPLS core network?

- A. Teredo Tunneling
- B. NAT64
- C. 6PE
- D. 6RD
- E. ISATAP

**Answer:** C

**NEW QUESTION 230**

A service provider network engineer is defining a Qos architecture with the following requirements :

- \*The service provider does not provide managed CPE services.
- \*Customer throughput of both connection-oriented and non-connection-oriented must be managed.
- \*The service provider network capacity must be protected by limiting customer traffic to the purchased circuit bandwidth.
- \*Latency-sensitive traffic must be accommodated.

Which recommendation is the network engineer defining?

- A. The service provider must shape traffic that is outbound on the PE interface
- B. The service provider must shape traffic that is inbound on the PE interface
- C. The Customer must shape all traffic that is outbound on the CE interface
- D. The service provider must police traffic that is inbound on the PE interface
- E. The service provider must police traffic that is outbound on the PE interface
- F. The customer must police all traffic that is outbound on the CE interface

**Answer:** D

**NEW QUESTION 235**

In a segment routing-enabled network, which two protocols perform label distribution? (Choose two)

- A. IS-IS
- B. LDP
- C. BGP
- D. OSPF
- E. RSVP-TE

**Answer:** AD

**NEW QUESTION 240**

Which three security mechanisms are used to mitigate or protect against DoS attacks that are targeted at a router? (Choose three)

- A. NSR
- B. GSTM
- C. uRPF
- D. BFD
- E. FRR
- F. CoPP

**Answer:** BCF

**NEW QUESTION 245**

Which description is true of what the fast-reroute keep-all-paths command accomplishes when under OSPF process?

- A. Besides the regular LFA backup paths, this command also installs the remote LFA backup paths
- B. By default, only the /32 routes have a backup path installed
- C. This command creates a backup path for the router with any subnet mask
- D. All backup routes-not only the best backup route-are installed in the OSPF RIB
- E. All possible alternate routes are installed in the OSPF RIB, even if the alternate paths do not meet LFA criteria (the LFA inequalities)

**Answer:** C

**NEW QUESTION 246**

| Local Label | Outgoing Label | Prefix or Tunnel Id | Bytes Label Switched | Outgoing interface | Next Hop     |
|-------------|----------------|---------------------|----------------------|--------------------|--------------|
| 38          | 27             | 100.1.1.1/32        | 64                   | GigE0/0            | 172.16.31.31 |

Refer to the exhibit. Which statement is correct?

- A. If the labeled packet arrives with the bottom label of 27, the label is replaced with label 38 and the packet is sent out on the GigabitEthernet 0/0
- B. If the labeled packet arrives with the bottom label of 27, all of the labels are replaced with label 38 and the packet is sent out on the GigabitEthernet 0/0 interface
- C. If the labeled packet arrives with the topmost label of 27, the label is replaced with the label 38 and the packet is sent out on the GigabitEthernet 0/0 interface
- D. If the labeled packet arrives with the topmost label of 27, all of the labels are replaced with label 38 and the packet is sent out on the GigabitEthernet 0/0 interface.
- E. If the labeled packet arrives with the topmost label of 38, the label is replaced with label 27 and the packet is sent out on the GigabitEthernet 0/0 interface
- F. If the labeled packet arrives with the topmost label of 38, all labels are replaced with the label 27 and the packet is sent out on the GigabitEthernet 0/0 interface.

**Answer:** E

**NEW QUESTION 250**

A backbone carrier is approached by an ISP\_A which provides L3VPN services. The ISP\_A requires MPLS VPN services from the backbone carrier to establish connectivity between the two POPs of the ISP\_A. Which label protocol should the backbone carrier use to provide the proper connectivity that the ISP\_A requires?

- A. L2TPv3
- B. L2TPv2
- C. LDP
- D. GRE
- E. mGRE
- F. BGP

**Answer:** A

**NEW QUESTION 253**

A network engineer has a requirement to configure IP flow exporting using standard protocols on a Cisco IOS XE device. Which configuration achieves this goal?

- A.  
flow exporter EXPORTER destination 10.1.1.1  
export-protocol version 9  
transport udp 90
- B.  
flow exporter EXPORTER destination 10.1.1.1  
source Loopback 0  
transport udp 90
- C.  
flow exporter EXPORTER destination 10.1.1.1  
source Loopback 0  
transport udp 90 version ipfix
- D.  
flow exporter EXPORTER destination 10.1.1.1  
export-protocol ipfix transport udp 90

**Answer:**

**NEW QUESTION 256**

Refer to the exhibit. In regard to the traffic that is flowing from CE1 in the direction of CE2, what is the label stack in the packets that are leaving R6?

- A. {16}
- B. {16 25}
- C. {25}
- D. {0 25}

**Answer: D**

**NEW QUESTION 259**

Which two steps take place in the BGP Link State architecture? (Choose two)

- A. IGP is redistributed into BGP-LS
- B. Advertise the BGP-LS NLRI to the topology server
- C. IGP uses BGP LS data from remote peers
- D. Enable access to the Adj-RIB-In (BGP raw format) of a peer border router or provider edge router
- E. BGP downloads the received BGP LS data to the IGP component on the router

**Answer: AB**

**NEW QUESTION 261**

In an infrastructure As a service cloud deployment model, which two components are managed by the customer? (Choose two)

- A. hardware (server)
- B. Network storage
- C. Virtualization
- D. Operating System
- E. Runtime application

**Answer: DE**

**NEW QUESTION 262**

Which statement about the cisco intercloud fabric is true?

- A. It facilitates encrypted communications between VMs inside of private cloud
- B. It provides a virtual storage space for VMs inside of public cloud
- C. It dynamically establishes adjacencies between Cisco Intercloud Switch VMs
- D. It provides a Layer 2 extension of an enterprise network into the public cloud

**Answer: D**

**NEW QUESTION 265**

Which controller uses policy-based application profiles?

- A. OpenStack
- B. Cisco Open SDN controller
- C. OpenFlow Controller
- D. Cisco APIC
- E. Cisco UCS director

**Answer: D**

**NEW QUESTION 266**

Which component does NSF rely on to ensure that interfaces remain up during switchover and that lower layer protocol state is maintained?

- A. SSO
- B. BFD
- C. IP FRR
- D. LFA

**Answer: A**

**NEW QUESTION 270**

Which RP mechanism uses the TTL value to scope the RP address within the multicast domain?

- A. Auto-RP
- B. Embedded RP
- C. Anycast RP
- D. BSR

**Answer: A**

**NEW QUESTION 274**

Which technology enables operations to move the functionality of networking devices such as routers and firewalls away from proprietary hardware to servers and

off-the-shelf commercially available purpose-built hardware?

- A. Network Function Virtualization
- B. Business support systems
- C. Software Defined Networking
- D. Operations support systems
- E. OpenStack

**Answer:** A

**NEW QUESTION 277**

In IEEE 802.1ad deployments, which three represent valid port modes? (Choose three)

- A. UNI C-port
- B. NNI untagged
- C. NNI S-port
- D. UNI untagged
- E. NNI C-port
- F. NNI
- G. UNI S-port
- H. UNI T-port

**Answer:** AFG

**NEW QUESTION 278**

Which two restrictions of the trunk EFP are true? (Choose two)

- A. A bridge-domain number that is part of trunk EFP configuration can be shared only by other EFP if under the same port or interface
- B. Features about encapsulations specification are not supported
- C. Only one trunk port EFP can be configured under one port or interface
- D. Features that requires VLAN-specific values must be removed from the EFP trunk to from individual EFPs
- E. It supports only static EFPs that are user-configurable

**Answer:** CD

**NEW QUESTION 279**

Which three configuration sections are required on service provider PE router to enable IPv4 layer 3 VPN? (Choose three)

- A. Configure route targets that are used for importing and exporting customer VRF routes.
- B. Configure route distinguisher that is used for importing and exporting customer VRF routes.
- C. Implement MPLS for all customer-facing links.
- D. Configure the VPNv4 address-family under the MP-BGP configuration mode on the PE routers that participate in the customer VRF routing.
- E. Configure at least one interface that is assigned to a customer link as a member of the VRF
- F. Advertise customer route to all PE router by configure the IPv4 address-family under the MP-BGP configuration mode.

**Answer:** ADE

**NEW QUESTION 284**

Which version of IGMP is required for source specific multicast implementations?

- A. IGMP version 2
- B. Cisco group management protocol
- C. IGMP version 3
- D. IGMP version 1

**Answer:** C

**NEW QUESTION 287**

What is the routing paradigm in a segment routing-enabled network?

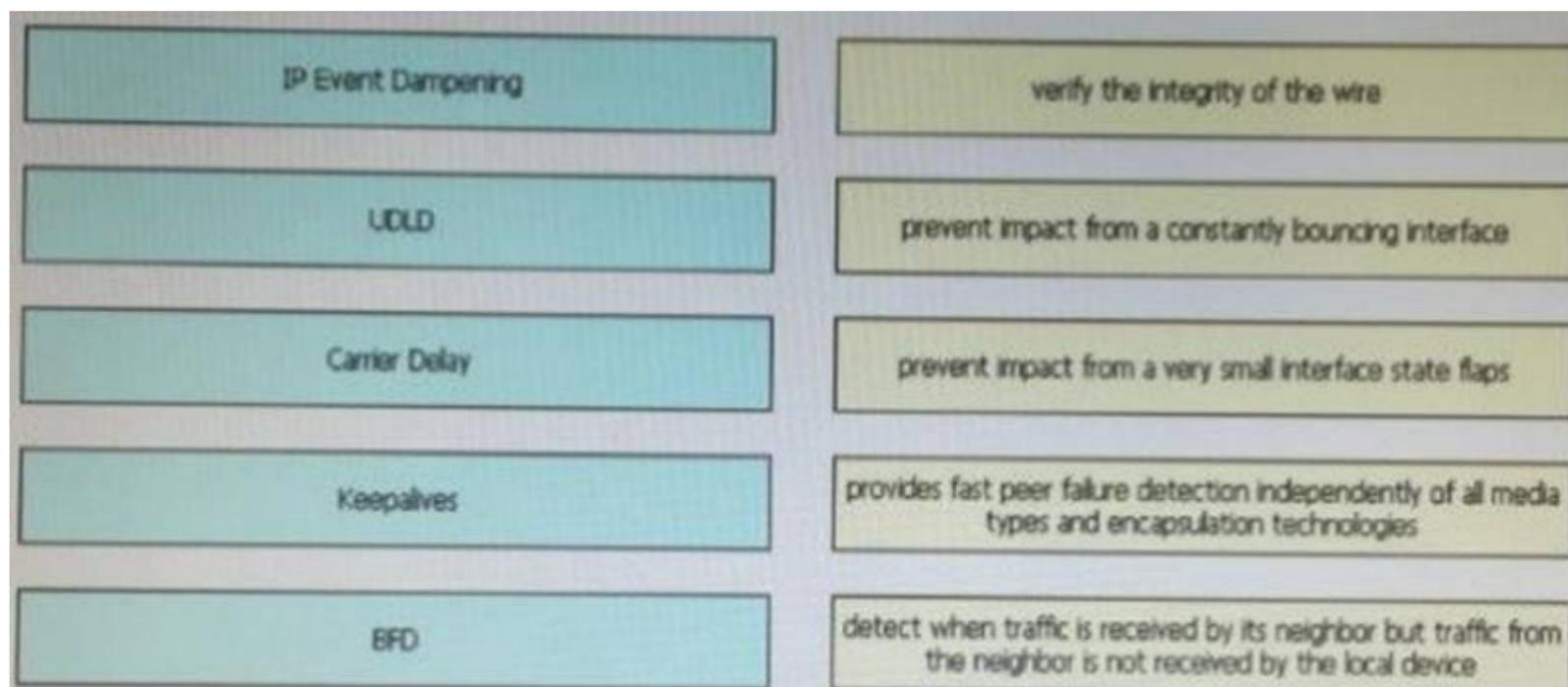
- A. Destination-based routing
- B. Source, destination and layer 4 port routing paradiagram
- C. Source-based and destination-based routing
- D. Source-based routing

**Answer:** D

**NEW QUESTION 291**

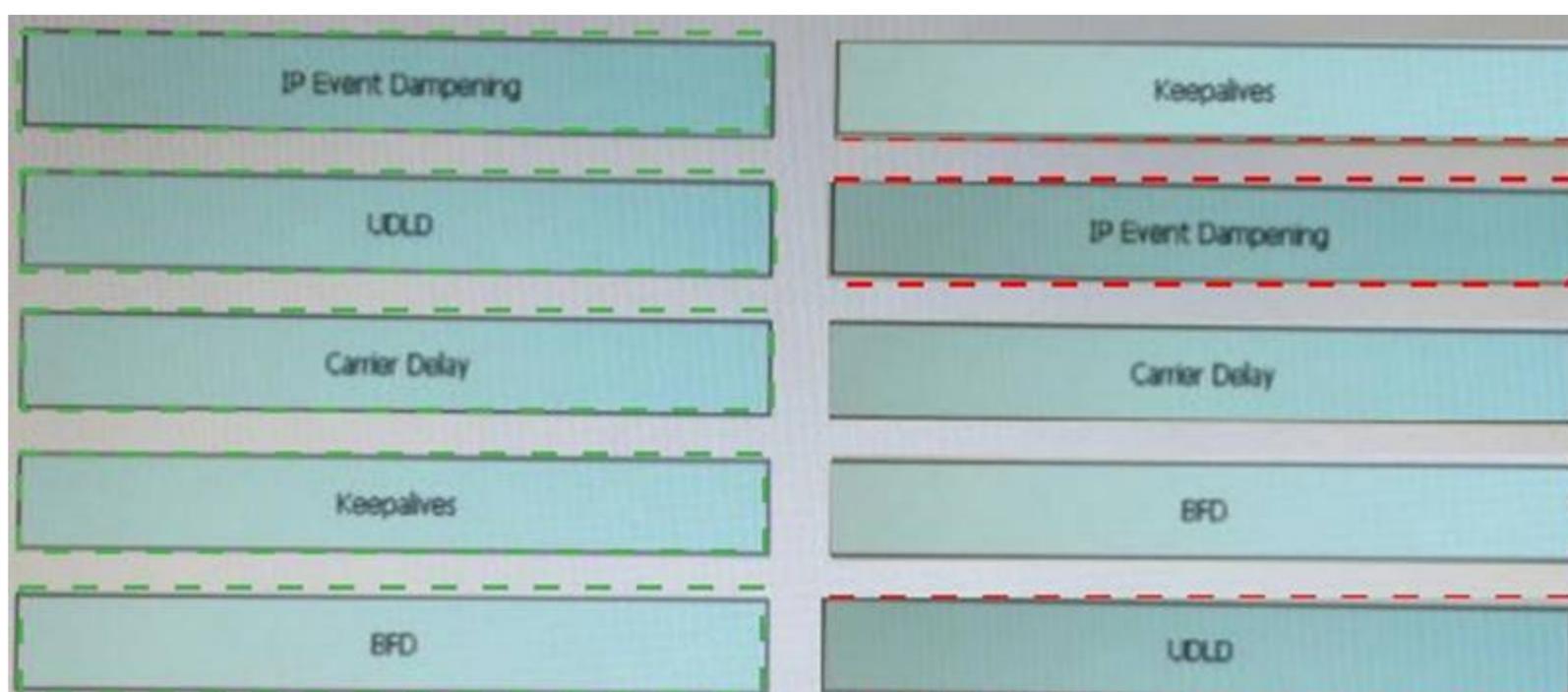
DRAG DROP

Drag and drop each fast detection mechanism on the left to its definition on the right.



**Answer:**

**Explanation:**



**NEW QUESTION 292**

Which Cisco IOS XR Virtualization technology provides full isolation between virtualized routing instances for extra control plane resources?

- A. HVR
- B. SVR
- C. SDR
- D. DRP

**Answer: C**

**NEW QUESTION 294**

Which two QoS mark methods can a service use to mark user traffic and be visible only internally to the router? (Choose two)

- A. 802.1p
- B. DS-TE
- C. discard-class
- D. ToS
- E. QoS-group
- F. MPLS EXP bits
- G. DSCP

**Answer: CE**

**NEW QUESTION 298**

What is the advantage of BGP confederation compared to BGP route reflector implementation?

- A. Confederation provides better redundanc
- B. Route reflector clients can peer to only one cluster
- C. Confederation allows use of template session and template polic
- D. Route reflector can use only peer-group

- E. The IBGP policies can differ internally within and between the sub-autonomous systems
- F. Confederation is more scalabl
- G. Route reflector implementation still requires confederation to eliminate completely the full mesh requirement

Answer: C

**NEW QUESTION 299**

DRAG DROP

Drag the command on the left to the correct step on the right to perform point-to-point Ethernet over MPLS configuration on a Cisco IOS-XR router.

|                                 |        |
|---------------------------------|--------|
| interface name                  | Step 1 |
| mpls static label               | Step 2 |
| xconnect group name             | Step 3 |
| l2vpn                           | Step 4 |
| neighbor IP address pw-id value | Step 5 |
| p2p name                        | Step 6 |

Answer:

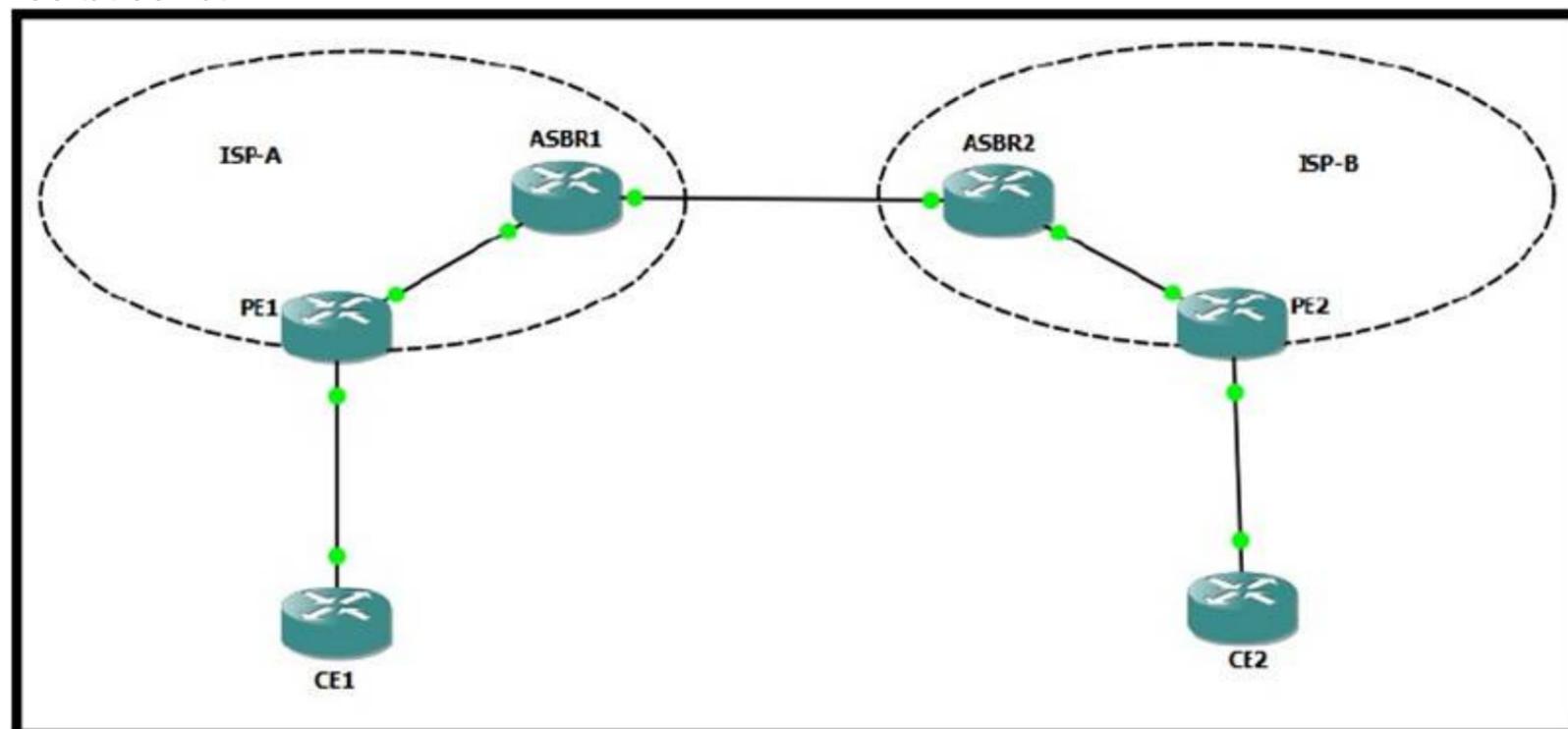
Explanation:

Drag the command on the left to the correct step on the right to perform point-to-point Ethernet over MPLS configuration on a Cisco IOS-XR router.

|                                 |                                 |
|---------------------------------|---------------------------------|
| interface name                  | l2vpn                           |
| mpls static label               | xconnect group name             |
| xconnect group name             | p2p name                        |
| l2vpn                           | interface name                  |
| neighbor IP address pw-id value | neighbor IP address pw-id value |
| p2p name                        | mpls static label               |

**NEW QUESTION 301**

Refer to the exhibit.



An inter-AS VPN between ISP-A and ISP-B is being deployed to support end-to-end connectivity for CE-1 and CE-2. For scalability reasons, the ASBR routers cannot exchange VPN routes for CE-1 and CE-2.

Which two configurations are needed to support this requirement? (Choose two.)

- A. one VRF on the ASBRs for each CE
- B. send-labels on the ASBRs
- C. address-family VPNv4 on the ASBRs
- D. ebgp-multihop between the PEs
- E. ebgp-multihop between the ASBRs

Answer: BD

**NEW QUESTION 304**

DRAG DROP

Drag and drop the BGP path attributes description on the left onto the correct BGP path attribute classification on the right

|                                                                                                                |                          |
|----------------------------------------------------------------------------------------------------------------|--------------------------|
| may not be included with the prefix advertisement                                                              | well-known mandatory     |
| stays with the route advertisement from AS to AS and does not have to be recognized by all BGP implementations | well-known discretionary |
| must be recognized by all BGP implementations and must be included with every prefix advertisement             | optional transitive      |
| cannot be shared from AS to AS                                                                                 | optional nontransitive   |

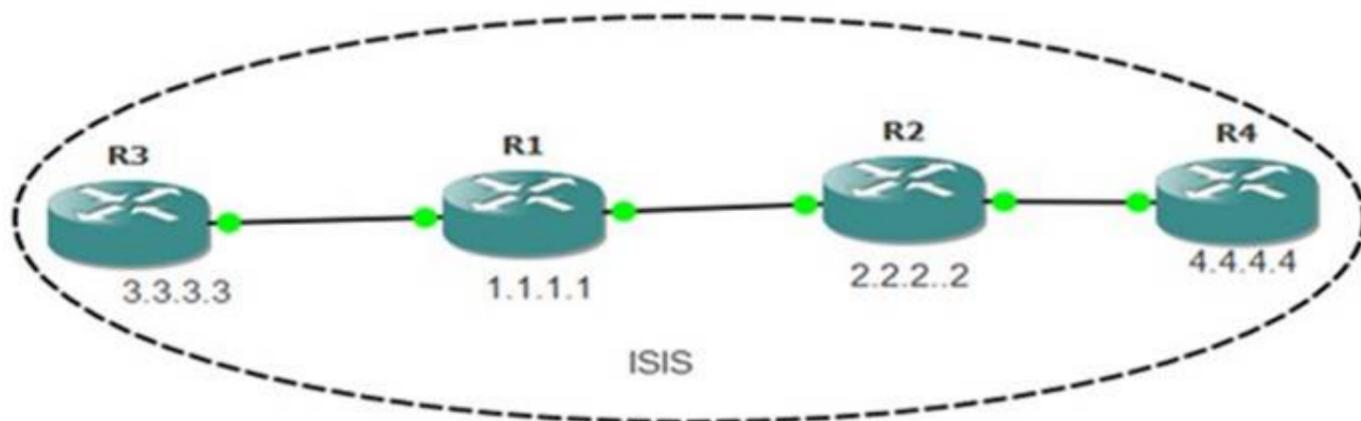
Answer:

Explanation:

|                                                                                                                |                                                                                                                |
|----------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------|
| may not be included with the prefix advertisement                                                              | must be recognized by all BGP implementations and must be included with every prefix advertisement             |
| stays with the route advertisement from AS to AS and does not have to be recognized by all BGP implementations | may not be included with the prefix advertisement                                                              |
| must be recognized by all BGP implementations and must be included with every prefix advertisement             | stays with the route advertisement from AS to AS and does not have to be recognized by all BGP implementations |
| cannot be shared from AS to AS                                                                                 | cannot be shared from AS to AS                                                                                 |

**NEW QUESTION 306**

Refer to the exhibit.



```
*Mar 1 01:38:35.299:ISIS-Upd: TLV contents different, code 128
*Mar 1 01:38:35.300:ISIS-Upd: TLV code mismatch (2, 22)
*Mar 1 01:38:35.304:ISIS-Upd: TLV contents different, code 135
```

```
R4#show clns protocol
System Id: 0000.0000.0004.00 IS-Type: level-1-2
Generate narrow metrics: level-1-2
Accept narrow metrics: level-1-2
Generate wide metrics: none
Accept wide metrics: none
```

```
R4#show isis neighbors
System Id Type Interface IP Address State Holdtime Circuit
R2 L1 Fa0/0 10.10.24.2 UP 23 R4.01
R2 L2 Fa0/0 10.10.24.2 UP 29 R4.01
```

```
R2#show clns protocol
System Id: 0000.0000.0002.00 IS-Type: level-1-2
Generate narrow metrics: none
Accept narrow metrics: none
Generate wide metrics: level-1-2
Accept wide metrics: level-1-2
```

Why is R4 unable to install any ISIS routes in the routing table?

- A. ISIS LSP has an authentication issue.
- B. No DR has been elected on this segment.
- C. The metric style is mismatched.
- D. Circuit levels are different.

Answer: C

**NEW QUESTION 309**

Refer to the exhibit.  
\*\*\*MISSING EXHIBIT\*\*\*

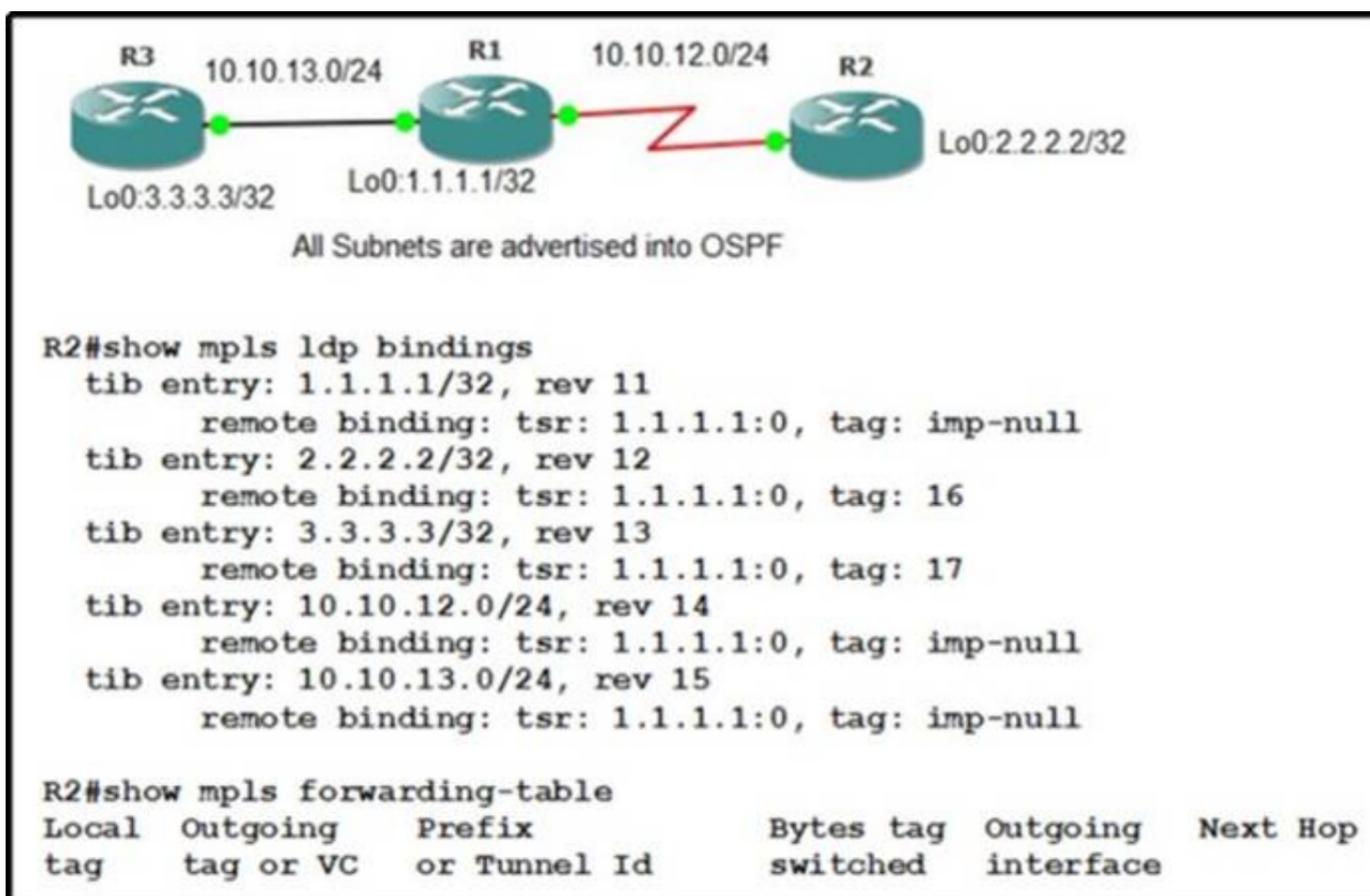
Which two statements are true? ( Choose two)

- A. This router has the ip multicast longest-match command applied
- B. This router is forwarding the multicast traffic to the Ethernet 0/0 interface
- C. This router runs multicast with default multicast commands
- D. This router cannot have MP-BGP safi 2 address-family configured
- E. This router uses route 10.1.1.0/24 toward the source to fulfill the multicast RPF requirements

Answer: AE

**NEW QUESTION 312**

Refer to the exhibit.



Routers R1 and R2 have exchanged label binding information. What is preventing the labels from populating the MPLS forwarding table?

- A. MTU on the serial interface cannot accommodate labels.
- B. Cisco Express Forwarding is not running.
- C. The MPLS label distribution protocol is mismatched.
- D. Inbound access list 100 is applied on the serial interface.

**Answer: B**

**NEW QUESTION 313**

A backbone carrier is approached by an ISP\_A which provides L3VPN services. The ISP\_A requires MPLS VPN services from the backbone carrier to establish connectivity between the two POPs of the ISP\_A Which label protocol should the backbone carrier use to provide the proper connectivity that the ISP\_A requires?

- A. L2TPv3
- B. L2TPv2
- C. LDP
- D. GRE
- E. mGRE
- F. BGP

**Answer: C**

**NEW QUESTION 315**

A network engineer wants to deploy a VPLS service within the MPLS backbone. The backbone expert team advises that LDP for signaling is used. Which two characteristics of LDP would influence their decision? (Choose two.)

- A. BGP does not need to be run on the PE device.
- B. Non-convergence with IP VPN operation.
- C. There is no autodiscovery.
- D. LDP signaling requires a loopback-based router ID.
- E. CDP is not required on the PE routers.

**Answer: AC**

**NEW QUESTION 318**

In Ethernet Aggregation applications, which option is needed when the U-PE connects to an N-PE and broadband remote access server?

- A. Ethernet Multipoint Service
- B. E1
- C. VPLS
- D. DSLAM
- E. wire emulation

**Answer: D**

**NEW QUESTION 319**

```

interface Tunnel 1000
 ip unnumbered Loopback 0
 tunnel destination 10.0.0.1
 tunnel mode mpls traffic-eng
 tunnel mpls traffic-eng autoroute announce
 tunnel mpls traffic-eng exp-bundle master
 tunnel mpls traffic-eng exp-bundle member Tunnel 1001
 tunnel mpls traffic-eng exp-bundle member Tunnel 1011
!
interface Tunnel 1001
 ip unnumbered Loopback 0
 tunnel destination 10.0.0.1
 tunnel mode mpls traffic-eng
 tunnel mpls traffic-eng autoroute announce
 tunnel mpls traffic-eng path-option 1 explicit name FASTPATH
 tunnel mpls traffic-eng exp 1
!
interface Tunnel 1011
 ip unnumbered Loopback 0
 tunnel destination 10.0.0.1
 tunnel mode mpls traffic-eng
 tunnel mpls traffic-eng autoroute announce
 tunnel mpls traffic-eng path-option 10 dynamic
 tunnel mpls traffic-eng exp 3
 mpls traffic-eng administrative-weight 111

```

Refer to the exhibit. Which technology is being implemented?

- A. CBTS
- B. DS-TE
- C. IP FRR
- D. PBTS

**Answer:** A

**NEW QUESTION 321**

Which two statements about MPLS Label Distribution Protocol (LDP) are true? (Choose two)

- A. LDP hello packets are sent to TCP 646.
- B. LDP session packets are sent to TCP 646.
- C. LDP session packets are sent to TCP 711.
- D. LDP hello packets are sent to TCP 711.
- E. LDP hello packets are sent to UDP 711.
- F. LDP hello packets are sent to UDP 646.

**Answer:** BF

**NEW QUESTION 324**

A security risk has been discovered on the Service Provider MPLS core network during a network audit. Traceroute between the customer sites displays IP addresses of the Service Provider MPLS core. What should be done to hide the IP addresses of the Service Provider MPLS core from the customer traceroute utility?

- A. Configure an access list to block traceroute traffic.
- B. Apply the no mpls ip propagate-ttl forward command.
- C. Enable MPLS LDP session protection.
- D. Configure an LDP label allocation filter.
- E. Apply the no mpls ip propagate-ttl local command.

**Answer:** B

**NEW QUESTION 327**

A service provider has a requirement to deliver WAN gateway functionality to multi-tenant, provider-hosted clouds. Which Cisco platform meets this requirement?

- A. Cisco ASR 9000 series
- B. Cisco NX-OS
- C. Cisco ASR 1000 Series
- D. Cisco CSR 1000v
- E. Cisco CRS series

**Answer:** D

**NEW QUESTION 328**

Two routers that run LDP have multiple links that connect them to each other. Which configuration ensures that the label bindings are not flushed from the LIB if one of the links fails?

- A. The MPLS LDP sync command under router process configuration mode

- B. The mpls ldp autoconfig command
- C. The mpls ip command on an MPLS TE tunnel
- D. The mpls ldp discovery targeted-hello accept command

**Answer:** A

**NEW QUESTION 331**

In optical transmission systems, chirped lasers are used for the purpose of:

- A. Turning the laser to a specific ITU channel
- B. Keeping the signal wavelength "locked" to a specific technology
- C. Suppressing FWM and SBS non-linear effects
- D. None of the above

**Answer:** D

**NEW QUESTION 334**

In which way does the DS-Lite IPv6 transitioning mechanism differ from IPv6 Dual-Stack?

- A. DS-Lite is a combination of tunnel and translation technologies.
- B. DS-Lite is a transition technology that gives full IPv6 connectivity for IPv6 capable hosts that are on the IPv4 Internet but have no native connection to an IPv6 network.
- C. DS-Lite is an automatic tunnel where the tunnel destination is determined by the IPv4 address extracted from the IPv6 address that starts with the prefix 2002::/16.
- D. DS-Lite is a stateless tunneling mechanism with a lightweight and secure manner without requiring upgrades to existing IPv4 access network infrastructure.

**Answer:** A

**NEW QUESTION 338**

An engineer is troubleshooting Precision Time Protocol on Cisco ASR 9000 router and noticed the protocol is running in a Multicast mode. Which two results regarding the messages can the engineer expect? (Choose two)

- A. All messages for PTP will be sent as multicast messages
- B. PTP messages that use unicast messages and those that use multicast messages must be specified
- C. Announce and Sync messages are sent as multicast messages
- D. Signaling, Delay-Request, and Delay-Response messages are sent as unicast messages
- E. Signaling, Delay-Request, and Delay-Response messages are sent as multicast messages

**Answer:** CD

**NEW QUESTION 340**

In Cisco IOS XR Software Multicast Routing Implementation, which three features are supported in IPv6 on Cisco CSR routers? (Choose three.)

- A. Multicast NSF
- B. PIM-SSM
- C. OOR handling
- D. Aggregation multicast
- E. Integrated multicast
- F. PIM-Bidirectional

**Answer:** ABF

**NEW QUESTION 343**

A network engineer is tasked with supporting traffic discrimination over MPLS traffic engineering tunnels. To allocate restricted bandwidth to a certain type of traffic with no QoS degradation, which technique must be used?

- A. integrated services
- B. MPLS TE Diff-Serv full allocation model
- C. MPLS TE Diff-Serv Russian doll model
- D. IP precedence
- E. class of service

**Answer:** C

**NEW QUESTION 345**

What is the purpose of Route Target Constraint?

- A. A new Route Target definition is specified in RFC 4684. The Syntax differs from old syntax
- B. The old syntax is a waste of processing power on the Route Reflector and PE and is waste of bandwidth.
- C. Route Targets are not attached to the VPNv4 or VPNv6 prefix
- D. Instead of using route targets, Route Distinguishers used to import and export VPNv4 and VPNv6 prefixes to and from VRFs.
- E. Route Reflectors send only wanted VPNv4 or VPNv6 prefix
- F. "Wanted" means the PE has VRF importing the specific prefixes.
- G. The Route Targets are constrained to one Autonomous System
- H. The ASBR router strip all of the Route Target information that is contained in the VPNv4 or VPNv6 prefixes.

**Answer:** C

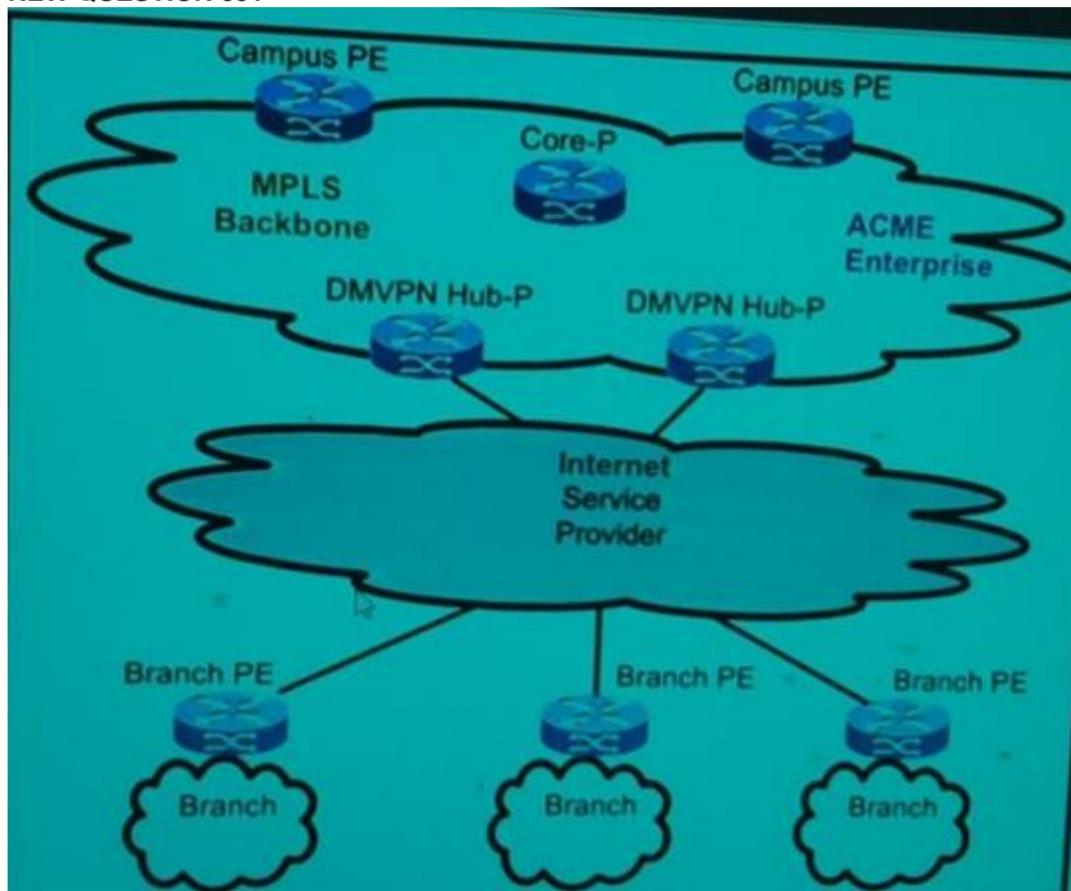
**NEW QUESTION 349**

In the Internet of things architecture, which two options are considered nodes in Low-power Lossy networks? (Choose two)

- A. Routers
- B. Servers
- C. Sensors
- D. Access points
- E. Controllers

**Answer: A**

**NEW QUESTION 351**



Refer to the exhibit ACME Enterprise is running DMVPN with spoke-to-spoke communication 2547oDMVPN has been implemented to extend MPLS to all other branches. What is the traffic flow behavior between branches after 2547oDMVPN implementation?

- A. Traffic flows through the DMPVN hub
- B. Traffic flows directly between branches only if the DMVPN configuration is changed to hub-and-spoke communication
- C. Traffic flows directly between branches through service provider cloud, bypassing the DMVPN hub
- D. Traffic flow does not occur between branches

**Answer: A**

**NEW QUESTION 353**

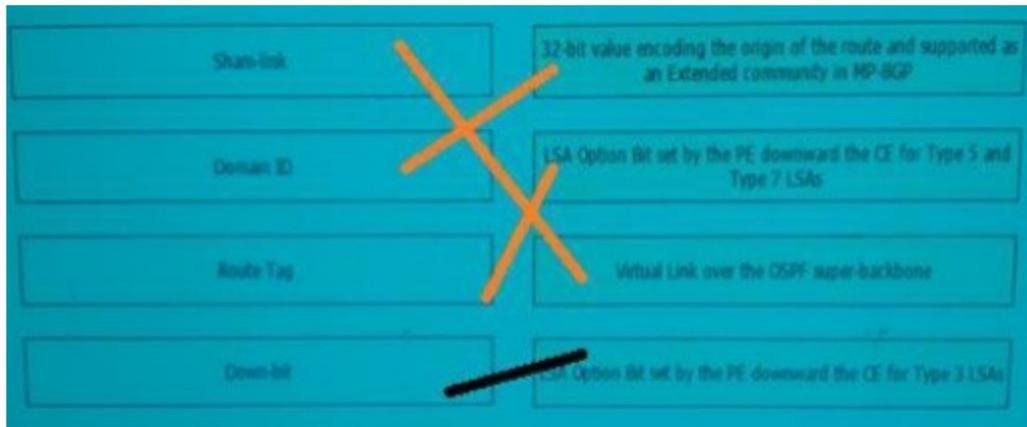
DRAG DROP

Drag and drop the OSPF PE-CE components on the left onto correct description on the right

|           |                                                                                                |
|-----------|------------------------------------------------------------------------------------------------|
| Sham-link | 32-bit value encoding the origin of the route and supported as an Extended community in MP-BGP |
| Domain ID | LSA Option Bit set by the PE downward the CE for Type 5 and Type 7 LSAs                        |
| Route Tag | Virtual Link over the OSPF super-backbone                                                      |
| Down-bit  | LSA Option Bit set by the PE downward the CE for Type 3 LSAs                                   |

**Answer:**

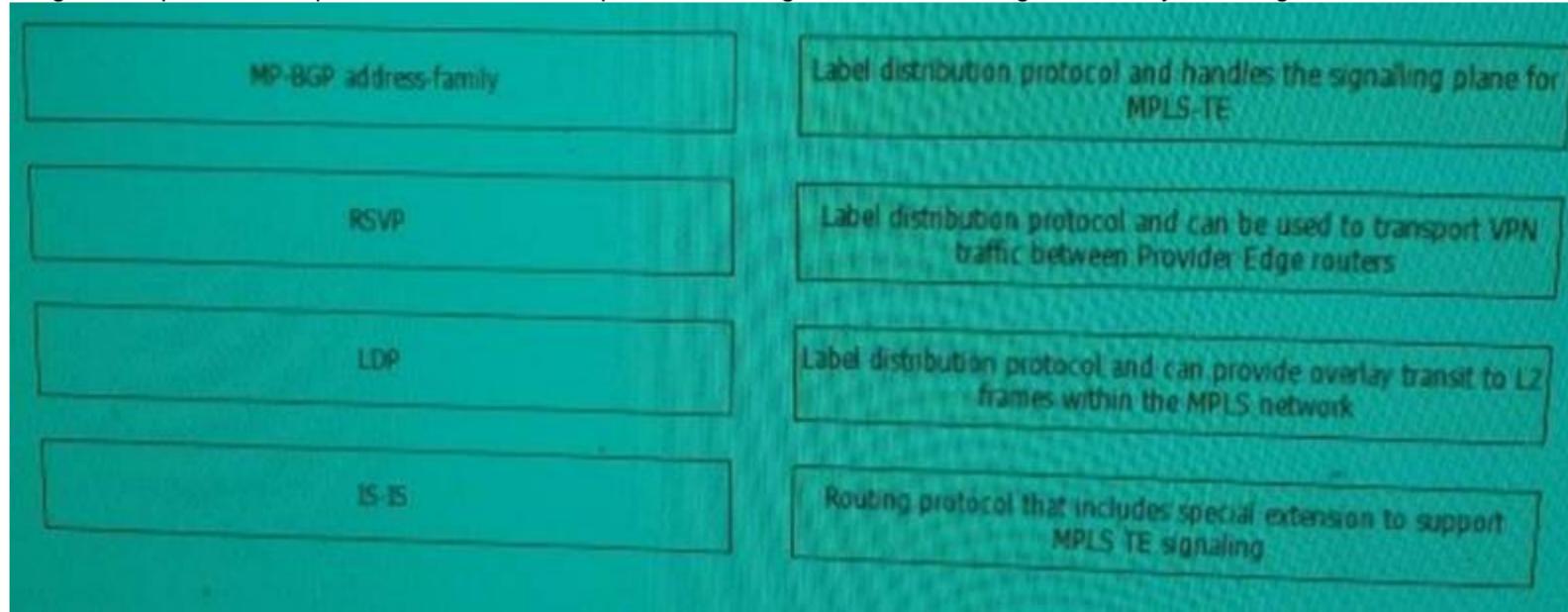
**Explanation:**



**NEW QUESTION 355**

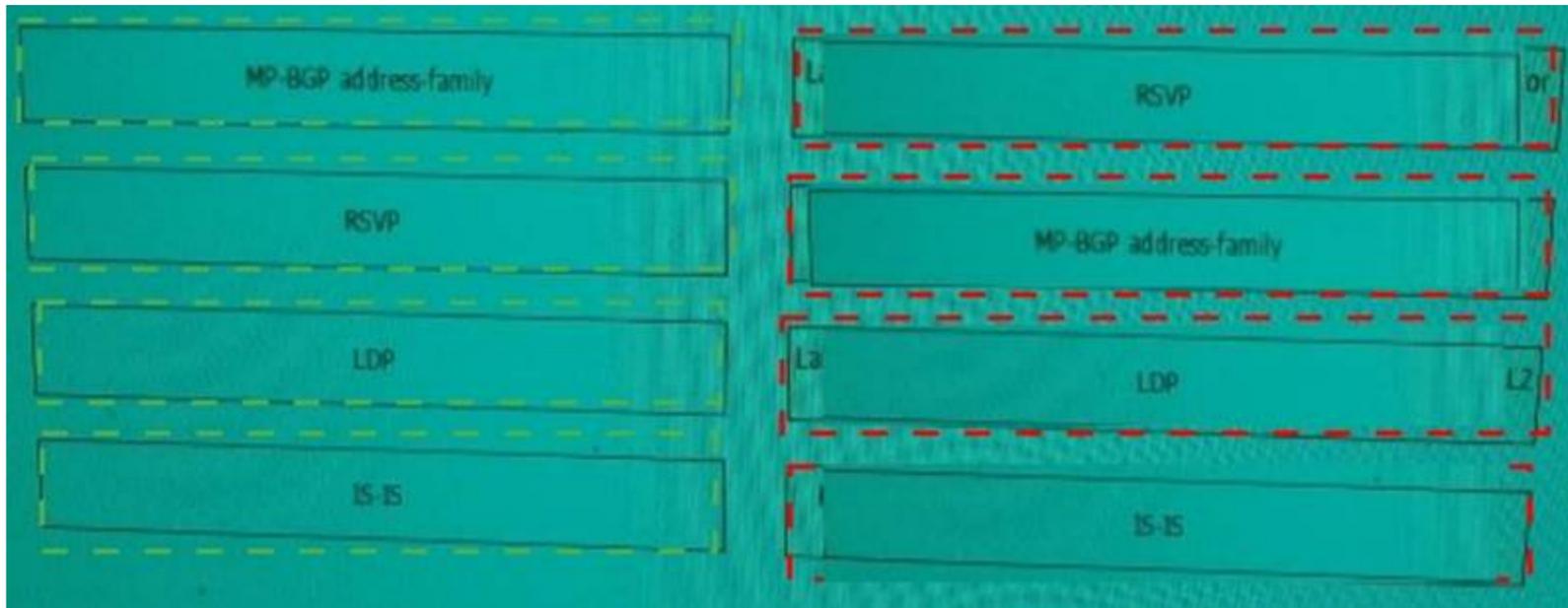
DRAG DROP

Drag and drop the service provider MPLS core component on the right onto the matching functionality on the right



Answer:

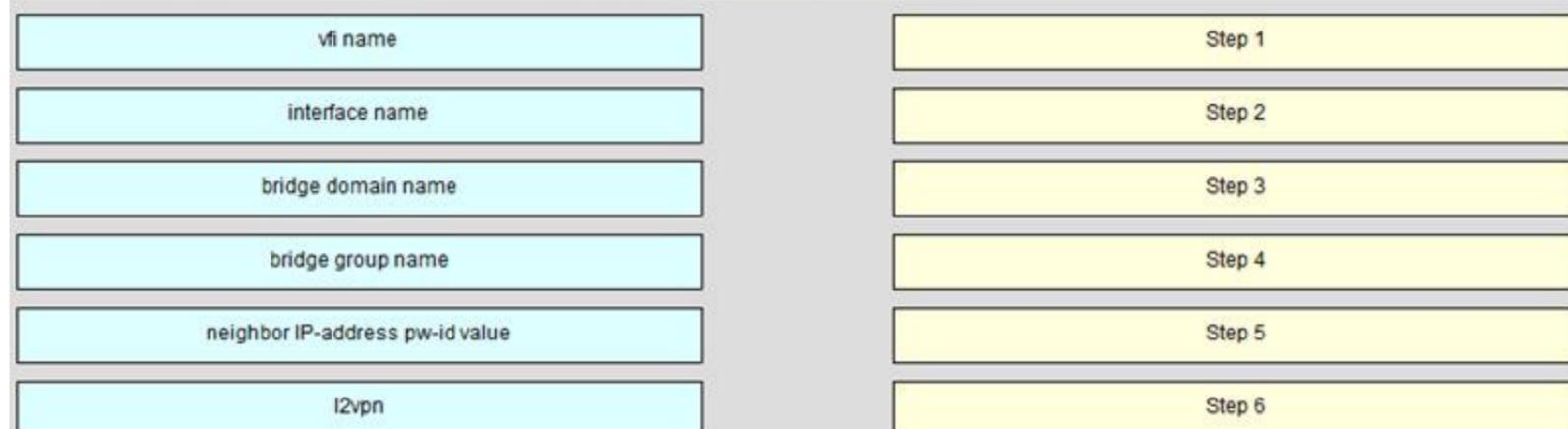
Explanation:



**NEW QUESTION 357**

DRAG DROP

Drag the command on the left to the correct step on the right to perform VPLS configuration on a Cisco IOS-XR router.



Answer:

Explanation:

Drag the command on the left to the correct step on the right to perform VPLS configuration on a Cisco IOS-XR router.

|                                 |                                 |
|---------------------------------|---------------------------------|
| vfi name                        | i2vpn                           |
| interface name                  | bridge group name               |
| bridge domain name              | bridge domain name              |
| bridge group name               | interface name                  |
| neighbor IP-address pw-id value | vfi name                        |
| i2vpn                           | neighbor IP-address pw-id value |

**NEW QUESTION 359**

In a multihop BFD scenario, which two options create a multihop template and associate it with maps of destinations and associated timers? (Choose two)

- A. Fallover BFD
- B. BFD echo
- C. BFD map
- D. BFD template
- E. BFD version 2

Answer: CD

**NEW QUESTION 363**

```

CE#
ip prefix-list ROUTES_TO_SP seq 5 deny 10.1.1.0/24 le 32
ip prefix-list ROUTES_TO_SP seq 10 permit 10.1.1.128/25 le 32
!
ip route 10.1.1.64 255.255.255.240 null 0
!
router bgp 65000
 network 10.1.1.64 mask 255.255.255.240
 neighbor 10.10.12.1 remote-as 65001
 neighbor 10.10.12.1 prefix-list ROUTES_TO_SP out

```

Refer to the exhibit. The prefix 10.1.1.64/28 should be advertised to the PE router, yet the prefix is not being received by the PE. Which configuration should be applied on CE in order to fix this issue?

- A. ip prefix-list ROUTES\_TO\_SP seq 1 permit 10.1.1.64/28
- B. router bgp 65000no network 10.1.1.64 mask 255.255.255.240network 10.1.1.128 mask 255.255.255.128
- C. ip prefix-list ROUTES\_TO\_SP permit 10.1.1.64/28
- D. router bgp 65000no network 10.1.1.64 mask 255.255.255.240network 10.1.1.0 mask 255.255.255.0

Answer: A

**NEW QUESTION 365**

Which mode does PPP interface use for peer authentication?

- A. in-band
- B. semi-in-band
- C. out-band
- D. semi-out-band
- E. in-band and out-band

Answer: C

**NEW QUESTION 367**

Which IGP feature designates a subnet of ip prefixes for fast processing and installation in the global routing table to achieve fast convergence

- A. Partial route computation
- B. Incremental SPF calculations
- C. Turning LSA timers
- D. SPF prefix prioritization

**Answer:** D

**NEW QUESTION 372**

which option describes how NFV, OpenStack, and KVM relate to each other ?

- A. OpenStack and NFV enable KVM
- B. OpenStack and KVM can be used to provide NFV
- C. NFV and KVM are based on OpenStack
- D. OpenStack and KVM are not related to NFV

**Answer:** A

**NEW QUESTION 376**

What is the port number of an IPSec Encapsulating Security Payload packet?

- A. IP protocol 50
- B. IP protocol 51
- C. TCP port 50
- D. TCP port 51
- E. UDP port 50
- F. UDP port 51

**Answer:** A

**NEW QUESTION 381**

```
router bgp 15.15
 neighbor 10.1.15.1 remote-as 2
 neighbor 10.1.15.1 filter-list 1 in
!
ip as-path access-list 1 deny {.*5\.5.*}
ip as-path access-list 1 permit .*
```

Refer to the exhibit. Which statement is true about what this AS filter accomplishes?

- A. It filters incoming BGP update with any AS number starting with the digit 5 and ending with the digit 5, and this only in an AS\_PATH.
- B. It filters incoming BGP update with any AS number matching "5.5", but not 515, 525.535 etc this only in an AS\_SET
- C. It filters incoming BGP update with any AS number starting with the digit 5 and ending with the digit 5 and this only in an AS\_SET
- D. It allows any number with the statement ".\*" and this only in an AS\_PATH.

**Answer:** B

**NEW QUESTION 385**

Which of the following comparison of Control Plane Policing (CoPP) with Receive ACL (Racl) is correct?

- A. CoPP protects against IP spoofing; Racl protects against DoS attacks.
- B. CoPP can not use named access lists; Racl can use named access lists
- C. CoPP applies to a dedicated control plane interface; Racl applies to all interfaces.
- D. CoPP needs a AAA server, Racl does not need a AAA server
- E. CoPP supports rate limits; Racl does not support rate limits

**Answer:** CE

**NEW QUESTION 389**

In a Service provider network , a NOC engineer identifies an interface that flaps continuously. This interface connects to an EBGP peer. Which feature can reduce this instability on the service provider network?

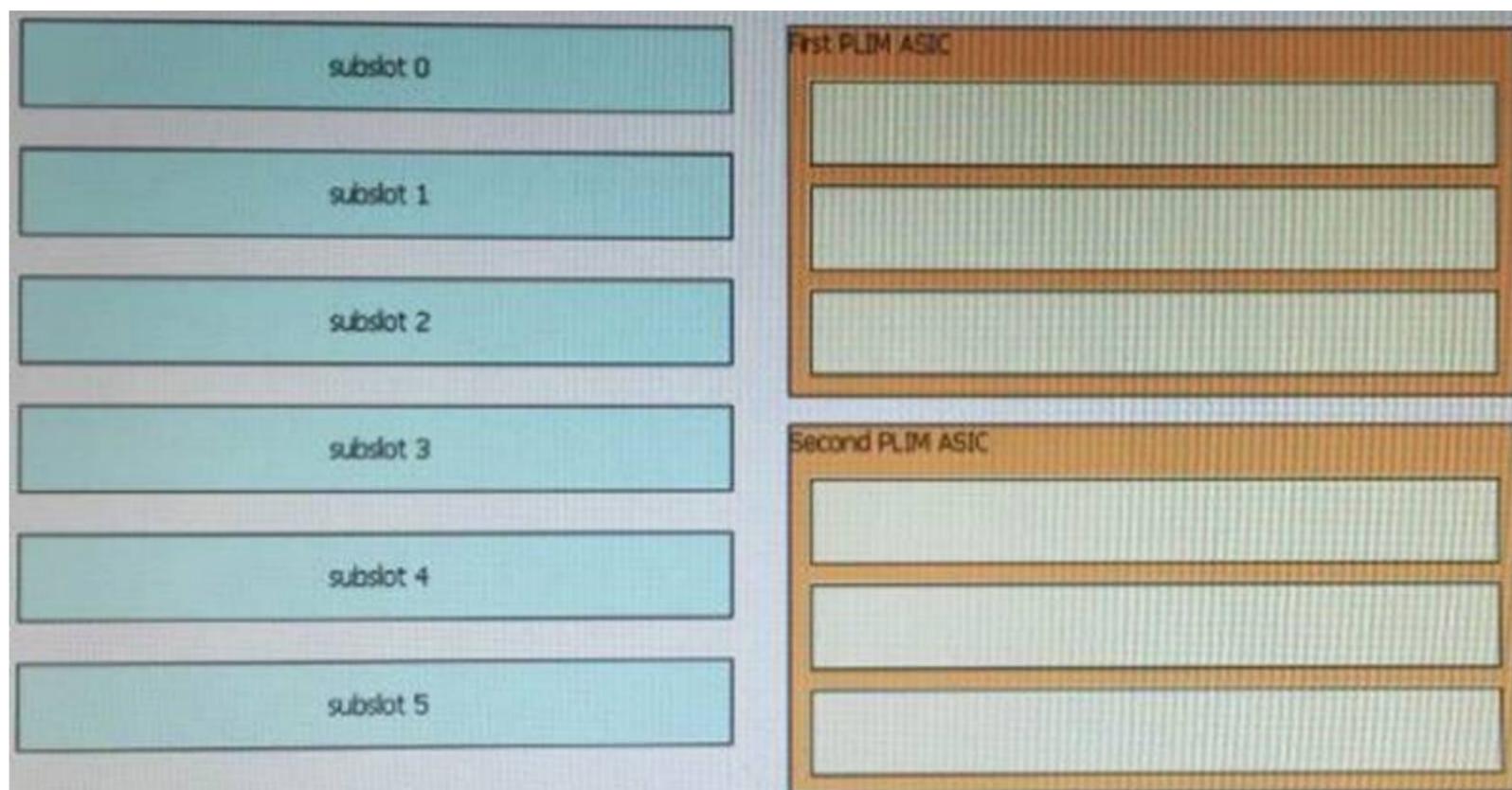
- A. BGP PIC
- B. IP event Dampening
- C. IGP Prefix Prioritization
- D. Non-stop Forwarding

**Answer:** B

**NEW QUESTION 394**

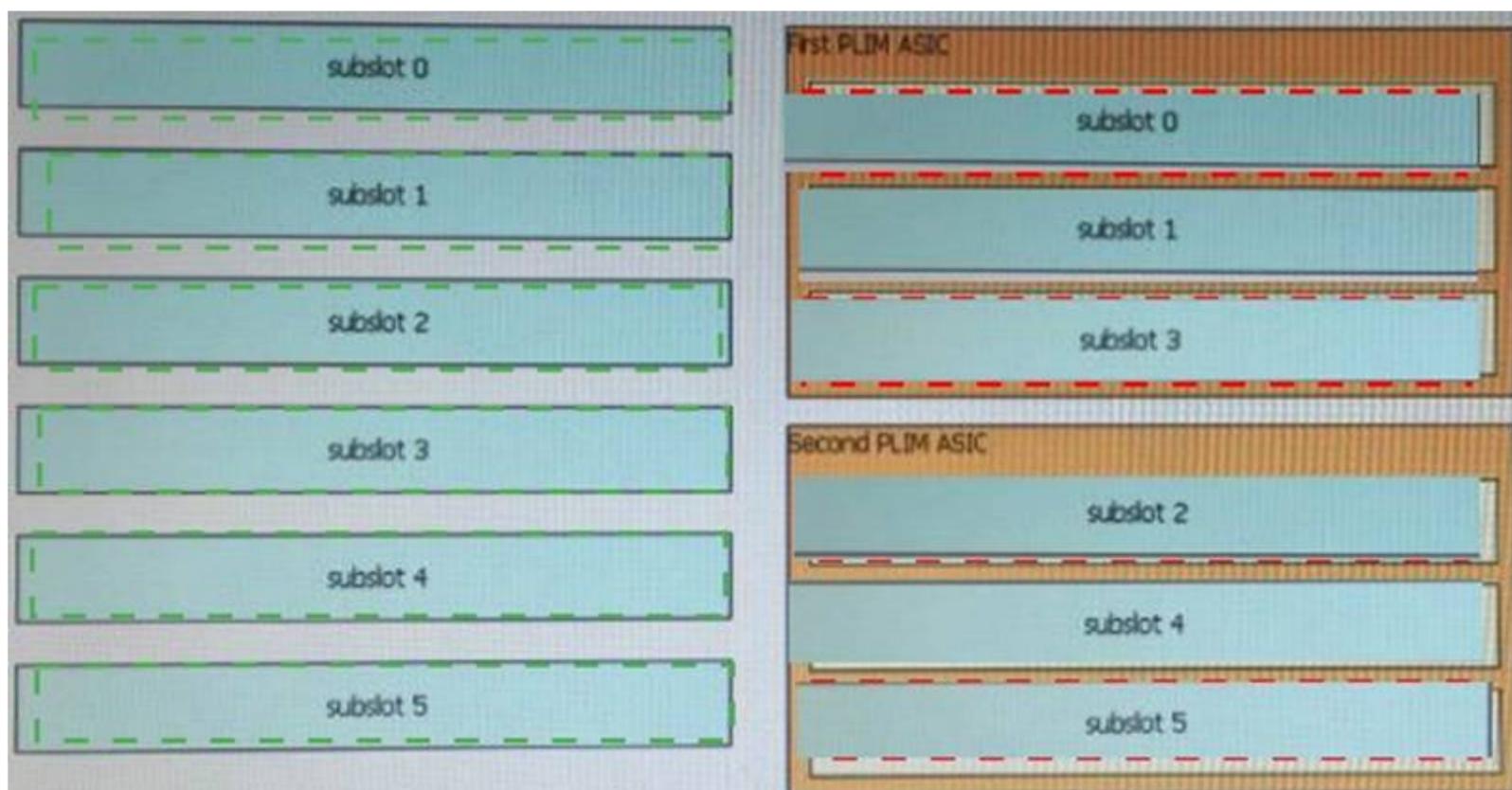
DRAG DROP

Drag and drop the subslot of the SIP-800 card that is used on Cisco CRS routers on the left to the correct PUM ASIC process on the right.



**Answer:**

**Explanation:**



**NEW QUESTION 397**

What best describes the usage of Route-Target rewrite?

- A. Route-Target Rewrite is mainly used in Inter-AS MPLS-VPN deployments and is configured at the Route-Reflector in originating AS ASBR to avoid misconfiguration in Route-Target assignment for VPN configurations.
- B. Route-Target Rewrite is mainly used in Inter-AS MPLS-VPN deployments and is configured at the ASBR to avoid misconfiguration in Route-Target assignment for VPN configurations.
- C. Route-Target Rewrite is mainly used in Inter-AS MPLS-VPN deployments and is configured at the PE router in originating AS ASBR to avoid misconfiguration in Route-Target assignment for VPN configurations.
- D. None of the above.

**Answer:** B

**NEW QUESTION 400**

A service provider is managing a CE that is used to segment multiple customers into dedicate VRFs. OSPF is used as the PE-CE routing protocol the managed CE does not have the customers routes in its RIB .To allow the CE to install these routes which command should be implemented?

- A. No prefix-suppression
- B. Capability vrf-lite
- C. local-rib-criteria
- D. domain-id<value>

**Answer:** B

**NEW QUESTION 401**

In MVPN GRE, what is the limitation for unicast GRE tunnels?

- A. Support more than 500 GRE tunnels per system for multicast.
- B. Transport header support is limited to IPv4.
- C. Transport header support is limited to IPv6.
- D. IPv4 multicast for GRE unicast tunnels is not supported.

**Answer:** B

**NEW QUESTION 402**

Unicast Reverse Path Forwarding (Urpf ) can work in the following modes:

- A. Safe mode
- B. Loose mode
- C. Strict mode
- D. Express mode
- E. Tunnel mode

**Answer:** BC

**NEW QUESTION 404**

Select 3 AVPs (Attribute-Value Pair) which MUST be present in the ICRQ:

- A. Called Number
- B. Call Serial Number
- C. Message Type
- D. Calling Number
- E. Assigned Session ID

**Answer:** BCE

**NEW QUESTION 406**

A client has an MPLS inter-AS implementation that is required to have QoS deployed between ASBRs based on IP packet. At the same time, the client requires minimization of the routing configuration between ASBRs for better scalability. Which MPLS inter-AS option can achieve this goal?

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

**Answer:** D

**NEW QUESTION 410**

A service provider that supports multicast has a requirement to increase network resilience without relying on RPF convergence in the event of a device failure. To achieve this goal, what must the service provider implement?

- A. MSDP
- B. Anycast RPs
- C. MDT
- D. MoFRR

**Answer:** D

**NEW QUESTION 412**

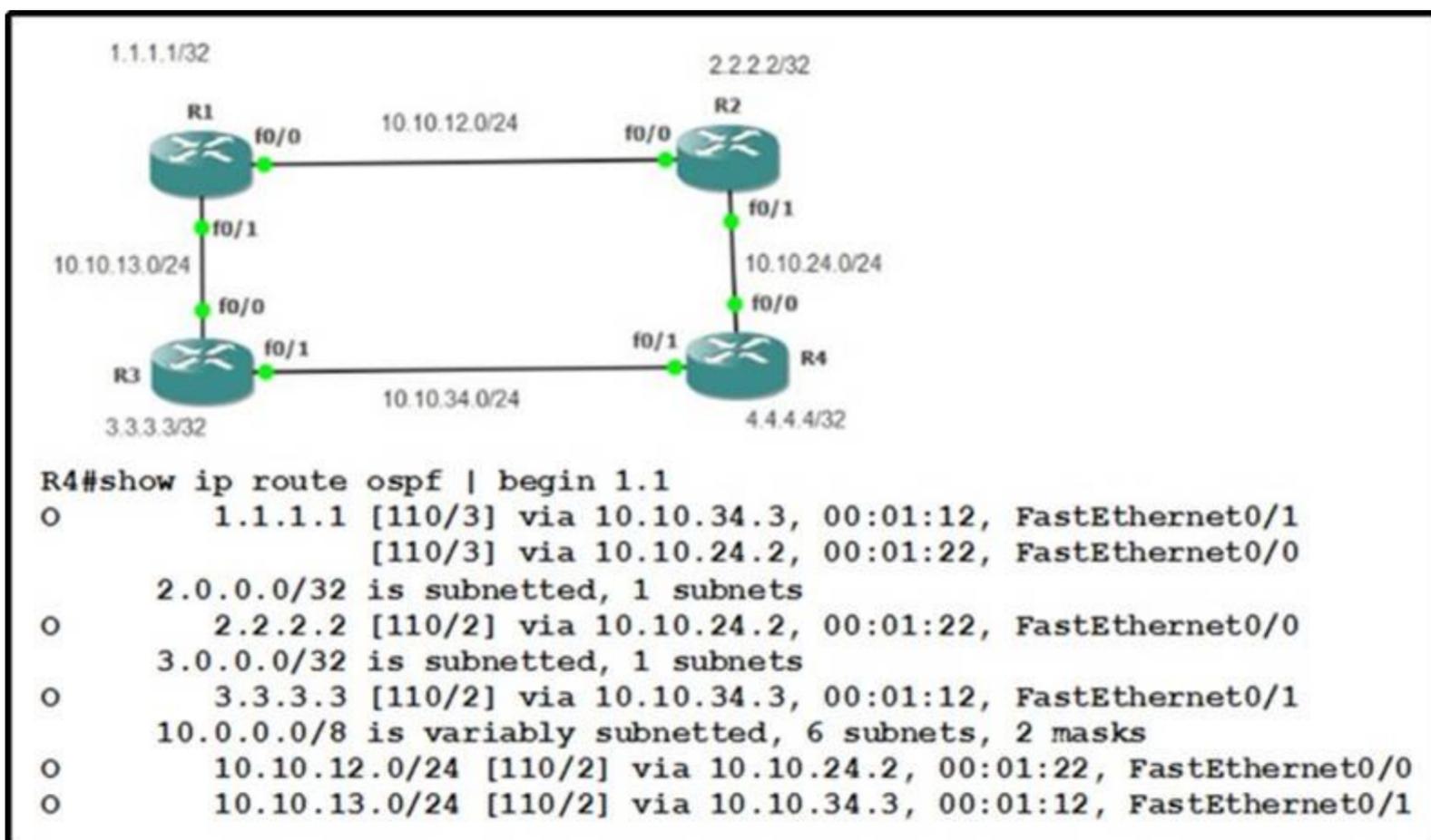
Which statement about IPv6 security is true?

- A. Reconnaissance attacks are easier to do in IPv6 compared to IPv4.
- B. IPv6 amplification attacks can happen using IPv6 broadcast address.
- C. RA-guard feature is used to block rogue RAs.
- D. ICMP policies on firewalls do not need to be changed for IPv6 because ICMP is Layer 3 agnostic.

**Answer:** C

**NEW QUESTION 413**

Refer to the exhibit.



Which command group does a network administrator use to filter out R3 (3.3.3.3 subnet) from the R4 routing table?

- A. R4(config)# router ospf 1 distribute-list prefix-list filter in
- B. R2(config)# router ospf 1 distribute-list prefix-list filter out Fa0/1
- C. R4(config)# router ospf1 distribute-list prefix-list filter in Fa 0/0
- D. R3(config)# router ospf 1 distribute-list prefix-list filter out Fa 0/0

**Answer: A**

**NEW QUESTION 414**

R1 and R2 share the same Fast Ethernet connection. OSPFv3 is configured on each interface, but the adjacency is not being established. Review the configuration provided. Which option explains why the OSPFv3 adjacency is not coming up?

```

R1
Interface fastethernet 0/0
ipv6 address 2001:db8:1234:1::1/64 ipv6 ospf 1 area 0 instance 2
ipv6 enable
ipv6 router ospf 1 router-id 1.1.1.1
R2
Interface fastethernet 0/0
ipv6 address 2001:db8:6789:9::1/64 ipv6 ospf 2 area 0 instance 3
ipv6 router ospf 2 router-id 2.2.2.2

```

- A. The two routers are not on the same subnet.
- B. IPv6 is not enabled on R2 Fast Ethernet 0/0.
- C. There is no reachability to 1.1.1.1 or 2.2.2.2.
- D. The OSPFv3 processes do not match.
- E. The instance IDs do not match.

**Answer: E**

**NEW QUESTION 415**

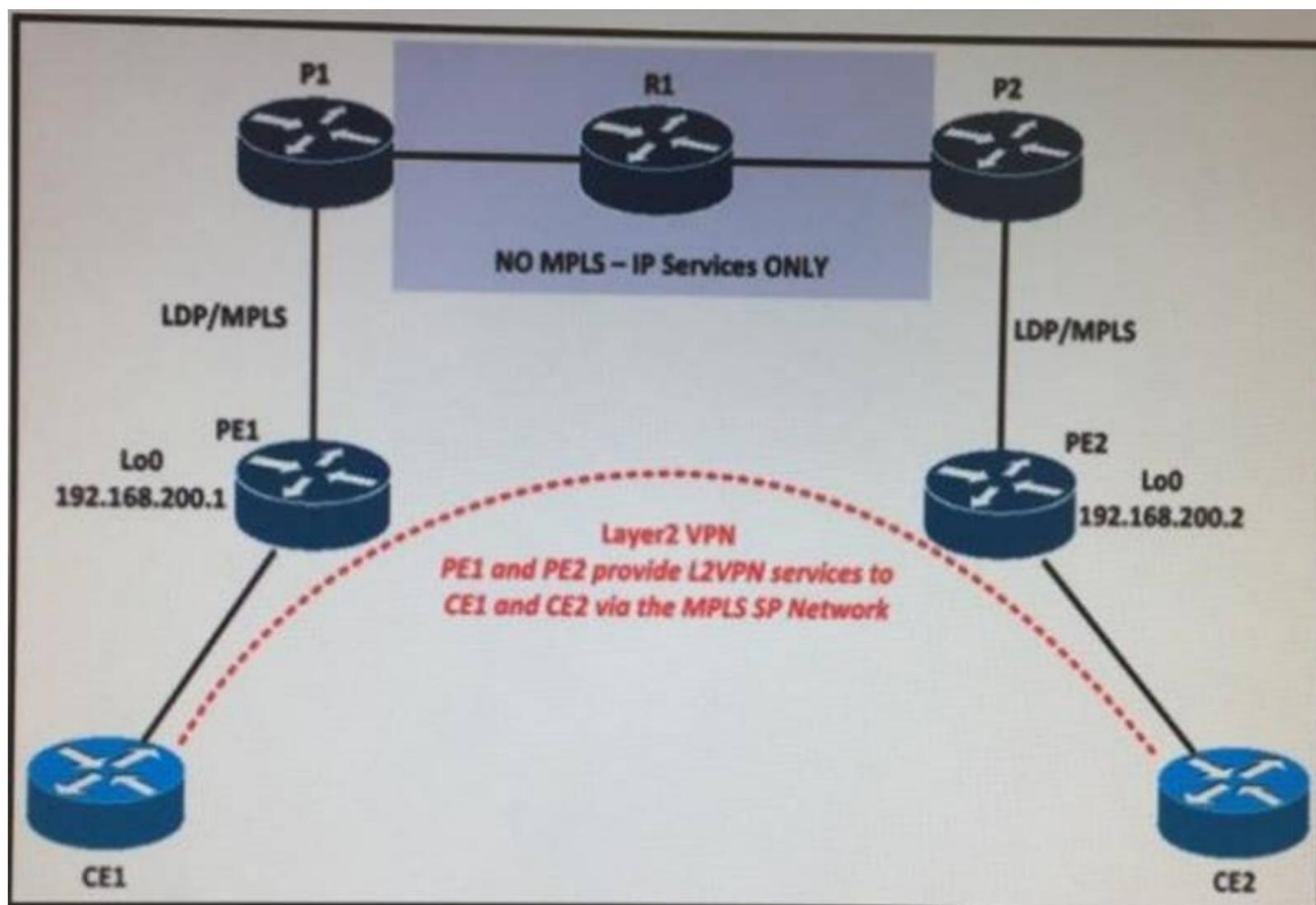
MPLS label headers for packet media consist of:

- A. Version
- B. Label
- C. COS/EXP
- D. TTL
- E. S flag

**Answer: BCDE**

**NEW QUESTION 417**

DRAG DROP  
Refer to the exhibit.



PE1 and PE2 has a Layer 2 VPN over a GRE tunnel. This GRE tunnel built between P1 and P2 has LDP enabled. Consider a packet capture of the packets from CE1 and CE2 at P1 and R1 link. Drag the headers on the left and drop them on the right in the order of the encapsulation, starting from the inner header (at the top) to the outer header (at the bottom).

|                          |               |
|--------------------------|---------------|
| MPLS VPN Label           | First (Inner) |
| CE IPv4 Header           | Second        |
| MPLS Transport Label     | Third         |
| Ethernet Transport Frame | Fourth        |
| GRE                      | Fifth (Outer) |

**Answer:**

**Explanation:**



**NEW QUESTION 419**

How many messages does Internet Key Exchange use to negotiate SA characteristics when it runs in aggressive mode?

- A. 3
- B. 4
- C. 5
- D. 2
- E. 6

**Answer:** A

**NEW QUESTION 424**

DRAG DROP

Drag and drop the Timing Protocol characteristics on the left onto the correct Timing over Packet Solution on the right

|                                                                                                                  |                                                     |
|------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------|
| It provides accurate frequency synchronization, but does not provide time/phase synchronization.                 | Network Time Protocol                               |
| It was written to provide a robust IP/MPLS-based time and frequency distribution architecture.                   | Precision Time Protocol                             |
| The most recent version introduced accuracy to the tens of microseconds and includes an extensibility mechanism. | Synchronous Ethernet                                |
| It defined a protocol for precise, real-time, network-wide synchronization accuracy in the submillisecond range. | Timing over IP connection and transfer of clock BOF |

**Answer:**

**Explanation:** Network Time Protocol : The most recent version introduced accuracy to the terms of microseconds and includes an extensibility mechanism  
Precision Time Protocol : It defined a protocol for precise, real-time, network-wide synchronizat on accuracy in the sub millisecond range  
Synchronous Ethernet : It provides accurate frequency synchronization, but does not provide time/phase synchronization  
Time over IP connection and transfer of clock BOF: It was written to provide a roubust IP/MPLS-based time and frequency distribution architecture

**NEW QUESTION 427**

An engineer is configuring a Cisco CRS-1 Multishelf System. Which option describes the minimum LCC and FCC requirements for proper functionality?

- A. two LCCs and one FCC
- B. one LCC and one FCC
- C. two LCCs and two FCCs
- D. one LCC and two FCCs

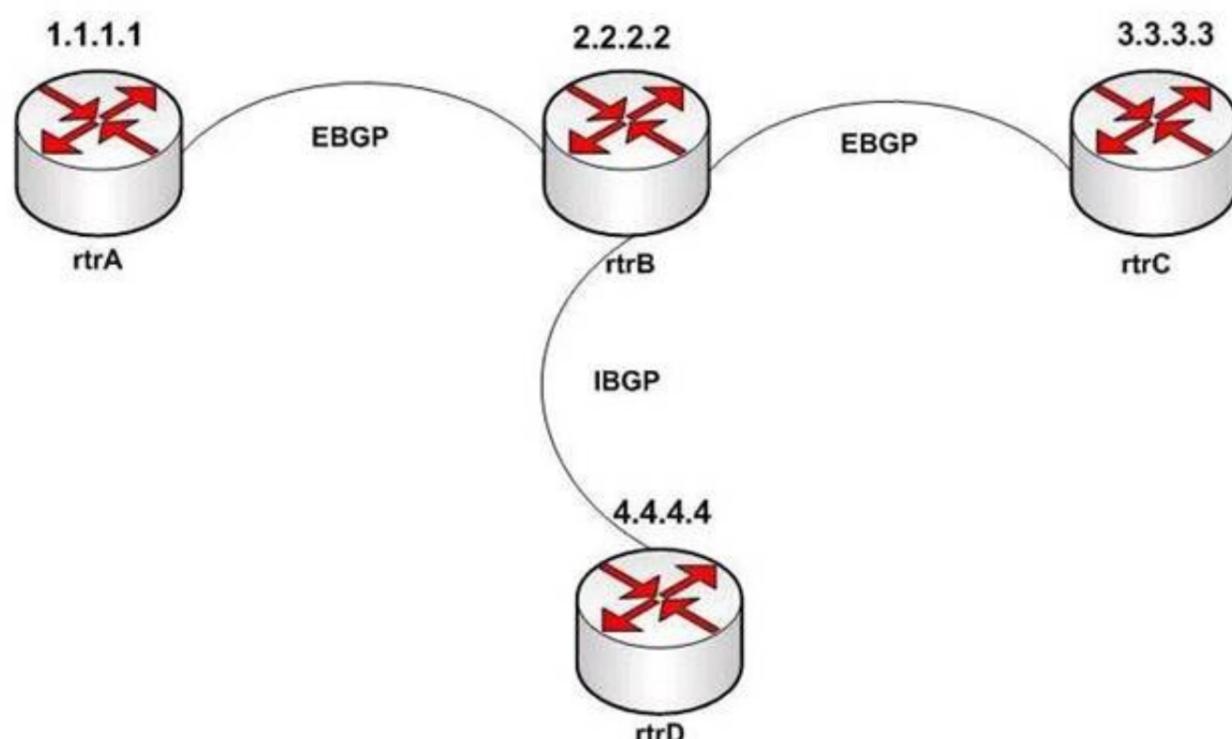
**Answer:** B

**NEW QUESTION 432**

Having the above BGP peerings, select the two configurations for rtrB that will fulfill the following criteria:

-Will advertise all routes from rtrA to rtrD but not to rtrC

-Will advertise the routes from rtrD to rtrC



- A. `router bgp 2neighbor 1.1.1.1 remote-as 1 neighbor 1.1.1.1 route-map rtrA in!route-map rtrA permit 10 set community no-advertise!`
- B. `router bgp 2neighbor 1.1.1.1 remote-as 1neighbor 1.1.1.1 route-map rtrA in!route-map rtrA permit 10 set community no-export!`
- C. `router bgp 2neighbor 1.1.1.1 remote-as 1 neighbor 1.1.1.1 route-map rtrA in neighbor 3.3.3.3 remote-as 3 neighbor 3.3.3.3 route-map rtrC out!route-map rtrA permit 10 set community 5!route-map rtrC permit 10 match community 5!`
- D. `router bgp 2neighbor 1.1.1.1 remote-as 1 neighbor 1.1.1.1 route-map rtrA in neighbor 3.3.3.3 remote-as 3 neighbor 3.3.3.3 route-map rtrC out!route-map rtrA permit 10 set community 5!route-map rtrC permit 10 match community 5!route-map rtrC permit 20!`

**Answer: BD**

**NEW QUESTION 435**

Which three options are restrictions for MPLS VPN BGP Local Convergence? (Choose three.)

- A. The MPLS VPN BGP Local Convergence feature affects only traffic that is exiting the VP
- B. Therefore, it cannot fully protect traffic end-to-end by itself.
- C. This link protection can be initiated during a HA SS
- D. But links that were configured with this protection before the switchover begins remain protected after the switchover.
- E. The MPLS VPN BGP Local Convergence feature for IPv4/IPv6 supports the eBGP, RIP, EIGRP, OSPF, and dynamic routing protocols.
- F. Any next-hop core tunneling technology that is supported by BGP is also supported for protection, including MPLS, L2TPv3, and IP/GR
- G. CSC protocol between the PE and CE is also supported
- H. Interautonomous system option A (back-to-back VRF) is supported because it is essentially the same as performing the PE-CE link protection in both autonomous system
- I. However, interautonomous system options B and C protection are not supported.
- J. If you perform an in-service software downgrade from an image that does include this link protection to an image that does not support this feature, active protection is halted when BGP routes are refreshed.

**Answer: ADE**

**NEW QUESTION 436**

Which description of the main purpose of the LDP targeted Session is true?

- A. To improve the label convergence time for directly connected LSRs by maintaining the session up when the link between LSRs by maintaining the session up when the link between LSRs down
- B. To prevent traffic from being black-holed by building a MPLS forwarding table depending on the IP routing protocol in use
- C. To establish an adjacency before exchanging network information to avoid keepalive messages being dropped during heavy network traffic event
- D. To provide the means for LSR to request and release label prefix binding information to peers routers

**Answer: A**

**NEW QUESTION 441**

In PIM-SM operations, to which device does the first router that connects with the multicast source send the register message?

- A. RP
- B. multicast source
- C. IGMP router
- D. multicast receiver
- E. PIM designated router

**Answer: A**

**NEW QUESTION 444**

Which two options describe how 6RD compares to automatic 6to4 tunneling? (Choose two.)

- A. 6RD provides a controlled exit point from the IPv6 Internet.
- B. 6RD provides a controlled entry point to the IPv6 Internet.
- C. 6RD is widely available in current OS implementations.
- D. Automatic 6to4 tunneling is widely available in current OS implementations.
- E. Automatic 6to4 tunneling and 6RD use a well-known IPv6 prefix.

**Answer:** BD

**NEW QUESTION 445**

In an OSPF domain, four routers are running the OSPF protocol over a LAN switch in a broadcast domain. What is the expected output of executing the show ip OSPF neighbor command on the router that is neither a DR nor a BDR?

- A. one FULL state, two 2WAY states
- B. two FULL states, one 2WAY state
- C. three FULL states
- D. three 2WAY states

**Answer:** B

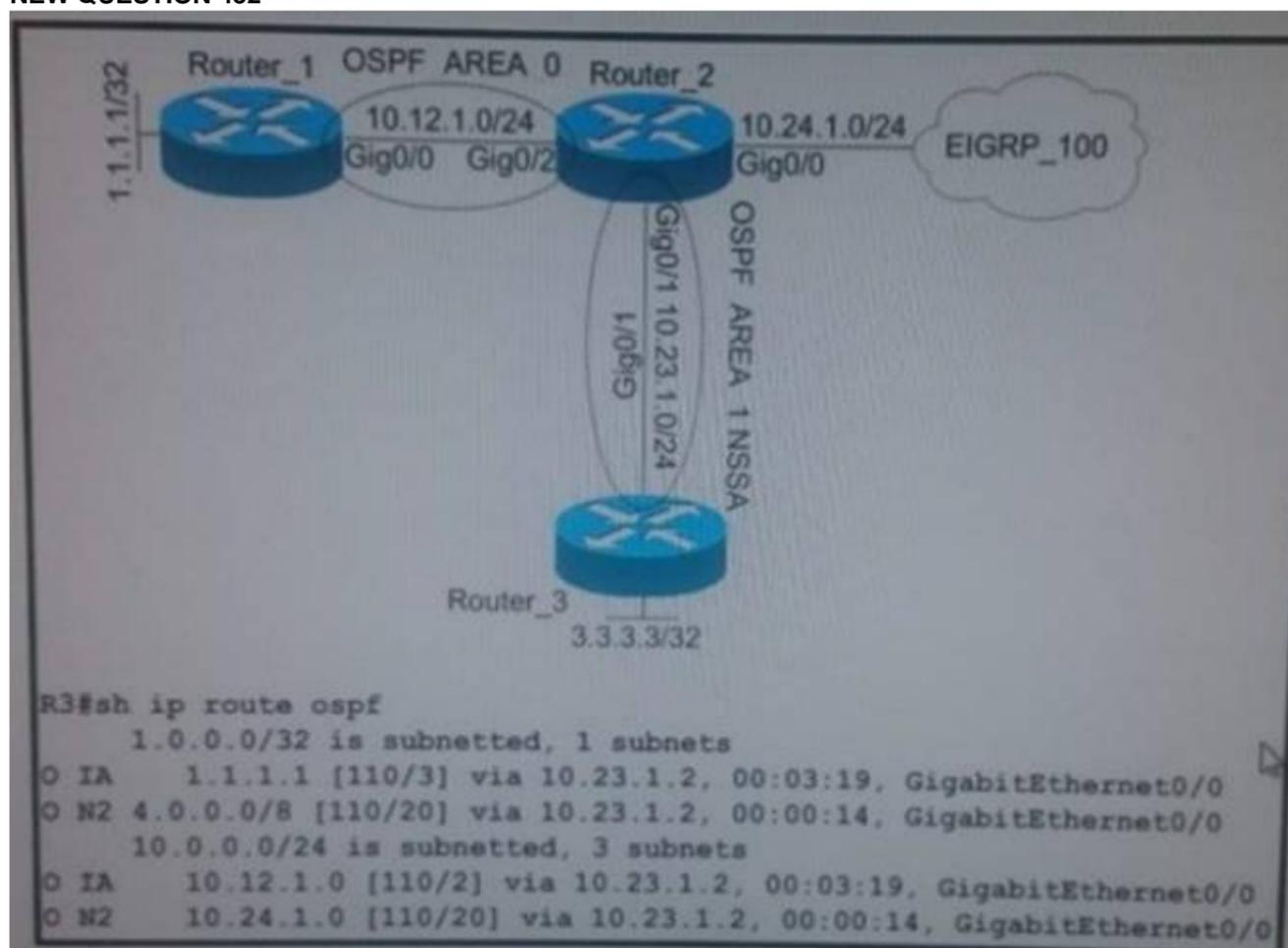
**NEW QUESTION 449**

What is true regarding Cisco Network Registrar in Cable networks?

- A. It provides comprehensive Domain Name system
- B. It provides DHCP administrative functionality
- C. It provides TFTP server functionality.
- D. All of the above are true.

**Answer:** D

**NEW QUESTION 452**



Refer to the exhibit. displays the Router\_3 FIB information without any OSPF LSDB optimization. An engineer wants to optimize the OSPF LSDB in accordance with RFC 1587 Considering the following restraints:

- \*Router\_3 maintains full connectivity
- \*Router\_2 requires the least configuration

In orderto achieve the OSPF LSDB optimization on Router\_3. which Cisco IOS command should the engineer use on Router\_2?

- A. area 1 nssa default-information-originate
- B. area 1nssa no-summary area 1 nssa no-redistribution
- C. area 1 nssa no-redistributionarea 1 nssa default-information-originate
- D. area 1 nssa no-summary
- E. area 1 nssa no-redistribution
- F. area 1 nssa no-summaryarea 1 nssa default-information-originate

**Answer:** F

**NEW QUESTION 455**

What happens when a broadcast storm is detected?

- A. The traffic threshold reaches 100%.
- B. CPU utilization reaches 100%.
- C. The value of the TotalSuppDiscards counter increments.
- D. The port goes down.
- E. The switch goes down.

**Answer: C**

**NEW QUESTION 456**

Which carrier-grade IPv6 technology helps with IPv4 address depletion?

- A. dual stack and NAT444
- B. NAT444 and 6RD
- C. NAT444 and DS-Lite
- D. 6RD and DS-Lite

**Answer: C**

**NEW QUESTION 459**

IS-IS is deployed in a service provider network with more than 500 routers using the default IS-IS metric-style. The service provider must implement MPLS TE support with lesser service impact during the migration period. Which Cisco IOS command meets this requirements?

- A. Metric-style narrow wide
- B. Metric-style wide
- C. Metric-style wide transition
- D. Metric-style narrow transition

**Answer: C**

**NEW QUESTION 461**

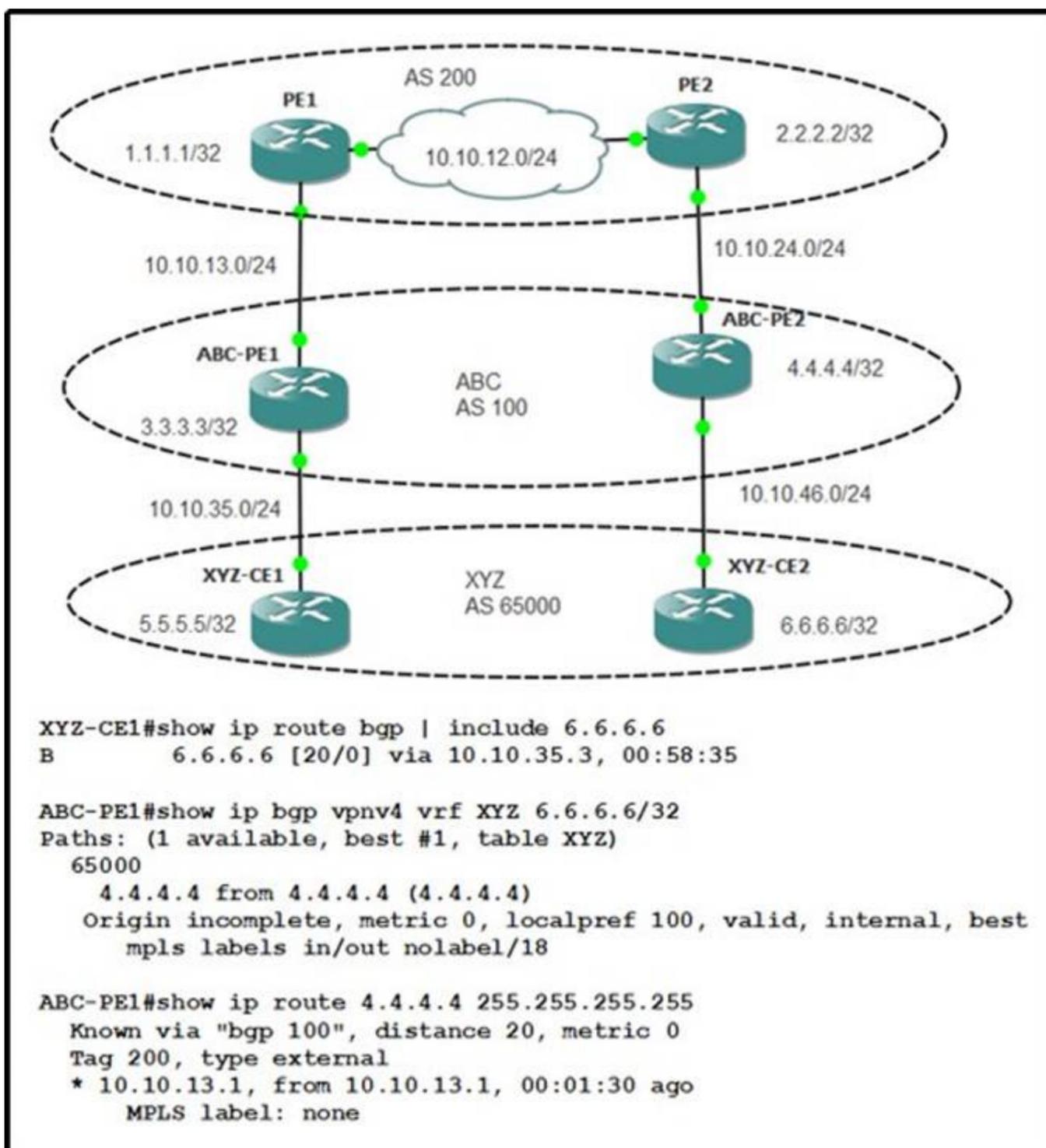
An engineer deploys a new Cisco IOS XR router and connects a Gigabit Ethernet port to an existing Cisco Catalyst 3650 Series Switch. The engineer uses known good optics and fiber, but the link has not come up and it is stuck in the down/down state. What is the root cause of this issue?

- A. Cisco IOS XR devices must use copper connections to Catalyst 3650 Series Switches
- B. UDLD must be enabled on the Catalyst 3650 Series switch
- C. CDP is not enabled on the Cisco IOS XR device
- D. Auto negotiation must be disabled on the Catalyst 3650 Series Switch

**Answer: D**

**NEW QUESTION 465**

Refer to the exhibit.



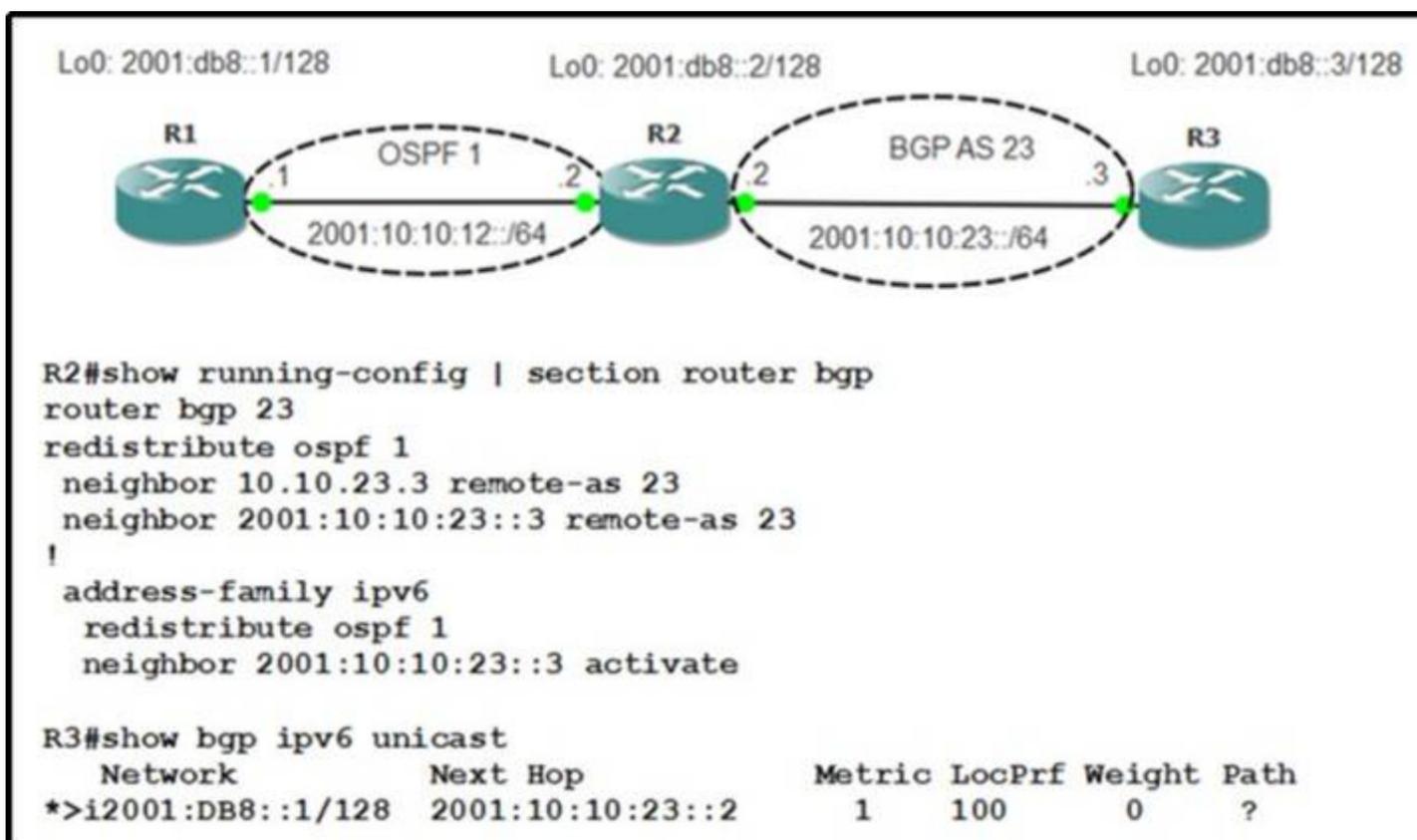
AS 100 for ABC sites is used to carry XYZ customer traffic over ISP network. All routing between CEs to PEs are BGP-based. XYZ site 1 reports that it cannot reach XYZ site 2, although the destination network is installed in its routing table. Which statement describes the cause of the problem?

- A. LDP is not running between XYZ-CE1 and ABC-PE1.
- B. LDP is not running between ABC-PE1 and PE1.
- C. ABC-PE1 does not have an inbound label for subnet 6.6.6.6/32.
- D. send-label command is missing from PE1 to ABC-PE1.

**Answer: D**

**NEW QUESTION 469**

Refer to the exhibit.



A company is deploying IPv6 using a dual-stack approach. OSPFv2 is used for IPv4 routing and is redistributed into the BGP IPv4 address family. The network engineer also needs to enable OSPFv3 for IPv6 routing using the same design that is used for OSPFv2. All prefixes in the OSPFv3 database must be redistributed into the BGP IPv6 address family at router R2, but R3 does not receive the loopback 0 IPv6 address of R2 via BGP. Which action will fix this problem?

- A. redistribution of BGP routes into OSPFv3
- B. redistribution of OSPFv3 routes into BGP with include-connected
- C. mutual redistribution of OSPFv3 and BGP routes
- D. redistribution of connected OSPFv3 routes

Answer: B

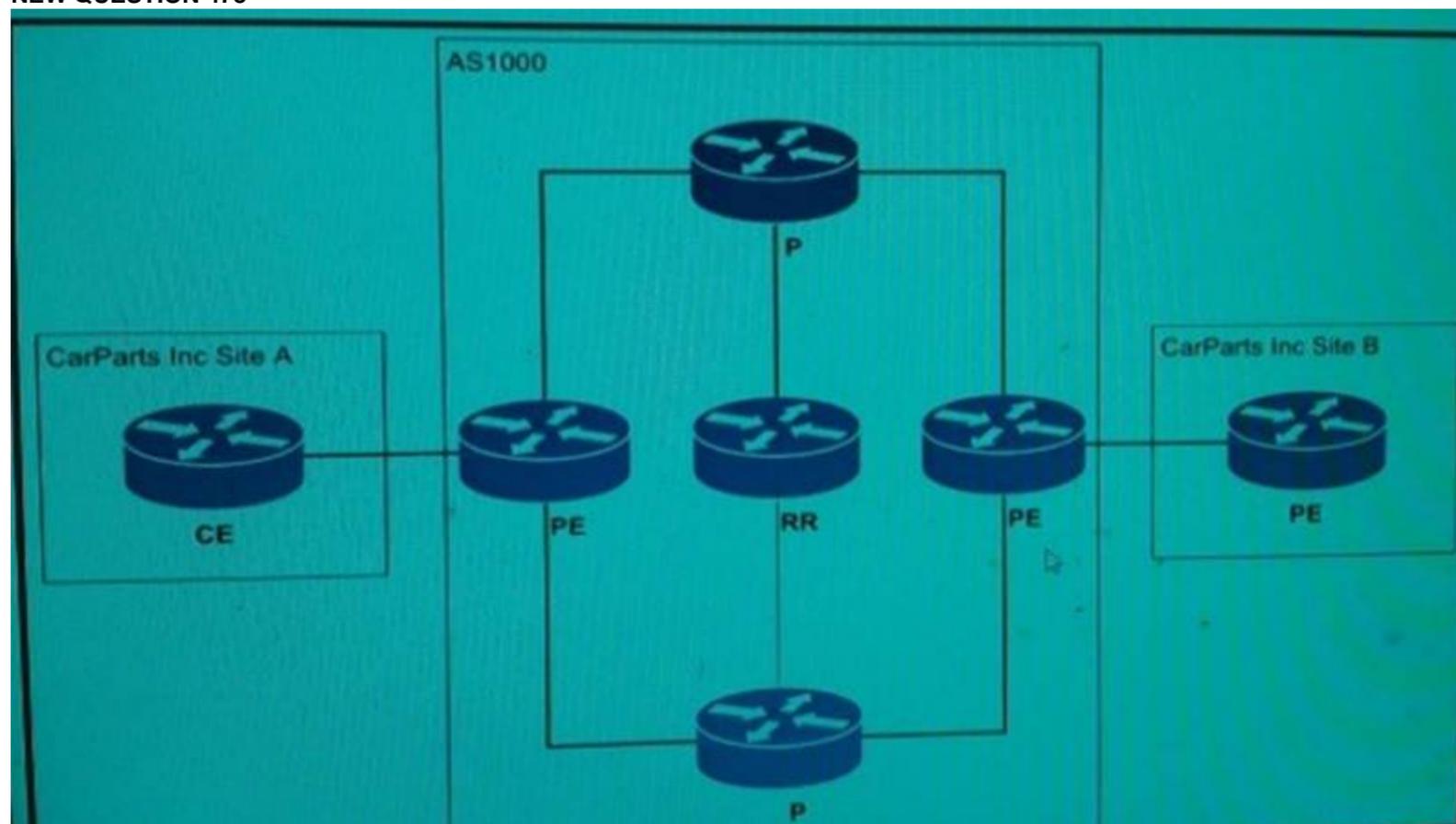
**NEW QUESTION 474**

Which statement about 6PE is true?

- A. An additional address family was added to MP-BGP for the support of 6PE.
- B. MP-iBGP is needed to support 6PE.
- C. LDP is needed to support 6PE.
- D. P routers need to be dual stack.
- E. MP-eBGP is needed to support 6PE.

Answer: B

**NEW QUESTION 478**



Refer to the exhibit. A network engineer has a requirement to enable MPLS TE tunnels on the network to be L3VPN customers. Which MPLS TE feature allow the network engineer to configure MPLS TE LSPs by using a few CLI commands?

- A. AutoTunnel Mesh Groups on all P and PE routers

- B. AutoTunnel Primary and Backup on all PE routers
- C. AutoTunnel Primary and Backup on all P and PE routers
- D. AutoTunnel Mesh Groups on all PE routers

Answer: D

**NEW QUESTION 479**

DRAG DROP

Drag the command on the left to the correct step on the right to perform Frame Relay interworking with Ethernet over MPLS on a Cisco IOS router.

|                                                |        |
|------------------------------------------------|--------|
| encapsulation mpls                             | Step 1 |
| connect name serial-interface DLCI I2transport | Step 2 |
| frame-relay switching                          | Step 3 |
| xconnect IP address circuit-id pw-class name   | Step 4 |
| pseudowire-class name                          | Step 5 |
| interworking                                   | Step 6 |

Answer:

Explanation:

Drag the command on the left to the correct step on the right to perform Frame Relay interworking with Ethernet over MPLS on a Cisco IOS router.

|                                                |                                                |
|------------------------------------------------|------------------------------------------------|
| encapsulation mpls                             | frame-relay switching                          |
| connect name serial-interface DLCI I2transport | pseudowire-class name                          |
| frame-relay switching                          | encapsulation mpls                             |
| xconnect IP address circuit-id pw-class name   | interworking                                   |
| pseudowire-class name                          | connect name serial-interface DLCI I2transport |
| interworking                                   | xconnect IP address circuit-id pw-class name   |

**NEW QUESTION 484**

```

route-policy FILTER
 if tag eq 66 then
 set local-preference 200
 set origin igp
 set community (65444:222, no-export)
 set next-hop 2001:db8:0:ff::abcf
 else
 drop
 endif
end-policy
!
route static
 address-family ipv6
 2001:db8:0:ff::abcf/128 null 0

```

Refer to the exhibit. A network engineer is deploying the this RTBH filtering configuration template on 100 Cisco IOS XR router. What is missing from this configuration?

- A. The BGP well-known community no-advertised in the set community command
- B. A static route with tag 66 on the trigger router
- C. A route policy that matches community 6544422
- D. A tag 66 on the static route that is applied to all 100 routers

Answer: D

**NEW QUESTION 488**

DRAG DROP

Drag and drop the IS-IS prefix type on the left onto the correct order from the most preferable(top) to the least preferable (bottom)

|                                                                 |                 |
|-----------------------------------------------------------------|-----------------|
| Layer 1 intra-area prefixes                                     | most preferable |
| Layer 2 intra-area prefixes                                     |                 |
| Layer 1 external prefixes with internal metrics                 |                 |
| Layer 1 external prefixes with external metrics                 |                 |
| Layer 2 external prefixes with internal metrics                 |                 |
| Layer 2 external prefixes with external metrics                 |                 |
| leaked prefixes from Layer 2 into Layer 1 with internal metrics |                 |
| leaked prefixes from Layer 2 into Layer 1 with external metrics | less preferable |

**Answer:**

**Explanation:**

|                                                                 |                                                                 |
|-----------------------------------------------------------------|-----------------------------------------------------------------|
| Layer 1 intra-area prefixes                                     | Layer 1 intra-area prefixes                                     |
| Layer 2 intra-area prefixes                                     | Layer 1 external prefixes with internal metrics                 |
| Layer 1 external prefixes with internal metrics                 | Layer 2 intra-area prefixes                                     |
| Layer 1 external prefixes with external metrics                 | Layer 2 external prefixes with internal metrics                 |
| Layer 2 external prefixes with internal metrics                 | leaked prefixes from Layer 2 into Layer 1 with internal metrics |
| Layer 2 external prefixes with external metrics                 | Layer 1 external prefixes with external metrics                 |
| leaked prefixes from Layer 2 into Layer 1 with internal metrics | Layer 2 external prefixes with external metrics                 |
| leaked prefixes from Layer 2 into Layer 1 with external metrics | leaked prefixes from Layer 2 into Layer 1 with external metrics |

**NEW QUESTION 491**

Which two IOS commands are equivalent for putting a Cisco 7500 OC-12 RPR interface card into wrapped mode? Select all that apply

- A. shutdown [a | b]
- B. srp shutdown [a | b]
- C. srp ips request manual-switched [a | b]

**Answer: BC**

**NEW QUESTION 495**

Which feature allows an MPLS TE tunnel to be used by an IGP at the headend of the tunnel ?

- A. MPLS TE Forwarding Adjacency
- B. Generalized MPLS
- C. Different Services traffic Engineering
- D. MPLS TE link management
- E. MPLS TE autoroute announce

**Answer: E**

**NEW QUESTION 500**

Which statement describes a restriction of inter-AS MPLS VPN?

- A. Allows a VPN to cross more than one service provider backbone.
- B. Inter-AS functionality is available using both VPNv4 and VPNv6.
- C. Inter-AS functionality is available using VPNv4 only.
- D. Inter-AS functionality is available using VPNv6 only.

**Answer: C**

**NEW QUESTION 501**

Which type of IPv6 address does OSPFv3 use to communicate with OSPFv3 neighbors?

- A. link-local
- B. site-local
- C. global
- D. unique local
- E. anycast

**Answer: A**

**NEW QUESTION 505**

A customer requests that sites are connected over an MPLS backbone using the MPLS AToM service. However, the network engineer advises that the MPLS L3VPN service may be better for this situation. Which characteristic of MPLS L3VPN may make it a better option from the Service Provider perspective?

- A. Reduction of operational complexity.
- B. Support for multiple network layer protocols, such as IP, IPX, and SNA
- C. Customer Layer 2 information will be maintained over the service provider core.
- D. Transparent to the customer

**Answer: A**

**NEW QUESTION 509**

Which three options are EIGRP route types? (Choose three.)

- A. internal rout
- B. routes that originate within the AS
- C. summary rout
- D. routes that are summarized in the router
- E. external rout
- F. routes that are redistributed to EIGRP
- G. partial rout
- H. partial routes that are summarized in the router
- I. stub rout
- J. default route that originates in the area

**Answer: ABC**

**NEW QUESTION 512**

Which of the following processes are likely to be found in a microkernel?

- A. Memory management
- B. Lightweight messaging
- C. Process scheduling
- D. Hardware abstraction
- E. Host stack
- F. All of the above

**Answer: F**

**NEW QUESTION 515**

```
PE1

router bgp 65000
 address-family ipv4 vrf A
 redistribute rip

router rip
 address-family ipv4 vrf A
 redistribute bgp 65000 metric 2
```

Refer to the exhibit RIP is used as a PE -CE routing protocol A customer engineer from the remote side notices that the RIP metric changed to an unexpected value Which is the correct configuration that must be applied on PE1 that prevents this behavior?

- A.
 

```
router rip
 address-family ipv4 vrf A
 redistribute bgp 65000 metric transparent
```
- B.
 

```
router bgp 65000 address-family ipv4 vrf A redistribute rip metric 0
```
- C.
 

```
router rip
 address-family ipv4 vrf A redistribute bgp 65000 metric 0
```
- D.
 

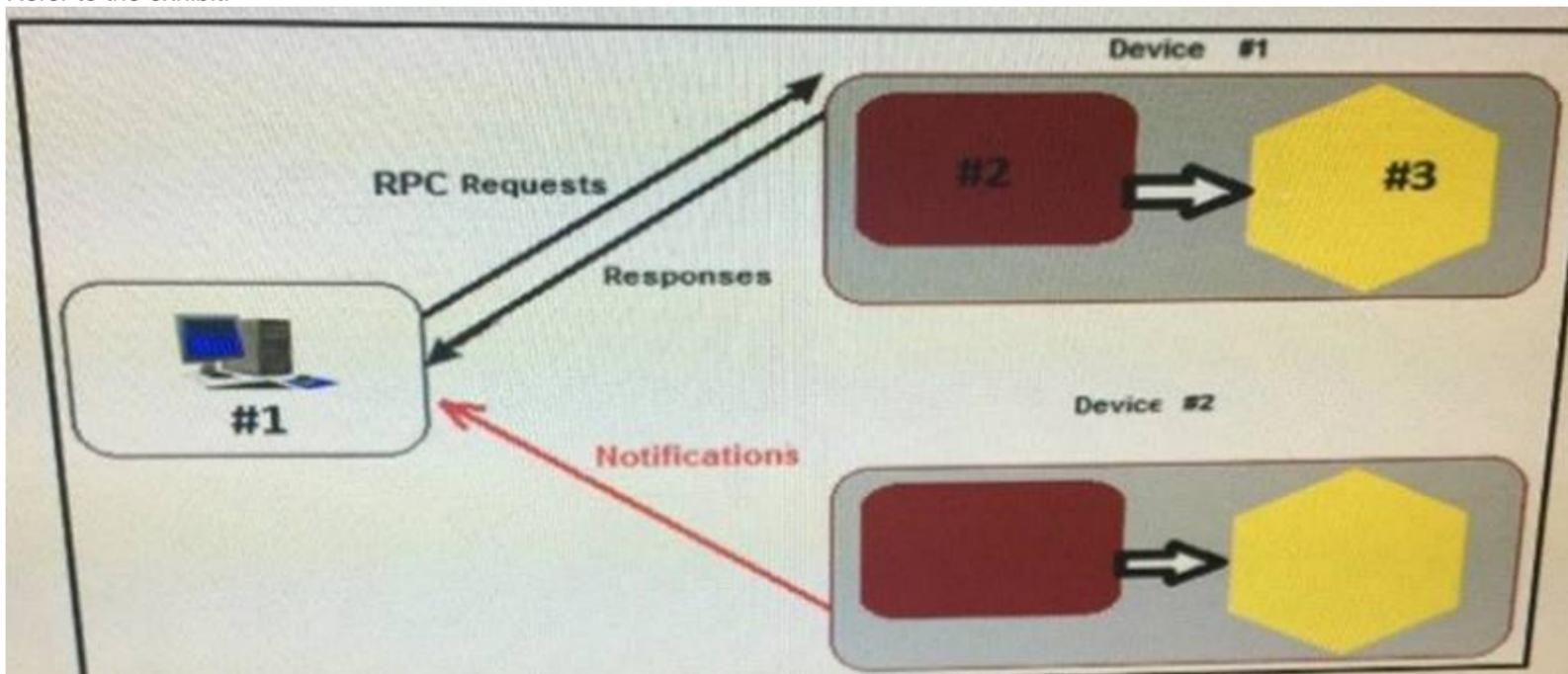
```
router bgp 65000 address-family ipv4 vrf A
 redistribute rip metric transparent
```

**Answer:**

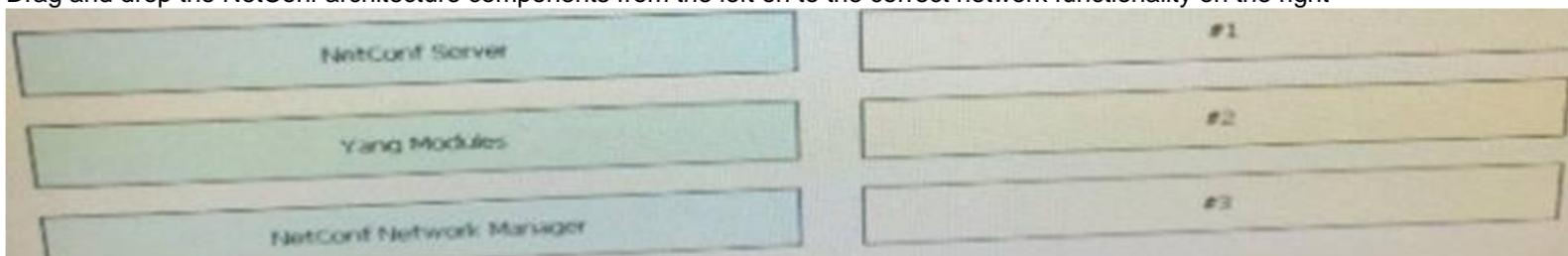
**NEW QUESTION 520**

DRAG DROP

Refer to the exhibit.

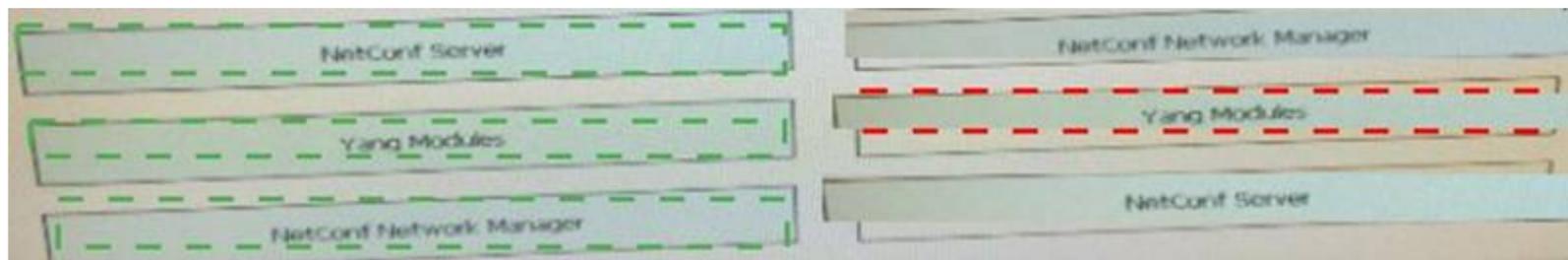


Drag and drop the NetConf architecture components from the left on to the correct network functionality on the right



**Answer:**

**Explanation:**



**NEW QUESTION 522**

A network engineer is using IS-IS IGP protocol to design a network.

Which three design elements should be used to divide the network into a hierarchy of areas? (Choose three.)

- A. Core routers will be only level-2.
- B. Routers on the edge of the network will be only level-1.
- C. Router between core and edge routers will be level-1-2.
- D. Routers on the edge of the network will be only level-2.
- E. Router between core and edge routers will be only level-2.
- F. Router between core and edge routers will be only level-1.

**Answer:** ABC

**NEW QUESTION 523**

Which three network topologies can be deployed on the cisco ASR 9000 satellite nV System network? (Choose three)

- A. Mesh Network
- B. Layer 2 fabric
- C. Dual home
- D. Overlay network
- E. Dual ring
- F. Hub and spoke

**Answer:** BCF

**NEW QUESTION 527**

Which of the below protocols can be used to secure CoAP?

- A. MACsec
- B. DTLS
- C. IPsec
- D. TLS

**Answer:** B

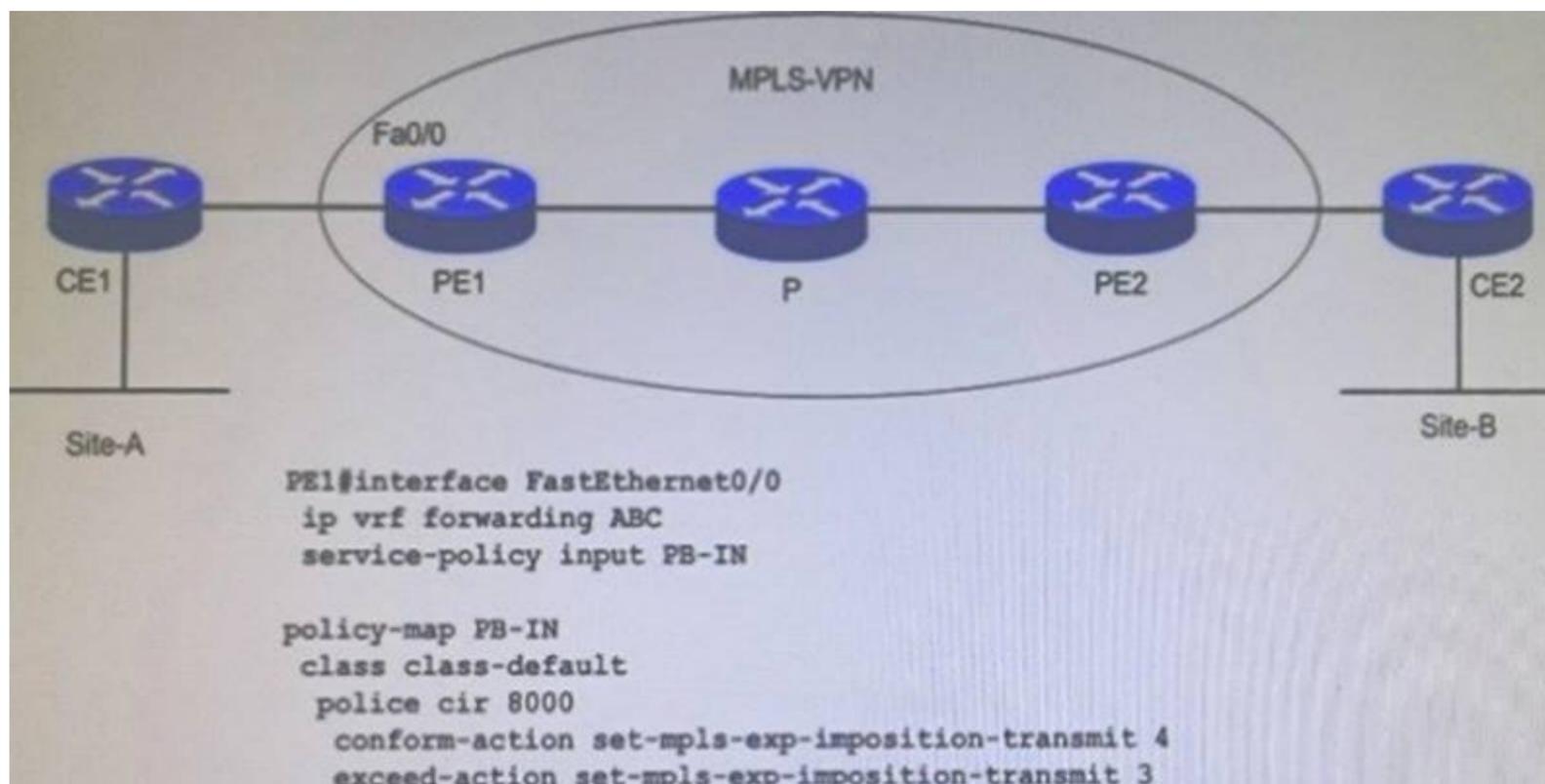
**NEW QUESTION 530**

In MPLS VPN, where must MP-BGP peering be configured?

- A. in all CE routers within a VPN community
- B. in all CE routers across a VPN community
- C. in all PE routers within a VPN community
- D. in all PE routers across a VPN community
- E. in all PE and CE routers within a VPN community
- F. in all PE and CE routers across a VPN community

**Answer:** C

**NEW QUESTION 532**



An MPLS Layer 3 VPN service has been provisioned for a customer. What will be the ToS value at Site-B for the exceeded traffic that it is sent from Site-A with ToS 2?

- A. 2
- B. 3
- C. 4
- D. No exceeded traffic will reach Site-B.

**Answer: B**

**NEW QUESTION 535**

DRAG DROP

| Drag the OSPFv3 LSA type number on the left to the correct LSA name on the right. |                       |
|-----------------------------------------------------------------------------------|-----------------------|
| 0x2001                                                                            | inter-area Prefix LSA |
| 0x2002                                                                            | AS External LSA       |
| 0x2003                                                                            | Link LSA              |
| 0x2004                                                                            | Router LSA            |
| 0x4005                                                                            | intra-area Prefix LSA |
| 0x2007                                                                            | inter-area Router LSA |
| 0x0008                                                                            | Network LSA           |
| 0x2009                                                                            | Type 7 LSA            |

**Answer:**

**Explanation:**

Drag the OSPFv3 LSA type number on the left to the correct LSA name on the right.

|        |        |
|--------|--------|
| 0x2001 | 0x2003 |
| 0x2002 | 0x4005 |
| 0x2003 | 0x0008 |
| 0x2004 | 0x2001 |
| 0x4005 | 0x2009 |
| 0x2007 | 0x2004 |
| 0x0008 | 0x2002 |
| 0x2009 | 0x2007 |

**NEW QUESTION 539**

DRAG DROP

Drag and drop PIM mode from the left onto the corresponding characteristic on the right. Not all options are used

|                               |                                                                                                                       |
|-------------------------------|-----------------------------------------------------------------------------------------------------------------------|
| PIM Sparse Mode               | It builds a shared distribution tree through the RP then a source distribution tree from the receivers to the source. |
| BIDIR-PIM                     | It builds a shared distribution tree and forwards traffic between the source and receivers through the RP.            |
| PIM Dense Mode                | It builds a source distribution tree and it does not require RP configuration.                                        |
| PIM Source Specific Multicast |                                                                                                                       |

**Answer:**

**Explanation:**

|                               |                               |
|-------------------------------|-------------------------------|
| PIM Sparse Mode               | BIDIR-PIM                     |
| BIDIR-PIM                     | PIM Sparse Mode               |
| PIM Dense Mode                | PIM Source Specific Multicast |
| PIM Source Specific Multicast |                               |

**NEW QUESTION 541**

The XYZ service provider network is composed of hundreds of routers that run OSPF and LDP. Which two LDP features can be used to increase peering update performance and reduce local memory consumption? (Choose two)

- A. Session protection
- B. Specify label range
- C. Autoconfig
- D. Label allocation control
- E. IGP sync
- F. Label acceptance control

**Answer:** DF

**NEW QUESTION 545**

**DRAG DROP**

Drag the OPSFv2 LSA type number on the left to the correct LSA name on the right.

|   |                      |
|---|----------------------|
| 1 | NSSA External LSA    |
| 2 | AS External LSA      |
| 3 | Network LSA          |
| 4 | Network Summary LSA  |
| 5 | ASBR Summary LSA     |
| 6 | Router LSA           |
| 7 | Group Membership LSA |

**Answer:**

**Explanation:**

Drag the OPSFv2 LSA type number on the left to the correct LSA name on the right.

|   |   |
|---|---|
| 1 | 7 |
| 2 | 5 |
| 3 | 2 |
| 4 | 3 |
| 5 | 4 |
| 6 | 1 |
| 7 | 6 |

**NEW QUESTION 550**

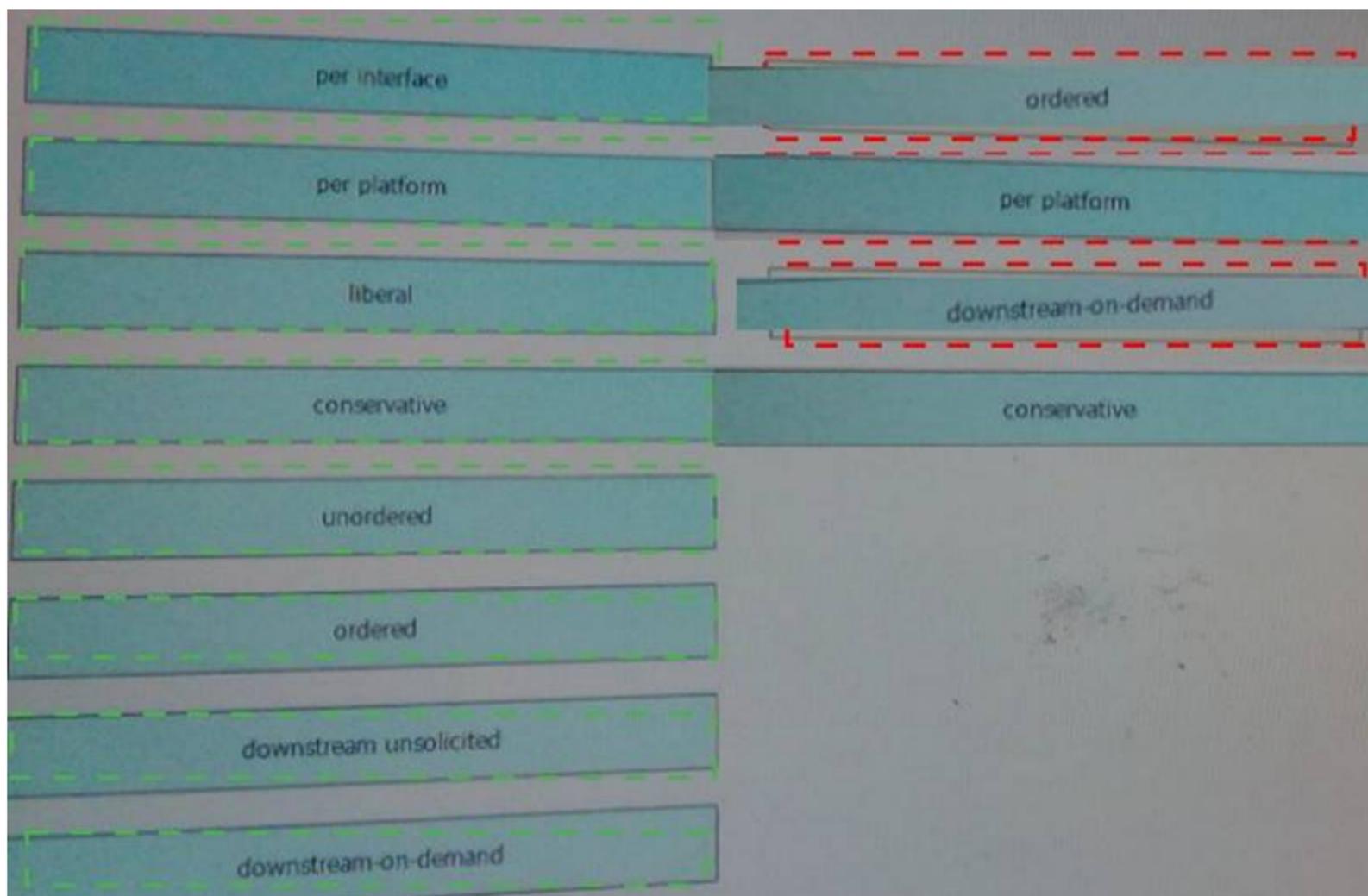
**DRAG DROP**

Based on the terminology that was introduced in RFC 3031, drag and drop the mode of generating and distributing labels that is used by RSVP-TE on the correct label distribution method on the right

|                        |              |
|------------------------|--------------|
| per interface          | control      |
| per platform           | distribution |
| liberal                | retention    |
| conservative           | label space  |
| unordered              |              |
| ordered                |              |
| downstream unsolicited |              |
| downstream-on-demand   |              |

Answer:

Explanation:



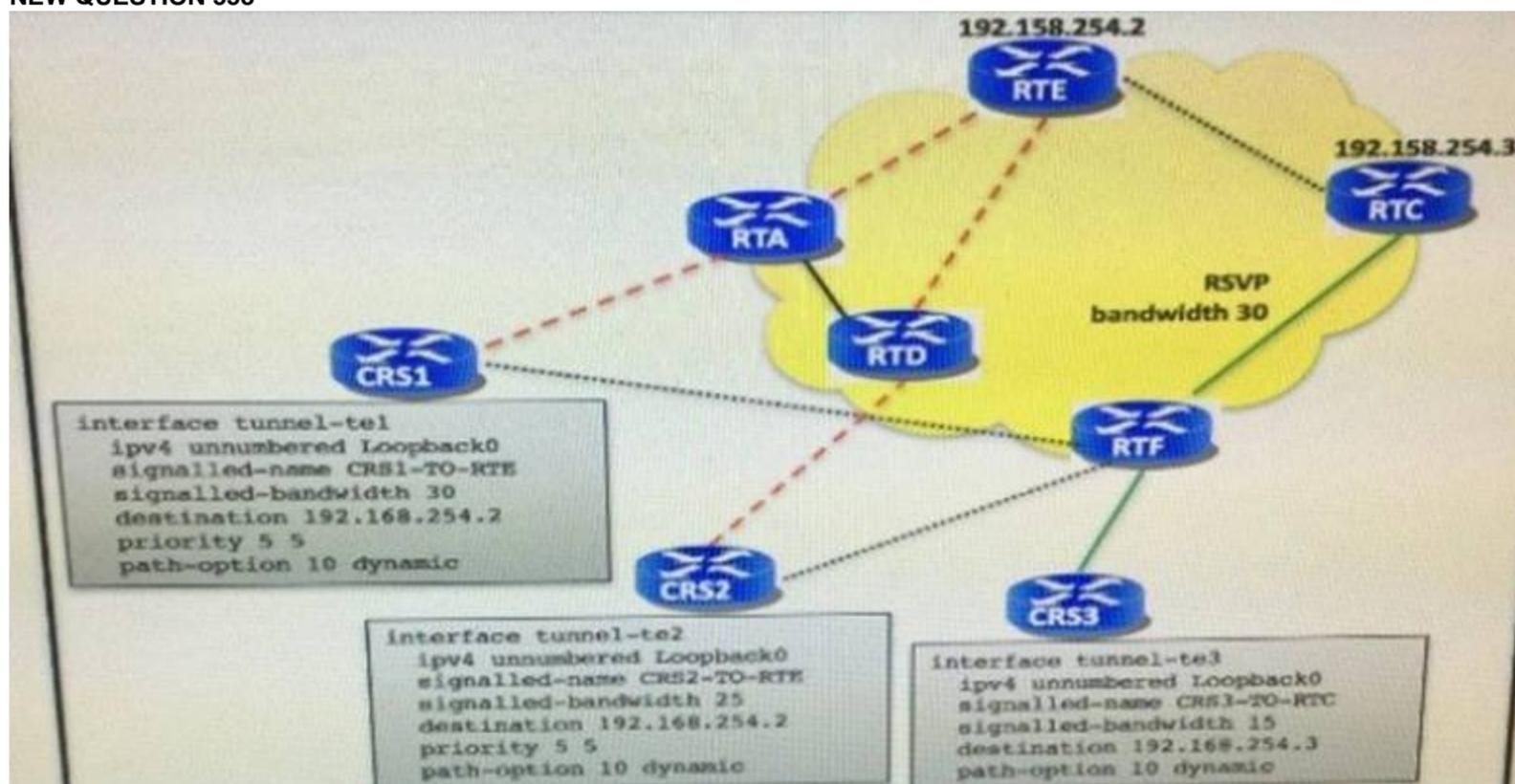
**NEW QUESTION 555**

The origin is a mandatory attribute that defines the origin of the path information. Which three options are valid origin attributes? (Choose three.)

- A. IBGP: NLRI is learned via intra-AS BGP.
- B. EBGP: NLRI is learned via inter-AS BGP.
- C. IGP: NLRI is interior to the AS of origination.
- D. EGP: NLRI is learned via EGP.
- E. INCOMPLETE
- F. NLRI is unknown or learned some other way.

Answer: CDE

**NEW QUESTION 558**



Refer to the exhibit. The red dashed lines represent the preferred paths for the MPLS TE tunnel 1 and MPLS TE tunnel 2 to reach RTE. The black dotted lines are the less desirable path. In case RTA or RTD fails, the MPLS TE tunnel 1 and MPLS TE tunnel 2 preempt the MPLS TE tunnel 3. This causes a lack of the MPLS connectivity from CRS3. Which solution avoids the MPLS TE tunnel 3 to be teardown by the MPLS TE tunnel 1 and MPLS TE tunnel 2?

- A. change the MPLS TE tunnel 3 priority values to 6 4
- B. lower the signaled-bandwidth value of the MPLS TE tunnel 3
- C. use the exclude option on the explicit path configuration for the MPLS TE tunnel 1 and MPLS TE tunnel 2
- D. change the MPLS TE tunnel 3 priority values to 4 6
- E. use affinity and link coloring in all MPLS TE tunnels and MPLS TE link resources

**Answer:** A

**NEW QUESTION 561**

Where is the MPLS label imposed?

- A. after the Layer 3 header and before the Layer 2 payload
- B. after the Layer 3 header and before the Layer 4 payload
- C. after the Layer 2 header and before the Layer 1 payload
- D. after the Layer 1 header and before the Layer 2 payload
- E. after the Layer 2 header and before the Layer 3 payload

**Answer:** E

**NEW QUESTION 564**

Which three PIM modes require RP? (Choose three)

- A. PIM-DM
- B. PIM-SM
- C. PIM with mLDP
- D. PIM-SSM
- E. PIM anycast
- F. PIM-BIDIR

**Answer:** BEF

**NEW QUESTION 565**

What protocol is used for Path Setup in MPLS traffic engineering?

- A. BGP
- B. PIM
- C. ISIS
- D. OSPF
- E. RSVP

**Answer:** E

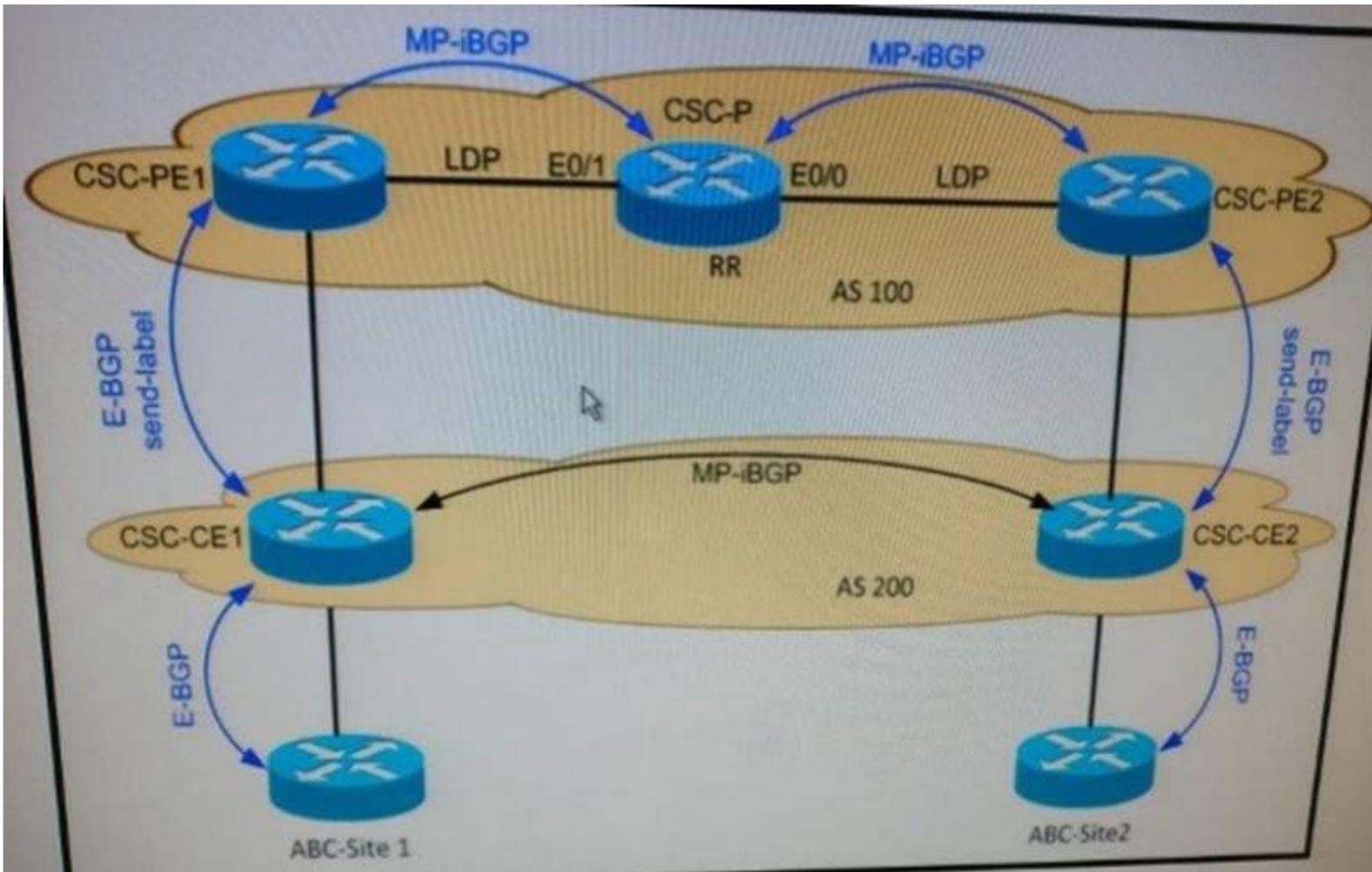
**NEW QUESTION 568**

Which two steps take place in the BGP Link State architecture ? (Choose two)

- A. IGP is redistributed into BGP-LS
- B. Advertise the BGP-LS NLRIs to the topology server
- C. IGP uses BGP LS data from remote peers
- D. Enable access to the Adj-RIB-In (BGP raw format )of a peer border router or provider edge router
- E. BGP downloads the received BGP LS data to the IGP component on the router

**Answer:** BC

**NEW QUESTION 573**



Refer to the exhibit AS 200 uses the CSC solution provided by AS 100 with regards to the packets originated on ABC-Site2 going toward to ABC-Site1, how many labels are in the label stack of these packets when they cross the link between CSC-PE2 and CS-P?

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

Answer: C

**NEW QUESTION 578**

DRAG DROP

Drag and drop each iACL entry from the left onto its logical order on the right to provider an infrastructure ACL protection on a service provider router

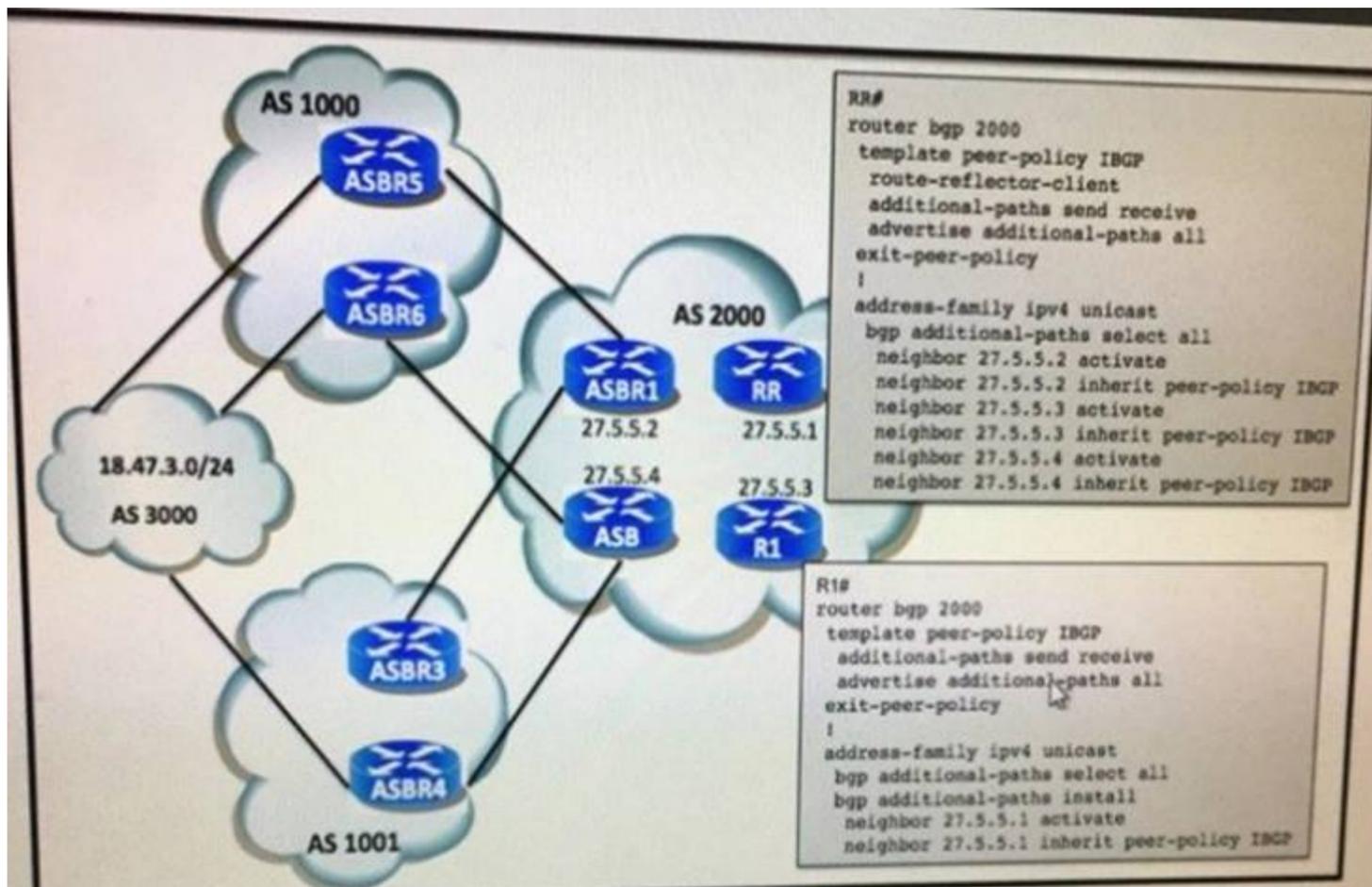
|                                                                      |           |
|----------------------------------------------------------------------|-----------|
| deny ipv6 any 2001:0088:C18::/47                                     | 1st entry |
| permit ipv6 any any                                                  | 2nd entry |
| deny ipv6 any 2001:0088:C18::/48 fragments                           | 3rd entry |
| permit tcp host 2001:0088:C19:2:1:F host 2001:0088:C18:2:1::1 eq bgp | 4th entry |

Answer:

Explanation:

|                                                                      |                                                                      |
|----------------------------------------------------------------------|----------------------------------------------------------------------|
| deny ipv6 any 2001:0088:C18::/47                                     | deny ipv6 any 2001:0088:C18::/48 fragments                           |
| permit ipv6 any any                                                  | permit tcp host 2001:0088:C19:2:1:F host 2001:0088:C18:2:1::1 eq bgp |
| deny ipv6 any 2001:0088:C18::/48 fragments                           | deny ipv6 any 2001:0088:C18::/47                                     |
| permit tcp host 2001:0088:C19:2:1:F host 2001:0088:C18:2:1::1 eq bgp | permit ipv6 any any                                                  |

**NEW QUESTION 583**



Refer to the exhibit. AS2000 has deployed the BGP additional path feature. Assuming GP filtering has been deployed in any routers, how many entries does R1 have in the RIB/FFIB table for the 18.47.3.0/24 prefix?

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

**Answer: B**

**NEW QUESTION 587**

Which technology encapsulates customer Ethernet frames with a service provider MAC header?

- A. VPLS
- B. Q-in-Q
- C. MAC-in-MAC
- D. EVPN

**Answer: C**

**NEW QUESTION 589**

DRAG DROP

Drag the IS-IS TLV number on the left to the correct IS-IS TLV name on the right.

|     |                          |
|-----|--------------------------|
| 1   | IP internal reachability |
| 2   | IP external reachability |
| 22  | dynamic hostname         |
| 128 | IS neighbors             |
| 129 | protocols supported      |
| 130 | extended IS reachability |
| 132 | area address             |
| 137 | IP interface address     |

**Answer:**

**Explanation:**

Drag the IS-IS TLV number on the left to the correct IS-IS TLV name on the right.

|     |     |
|-----|-----|
| 1   | 128 |
| 2   | 130 |
| 22  | 137 |
| 128 | 2   |
| 129 | 129 |
| 130 | 22  |
| 132 | 1   |
| 137 | 132 |

**NEW QUESTION 591**

Which three characteristics does the SNMPv3 protocols add compared to previous SNMP versions? (Choose three)

- A. Performance improvements
- B. Encryption support
- C. Authentication support
- D. Manager-to-manager communications
- E. Remote configuration enhancements
- F. Reliable transport based on TCP instead of UDP

**Answer:** BCE

**NEW QUESTION 592**

Which type of AAL does ATM utilize to deliver CBR traffic?

- A. AAL2
- B. AAL4
- C. AAL5
- D. AAL1
- E. AAL3

**Answer:** D

**Explanation:** An ATM Adaptation layer 1 or AAL1 is used for transmitting Class A traffic, that is, real-time, constant bit rate, connection oriented traffic (example-uncompressed audio and video). Bits are fed in by the application at constant rate and must be delivered to other end with minimum delay, jitter or overhead. The input is stream of bits without message boundaries. For this traffic, error detection protocols cannot be used since timeouts and retransmission causes delay but the missing cells are reported to the application, that must take its own action to recover from them.

**NEW QUESTION 597**

Router 1 is a PE router within the MPLS core network. The router is designed to provide multicast VPN services for VRF A. A requirement of the core network prevents RP configuration and focuses on SSM for all multicast traffic. Consider this configuration:

```
Router 1
!
vrf definition A rd 1001:1001
!
address-family ipv4
route-target export 1001:1001
route-target import 1001:1001
mdt default 235.1.1.1
```

Which configuration is needed to support MDT?

- A. access-list 110 permit 235.1.1.1 0.0.0.0 ip pim ssm range 110
- B. access-list 110 permit 235.1.1.1 0.0.0.0 ip pim ssm default access-list 110
- C. access-list 10 permit 235.1.1.0 0.0.0.255 ip pim ssm range 10
- D. access-list 10 permit 235.1.1.0 0.0.0.255 ip pim ssm default access-list 10

**Answer:** C

**NEW QUESTION 600**

Which Cisco IOS command must be applied to create a multiprotocol VRF?

- A. ip vrf
- B. ip vrf forwarding
- C. vrf definition
- D. vrf downgrade-cli

E. vrf forwarding

**Answer: C**

**NEW QUESTION 602**

What does UDLD stand for?

- A. UniDirectional Loop Detection
- B. Unspecified Distribution Label Detection
- C. Unified Distribution Label Direction
- D. UniDirectional Link Detection

**Answer: D**

**NEW QUESTION 605**

Which IEEE task group provides a method to implement QoS on an Ethernet level?

- A. 802.1ab
- B. 802.1p
- C. 802.1q
- D. 802.1s
- E. 802.1w

**Answer: B**

**NEW QUESTION 610**

Which option is the main task of the BGP I/O?

- A. handles queuing and processing of BGP packets
- B. performs BGP peer establishment
- C. imports and exports routes into a particular VPN routing and forwarding instance
- D. calculates the best BGP path
- E. interacts with the routing information base

**Answer: A**

**NEW QUESTION 611**

From the show interface output, which two options describe the two fields that are indicated as "unknown protocol drops"? (Choose two.)

- A. packet drops for protocols that are not configured on the interface
- B. packet drops for protocols that are not recognized by the interface
- C. packet drops for protocols that are not destined for the interface
- D. packet drops for protocols that are not sourced by the interface
- E. packet drops for protocols that are denied in the ACL attached on the interface

**Answer: AB**

**NEW QUESTION 614**

Refer to the exhibit.

```
Rack1SW1#show etherchannel summary
Flags: D - down P - bundled in port-channel
 I - stand-alone s - suspended
 R - Layer3 S - Layer2
 U - in use f - failed to allocate aggregator

Group Port-channel Protocol Ports
-----+-----+-----+-----
12 Po12(SU) - Fa0/13(s) Fa0/14(P)

interface FastEthernet0/13
description -- TO_R1 --
switchport trunk encapsulation dot1q
switchport trunk allowed vlan 200,300,400,500
switchport mode trunk
load-interval 30
channel-group 12 mode on

interface FastEthernet0/14
description -- R1 --
switchport trunk encapsulation dot1q
switchport trunk allowed vlan 100,200,300,400,500
switchport mode trunk
duplex auto
channel-group 12 mode on
```

Which action can fix the problem with the port channel?

- A. Unify interface descriptions on both interfaces.
- B. Unify load-interval on both interfaces.
- C. Add duplex full on interface F0/13.
- D. Add VLAN 100 to VLAN allowed list on Fa0/13.

**Answer: D**

**NEW QUESTION 616**

What is the function of the AJB bits on DS1 using Extended Super Frame (ESF)?

- A. It is used for signaling on-hook and off-hook status.
- B. It carries CRC information for error detection.
- C. It is used for a control and performance information.
- D. It is used for a frame's synchronization and alignment.

**Answer: A**

**Explanation:** DS1 frame synchronization[edit source | edit]

See also: Synchronization in telecommunications

Frame synchronization is necessary to identify the timeslots within each 24-channel frame. Synchronization takes place by allocating a framing, or 193rd, bit. This results in 8 kbit/s of framing data, for each DS1.

Because this 8-kbit/s channel is used by the transmitting equipment as overhead, only

1.536 Mbit/s is actually passed on to the user. Two types of framing schemes are Super Frame (SF) and Extended Super Frame (ESF). A Super Frame consists of twelve consecutive 193-bit frames, whereas an Extended Super Frame consists of twenty-four consecutive 193-bit frames of data. Due to the unique bit sequences exchanged, the framing schemes are not compatible with each other. These two types of framing (SF, and ESF) use their 8 kbit/s framing channel in different ways.

**NEW QUESTION 617**

Which three of these are types of Ethernet Virtual Connections (EVCs) in the MEF concept? (Choose three)

- A. rooted multipoint EVC (E-Tree)
- B. point-to-point EVC (E-Line)
- C. point-to-multipoint EVC (E-Tree)
- D. hub spoke EVC (E-Tree)
- E. multipoint-to-multipoint EVC (E-LAN)

**Answer: ABE**

**Explanation:** MEF Service

Ethernet Service Types can be used to create a broad range of Subscriber services. The service types are characterized by their required connectivity [10]. The following service types have been defined to date:

Ethernet Line Service (E-Line Service) uses a Point-to-Point EVC. The Ethernet LAN Service (E-LAN Service) uses a Multipoint-to-Multipoint EVC. The Ethernet Tree Service (E-TREE Service) uses a Rooted-Multipoint EVC.

**NEW QUESTION 620**

In the context of GMPLS, LMP stands for:

- A. Load Management Protocol
- B. Label Management Protocol
- C. Loop Management Protocol
- D. Link Management Protocol

**Answer:** D

**Explanation:** The Generalized Multi-Protocol Label Switching (GMPLS)[1] is a protocol suite extending MPLS to manage further classes of interfaces and switching technologies other than packet interfaces and switching, such as time division multiplex, layer-2 switch, wavelength switch and fiber-switch.

GMPLS is composed of three main protocols:

Resource Reservation Protocol with Traffic Engineering extensions (RSVP-TE) signaling protocol.[5][6] Open Shortest Path First with Traffic Engineering extensions (OSPF-TE) routing protocol.[7][8] Link Management Protocol (LMP).[9]

**NEW QUESTION 624**

A network administrator has configured an IPsec security policy index at the OSPFv3 Area level. Which interfaces are applied with OSPFv3 IPsec authentication?

- A. interfaces exclusively configured with OSPFv3
- B. all interfaces in the OSPFv3 area
- C. all interfaces in SPI
- D. all interfaces in an OSPFv2 and OSPFv3

**Answer:** B

**NEW QUESTION 628**

A router is unable to route packets over a PPPoE link. What could be the cause of this issue?

- A. incorrect IPCP connection for the agreed-upon IP address
- B. incorrect dialer map profile
- C. incorrect username of the PPP connection
- D. incorrect access list

**Answer:** B

**NEW QUESTION 632**

A service provider is using QoS to manage customer traffic over the MPLS backbone. Which three statements about the behavior of each MPLS QoS mode based on QoS policy in the service provider core are true? (Choose three.)

- A. Uniform mode does not change the original CE IP packet markings.
- B. Uniform mode changes the original CE IP packet markings.
- C. Pipe mode does not change the original CE IP packet markings.
- D. Pipe mode changes the original CE IP packet markings.
- E. Short-pipe mode does not change the original CE IP packet markings.
- F. Short-pipe mode changes the original CE IP packet markings.

**Answer:** BCE

**NEW QUESTION 634**

What features set is most frequently used to prevent hackers from flooding a port with MAC- addresses?

- A. BPDU Guard
- B. 802.x
- C. Port Security
- D. Storm Control

**Answer:** C

**NEW QUESTION 635**

Which option is the SONET frame format of the STM-4 SDH circuit?

- A. STS-1
- B. STS-192
- C. STS-12
- D. STS-3

**Answer:** C

**NEW QUESTION 636**

Which ITU publication defines the requirements for communicating data over an optical network?

- A. G.706
- B. G.707

- C. G.708
- D. G.709

**Answer:** D

**NEW QUESTION 639**

Which three are the ATM cell header fields? (Choose three.)

- A. Cell loss priority (CLP)
- B. Discard eligibility (DE)
- C. Head error control (HEC)
- D. Generic flow control (GFC)
- E. Forward explicit congestion notification (FECN)

**Answer:** ACD

**Explanation:** The ATM cell header consists of the following fields: generic flow control (GFC), virtual path identifier (VPI), virtual channel identifier (VCI), payload type (PT), cell loss priority (CLP) and header error control (HEC).

**NEW QUESTION 641**

Which statement about standard STS-1 SONET framing is true?

- A. 8 rows by 64 bytes
- B. 6 rows by 64 bytes
- C. 10 rows by 96 bytes
- D. 8 rows by 128 bytes
- E. 9 rows by 90 bytes

**Answer:** E

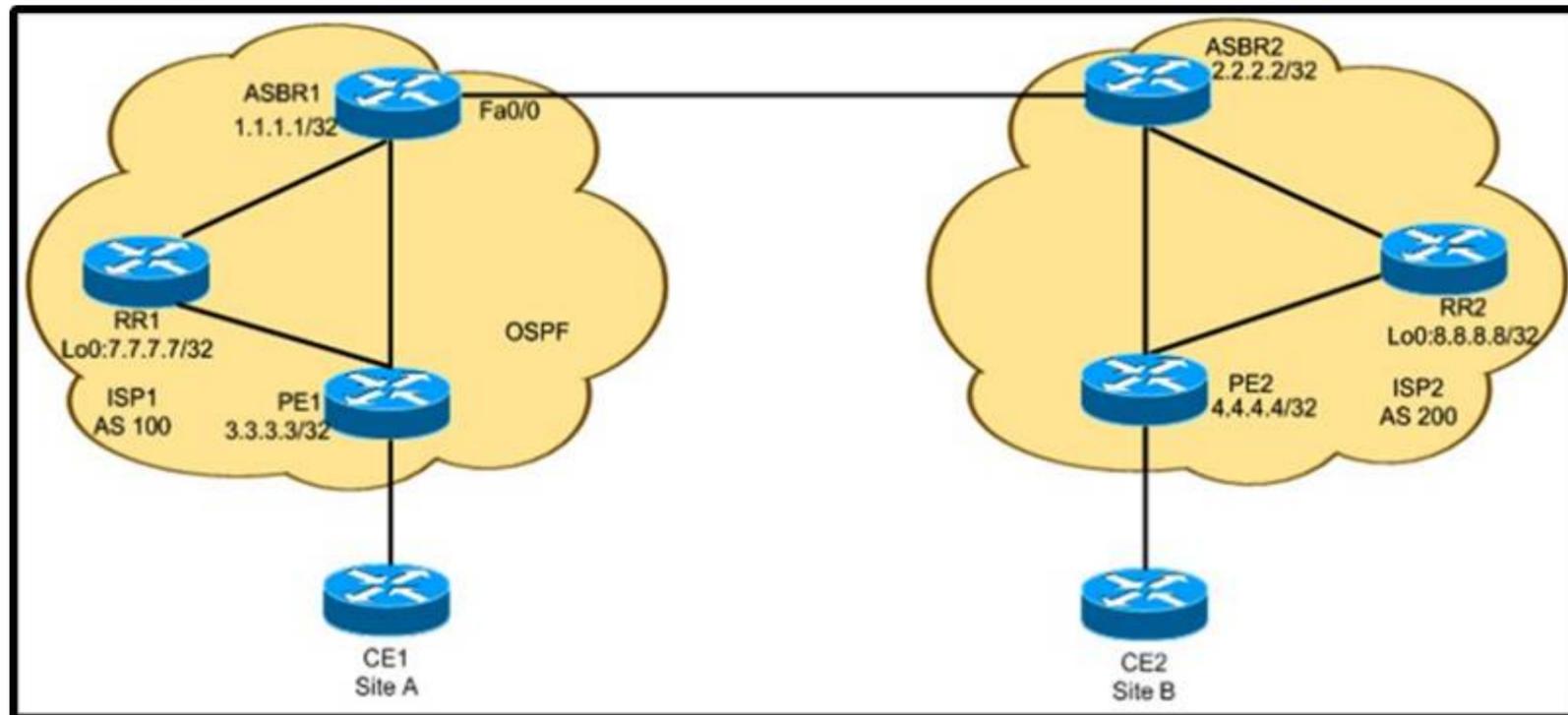
**Explanation:** In the case of an STS-1, the frame is 810 octets in size, while the STM-1/STS-3c frame is 2,430 octets in size.

For STS-1, the frame is transmitted as three octets of overhead, followed by 87 octets of payload. This is repeated nine times, until 810 octets have been transmitted, taking 125 s. In the case of an STS-3c/STM-1, which operates three times faster than an STS-1, nine octets of overhead are transmitted, followed by 261 octets of payload. This is also repeated nine times until 2,430 octets have been transmitted, also taking 125 s.

For both SONET and SDH, this is often represented by displaying the frame graphically: as a block of 90 columns and nine rows for STS-1, and 270 columns and nine rows for STM1/STS-3c. This representation aligns all the overhead columns, so the overhead appears as a contiguous block, as does the payload.

**NEW QUESTION 642**

Refer to the exhibit.



MPLS VPN service has been provisioned for customer ABC using an inter-AS MPLS option

- A. A network admin on ISP1 decided not to redistribute ISP2 received loopback addresses into IGP.Which five commands can be configured to guarantee an end-to-end connectivity between ABC sites? (Choose five.)
- B. configure on ASBR1 BGP VPNv4 address-family neighbor 7.7.7.7 send-label
- C. configure on ASBR1 BGP VPNv4 address-family neighbor 7.7.7.7 next-hop-self
- D. configure on RR1 BGP VPNv4 address-family neighbor 1.1.1.1 send-label
- E. configure on RR1 BGP IPv4 address-family neighbor 1.1.1.1 send-label
- F. configure on RR1 BGP IPv4 address-family neighbor 3.3.3.3 send-label
- G. configure on RR1 BGP VPNv4 address-family neighbor 3.3.3.3 send-label
- H. configure on ASBR1 BGP IPv4 address-family neighbor 7.7.7.7 send-label
- I. configure on ASBR1 BGP IPv4 address-family neighbor 7.7.7.7 next-hop-self
- J. configure on PE1 BGP VPNv4 address-family neighbor 7.7.7.7 next-hop-self
- K. configure on PE1 BGP IPv4 address-family neighbor 7.7.7.7 next-hop-self

**Answer:** DEGHJ

**NEW QUESTION 647**

.....

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