

## 400-201 Dumps

### CCIE SP Written v4.0

<https://www.certleader.com/400-201-dumps.html>



**NEW QUESTION 1**

In an end-to-end layer 2 service, Which technology provides the capability to detect verify isolate and report faults across a provider network?

- A. CFM
- B. Carrier detect
- C. UDLD
- D. BFD

**Answer: A**

**NEW QUESTION 2**

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**

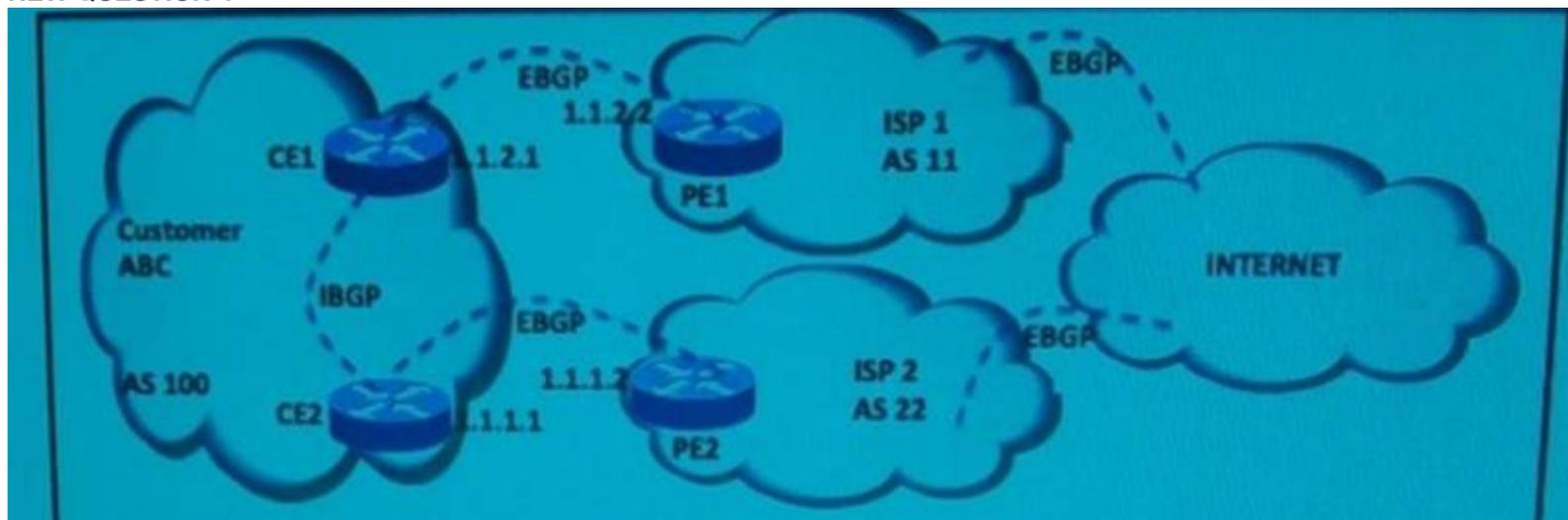
**NEW QUESTION 3**

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 4**



Refer to the exhibit Customer ABC is peering with two service providers for internet access. In order to prevent the AS 100 from becoming a transit AS between ISP\_1 and ISP\_2. Which BGP configuration must be applied to achieve this goal?

- A. CE1# CE2#ip as-path access-list 1 permit^100\$ ip as-path access-list 1 permit^100\$ route-map LOCAL\_ONLY permit 10 route-map LOCAL\_ONLY permit 10 match as-path 1 match as-path 1router bgp 100 router bgp 100neighbor 1.1.2.2 route-map LOCAL\_ONLY in neighbor 1.1.1.2 route-map LOCAL\_ONLY in
- B. CE1# CE2#ip as-path access-list 1 permit^\$ ip as-path access-list 1 permit^\$route-map LOCAL\_ONLY permit 10 route-map LOCAL\_ONLY permit 10 match as-path 1 match as-path 1router bgp 100 router bgp 100neighbor 1.1.2.2 route-map LOCAL\_ONLY out neighbor 1.1.2.2 route-map LOCAL\_ONLY out
- C. CE1# CE2#ip as-path access-list 1 permit^\$ ip as-path access-list 1 permit^\$route-map LOCAL\_ONLY permit 10 route-map LOCAL\_ONLY permit 10 match as-path 1 match as-path 1router bgp 100 router bgp 100neighbor 1.1.2.2 route-map LOCAL\_ONLY out neighbor 1.1.2.2 route-map LOCAL\_ONLY out
- D. CE1# CE2#ip as-path access-list 1 permit^11\$ ip as-path access-list 1 permit^11\$ route-map LOCAL\_ONLY permit 10 route-map LOCAL\_ONLY permit 10 match as-path 1 match as-path 1router bgp 100 router bgp 100neighbor 1.1.2.2 route-map LOCAL\_ONLY out neighbor 1.1.2.2 route-map LOCAL\_ONLY out
- E. CE1# CE2#ip as-path access-list 1 permit^\$ ip as-path access-list 1 permit^\$route-map LOCAL\_ONLY permit 10 route-map LOCAL\_ONLY permit 10 match as-path 1 match as-path 1router bgp 100 router bgp 100neighbor 1.1.2.2 route-map LOCAL\_ONLY in neighbor 1.1.1.2 route-map LOCAL\_ONLY in

**Answer: C**

**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**

```

PE2# sh bgp vpv6 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 nolabel/28
      rx pathid: 0, tx pathid: 0x0

PE2# ! few minutes later
PE2# sh bgp vpv6 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/nolabel
      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 7**

An support engineer has been tasked to protect an ISP infrastructure from the growing number of encrypted DDoS attacks. The solution should also validate the eBGP peering. Which solution accomplishes these goals?

- A. BGP FlowSpec
- B. BTSH
- C. BGP Route Dampening
- D. BGP LS
- E. RTBH

**Answer: B**

**NEW QUESTION 8**

Which protocol in the IPv6 stack does the MLD protocol use to carry its messages?

- A. NDP
- B. IGMPv6
- C. DHCPv6
- D. IGMP
- E. ICMPv6

**Answer: E**

**NEW QUESTION 9**

Which multicast feature listens multicast conversations maintaining a map in order to control which ports receive specific multicast traffic?

- A. Bidirectional PIM
- B. Source Specific Multicast
- C. PIM assertion
- D. IGMP snooping

**Answer: D**

**NEW QUESTION 10**

An Enterprise XYZ company has a requirement to extend the MPLS/Layer 3 VPN MAN network to the remote branches using Internet as the transport. Which solution can you provide seamless extension of the MPLS/Layer 3 VPN?

- A. LISP
- B. L2TPv3
- C. Cisco Unified MPLS
- D. 2547oDMVPN
- E. Carrier Supporting Carrier

**Answer: D**

**NEW QUESTION 10**

In multicast Inter-AS VPN context, which BGP attribute should you use to overcome the Option B limitation due to a rewritten originator next-hop address in the network.

- A. weight
- B. originator
- C. connector
- D. AS Path

**Answer: C**

**NEW QUESTION 15**

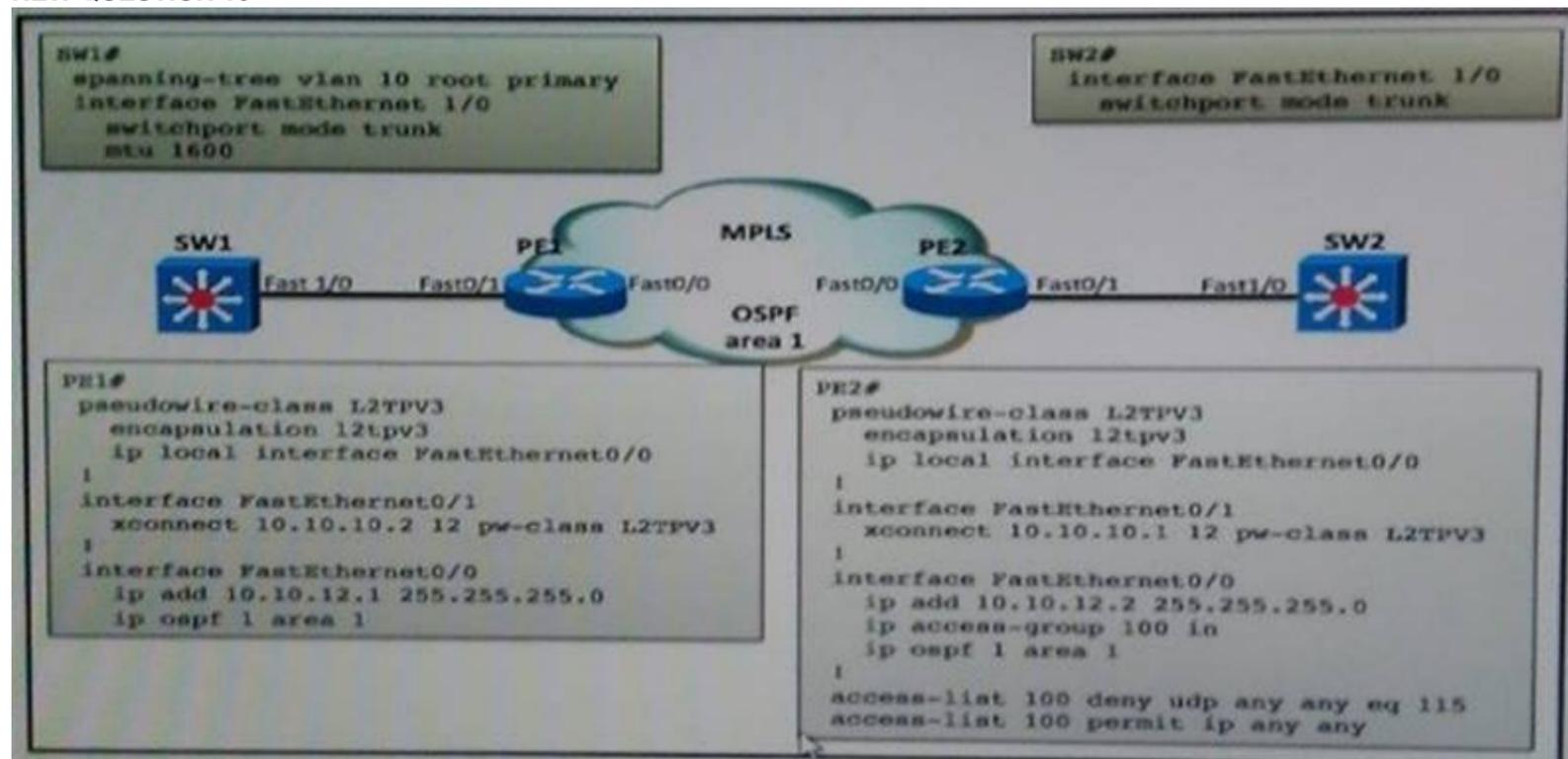
A network operation engineer has these requirement:

- \*prevent multicast transit when it is enforced by unicast stub routing.
  - \*Reduce the overall processing of PIM control traffic. Especially when the number of stub links increases on the stub device.
  - \*protect against multicast spoofing of PM designated router messages and PIM assert messages.
- Which solution meets these requirements?

- A. explicit tracking of receivers.
- B. multicast stub routing.
- C. Source Specific Multicast.
- D. PIM allow RP.

**Answer: B**

**NEW QUESTION 16**



Refer to the exhibit what is the status of the L2 tunnel between PE1,PE2 and the layer 2 switches ?

- A. The layer 2 tunnel is down due to the ACL is applied on the PE2 interface
- B. The layer 2 tunnel is up and SW1 become the root bridge for VLAN 10
- C. The layer 2 tunnel is down due to the MTU mismatch between SW1 and SW2
- D. The layer 2 tunnel is up but no BPDUs are exchange unless an extra configuration is applied

**Answer: B**

**NEW QUESTION 17**

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 19**

Which statement about LDP Session Protection and LDP-IGP sync is true?

- A. Both LDP features cannot be used at the same time in a MPLS LDP enabled network
- B. LDP Session Protection re-exchanges label information when a down-up event occurs; LDP-IGP sync keeps the adjacency and label information in a down-up event
- C. LDP-IGP sync re-exchanges label information when a down-up event occurs; LDP Session Protection keeps the adjacency and label information in a down-up event
- D. Both LDP features must be used together to increase fast convergence on an MPLS LDP-enabled network

**Answer:** D

**NEW QUESTION 20**

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 25**

```

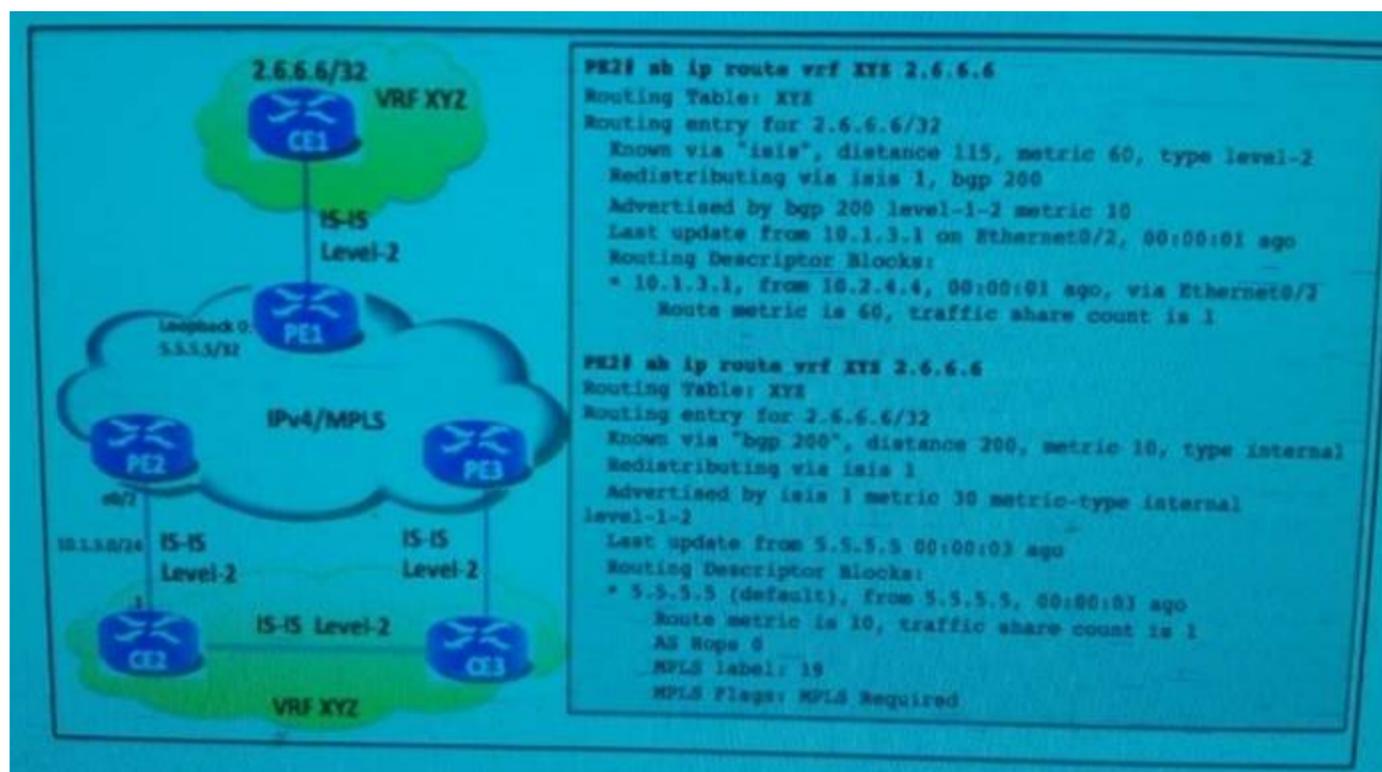
RouterC#
ipv6 unicast-routing
!
interface Gig 0/0
 ip 172.16.1.1 255.255.255.0
 ipv6 address 2001:172:16::1:1/64
 ipv6 eigrp 10
!
interface Gig 0/1
 ip address 10.10.1.1 255.255.255.0
 ipv6 address 2001:10:10::1:1/64
 ipv6 ospf 10 area 0
!
router eigrp 10
 router-id 1.1.1.1
 network 172.16.0.0
!
ipv6 router eigrp 10
 router-id 1.1.1.1
 no shut
!
router ospf 10
 redistribute eigrp 10 subnet
 network 10.0.0.0/0.255.255.255 area 0
!
ipv6 router ospf 10
 router-id 1.1.1.1
    
```

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 27**



Refer to the exhibit the 2.6.6.6/32 prefix is flapping when PE1 is flapping. Which action can fix this issue?

- A. On PE2, allow only redistribution from BGP into IS-IS on PE3, allow only redistribution from IS-IS into BGP
- B. On PE2 and PE3 reconfigure redistribute BGP into IS-IS using the metric-type external parameter
- C. configure a sham link between PE2 and PE3
- D. configure all IS-IS instances as level-1-only

**Answer: A**

**NEW QUESTION 32**

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**

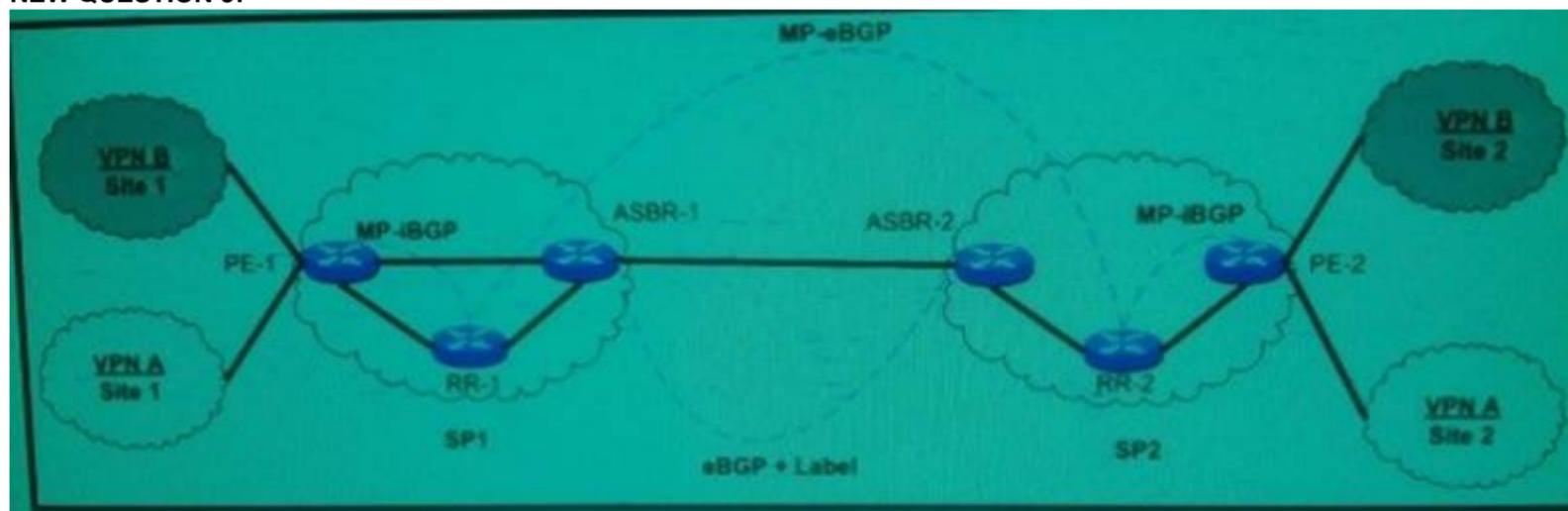
**NEW QUESTION 36**

What is one of the functions of a LISP ingress tunnel router?

- A. Ability to integrity-check LISP site registration messages using a SHA2-based HMAC algorithm
- B. Responsible for finding EID-to-RLOC mappings for all traffic destined for LISP-capable sites
- C. Accept encapsulation Map-request messages, decapsulate them to the MS responsible for the ETR authoritative for the requested EIDs
- D. Allows EIDs and RLOCs to communicate in a LISP site that contains EIDs in one address family and RLOCs in a different address family

**Answer: B**

**NEW QUESTION 37**



Refer to the exhibit. A service provider engineer has a requirement to configure an Inter-AS L3VPN with a maximum of one LSP between PE-1 and PE-2. Which two configurations are required to accomplish this goal? (Choose two)

- A. next-hop-self on ASBR's
- B. redistribute bgp on ASBR's
- C. next-hop-self on RR's
- D. next-hop-unchanged on RR's

- E. ip route on ASBR's
- F. redistribute connected on ASBR's
- G. next-hop-unchanged on ASBR's

**Answer:** BD

**NEW QUESTION 42**

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

- A. The LSP is established directionally through only one signaling messages
- B. The control channel can terminate on different nodes types that the bearer channels span
- C. OXCs manipulate wavelengths that bear the label implicitly
- D. Two lights 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 46**

Which protocol provides fast link failure detection for all type of encapsulation?

- A. Prefix Independent Convergence
- B. Carrier delay
- C. Non stop forwarding
- D. Bidirectional forwarding detection

**Answer:** D

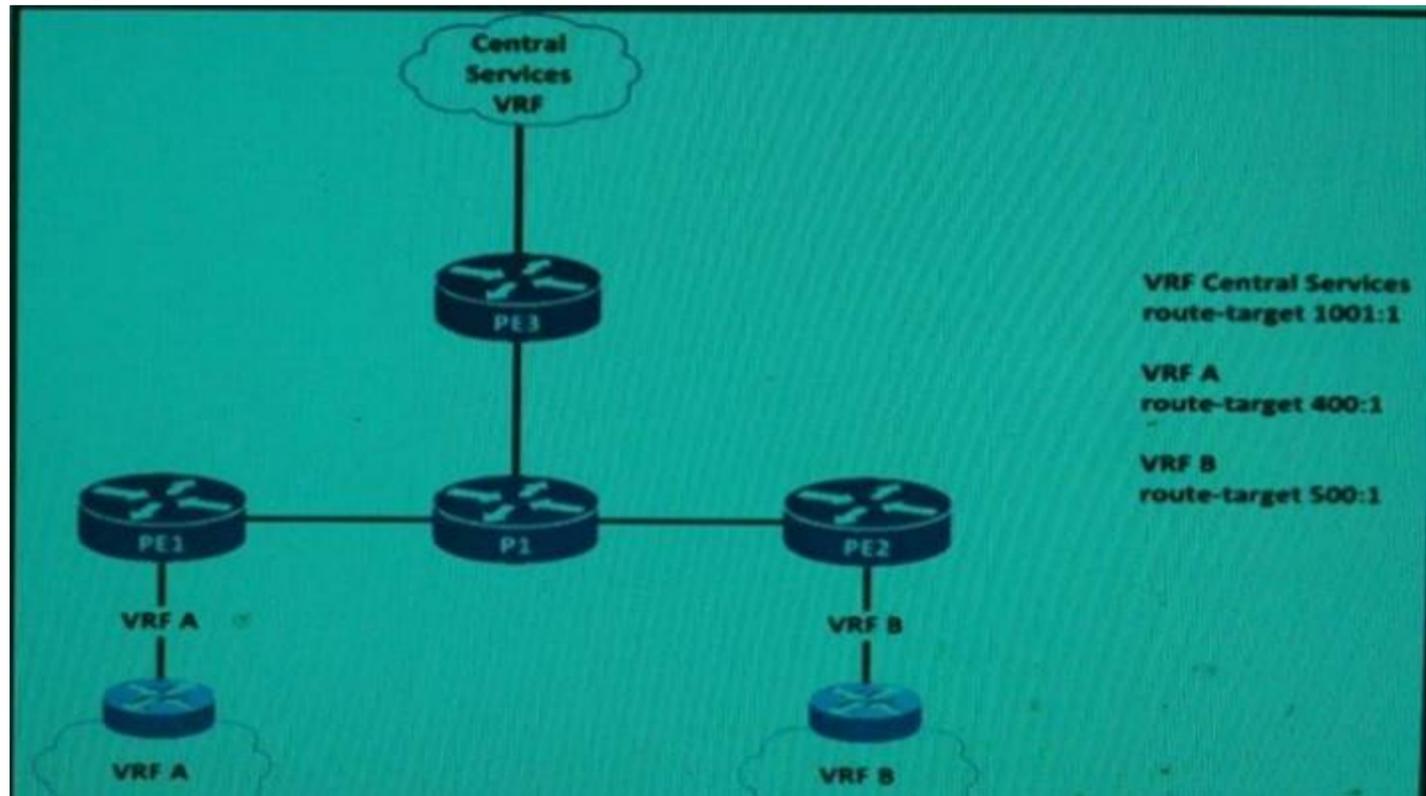
**NEW QUESTION 51**

Refer to the exhibit. Why is router 1 unable to ping 10.10.100.2 from vrf cust1?

- A. Because Multi-VRF support is not enabled
- B. Because address-family ipv4 is missing from the VRF statement
- C. Because of an incorrect interface configuration
- D. Because of a missing BGP configuration

**Answer:** B

**NEW QUESTION 55**



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 57**

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 61**

A service provider NOC engineer received numerous support tickets from their VPN customer. This customer are reporting packet loss between two PE routers. The NOC engineer created a VRF TEMP to run test between these two PE router and no error were reported. ECMP links are used between P and PE routers. which test can quickly identify the core link that is causing the problem.

- A. an MPLS traceroute with multipath option between the PE`s loopback
- B. an extended traceroute with multipath option between PE`s loopback
- C. a VRF traceroute between customers1s CE router and service provider remote PE router
- D. a VRF ping between customer`s CE router and service provider remote PE router
- E. an extended ping with sweep option between the PE`s Loopbacks
- F. an MPLS ping with sweep option between the PE`s Loopbacks

**Answer: A**

**NEW QUESTION 65**

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 66**

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 70**

Two routers that are running MPLS and LDP have multiple links that than connect them to each other. An engineer wants to ensure that the label bindings are not flushed from the LIB if one of the links fails. Which configuration meets this requirement?

- A. the mpls ldp neighbor targeted command
- B. the mpls ip command on a Cisco MPLS TE tunnel
- C. the mpls ldp autoconfig command
- D. the mpls ldp session protection command

**Answer: D**

**NEW QUESTION 72**

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 75**

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 80**

In the MVPN profile 3 (Rosen GRE with BGP-AS), which information is included inside of the opaque value?

- A. Type 2- Root Address: VPN-ID; 0-n
- B. Type 1-source-PE: Global-ID
- C. RD:S,G
- D. Not applicable for this profile

**Answer: D**

**NEW QUESTION 84**

Which three OSPF pieces of information must be between routers in order to establish an ospf neighborship? (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 85**

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 from the connecting provider in order to learn route targets on each ASBR
- D. Ensure that LDP is configured between each ASBR for label exchange on all VRFs

**Answer: B**

**NEW QUESTION 87**

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 90**

Refer to the exhibit, Which feature does this OSPF database entry refer to?

- A. Intra-autonomous traffic engineer
- B. Inter-autonomous traffic engineer
- C. Segment routing
- D. mVPN
- E. LFA repair path attributes

**Answer: A**

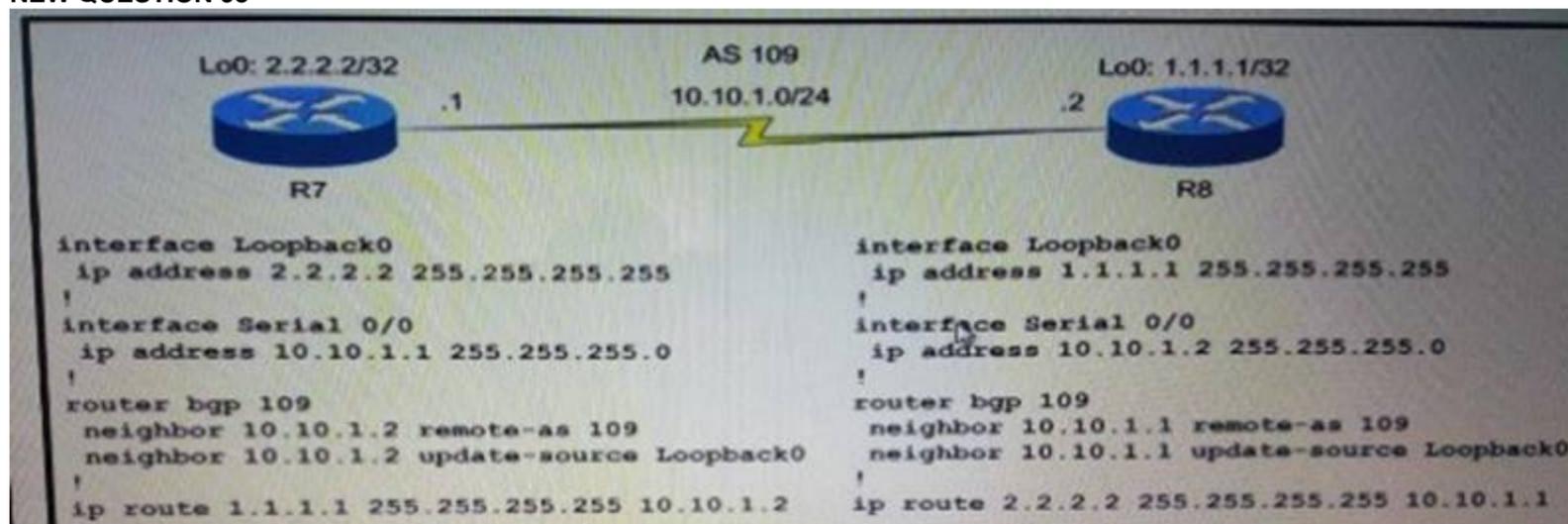
**NEW QUESTION 95**

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 98**



Refer to the exhibit R7 and R8 unable to create IBGP session. What is the source of the Issue?

- A. misconfigured IP addresses in the neighbor command R7 and R8
- B. A BGP AS number misconfigured on R8
- C. an incorrect loopback address on R7
- D. an incorrect route on R7 and R8

Answer: A

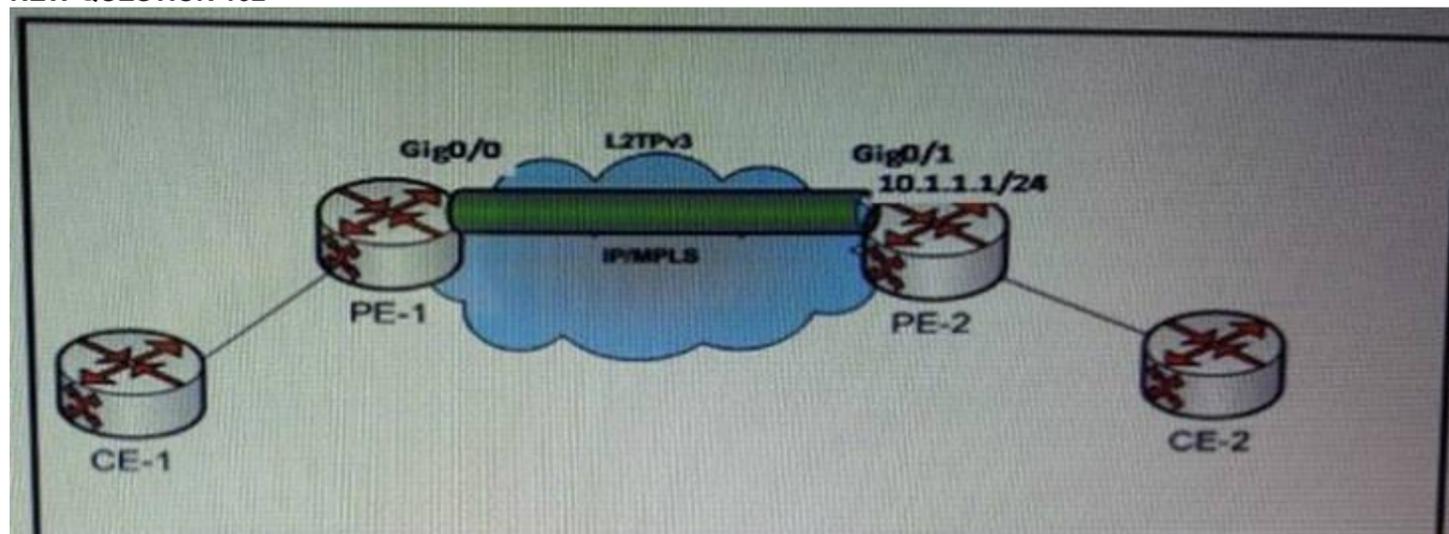
**NEW QUESTION 101**

Refer to the exhibit. All links have same bandwidth configured AS 4, AS 4 and AS 7 run OSPF as IGP using default metric values. Which two statements are correct in regards to MSDP SA messages received by R5 located in AS 7? ( Choose two)

- A. All MSDP SA messages from R1 and R2 via R4 will be dropped
- B. All MSDP SA messages from R1 and R2 via R3 will be accepted
- C. All MSDP SA messages from R1 and R2 via R3 will be dropped
- D. All MSDP SA messages from R1 and R2 via R3 will be dropped and all MSDP SA messages from R2 via R4 will be dropped
- E. All MSDP SA messages from R1 and R2 via R4 will be accepted
- F. All MSDP SA messages from R1 via R3 will be accepted and all MSDP SA messages from R2 Via R4 will be accepted

Answer: AB

**NEW QUESTION 102**

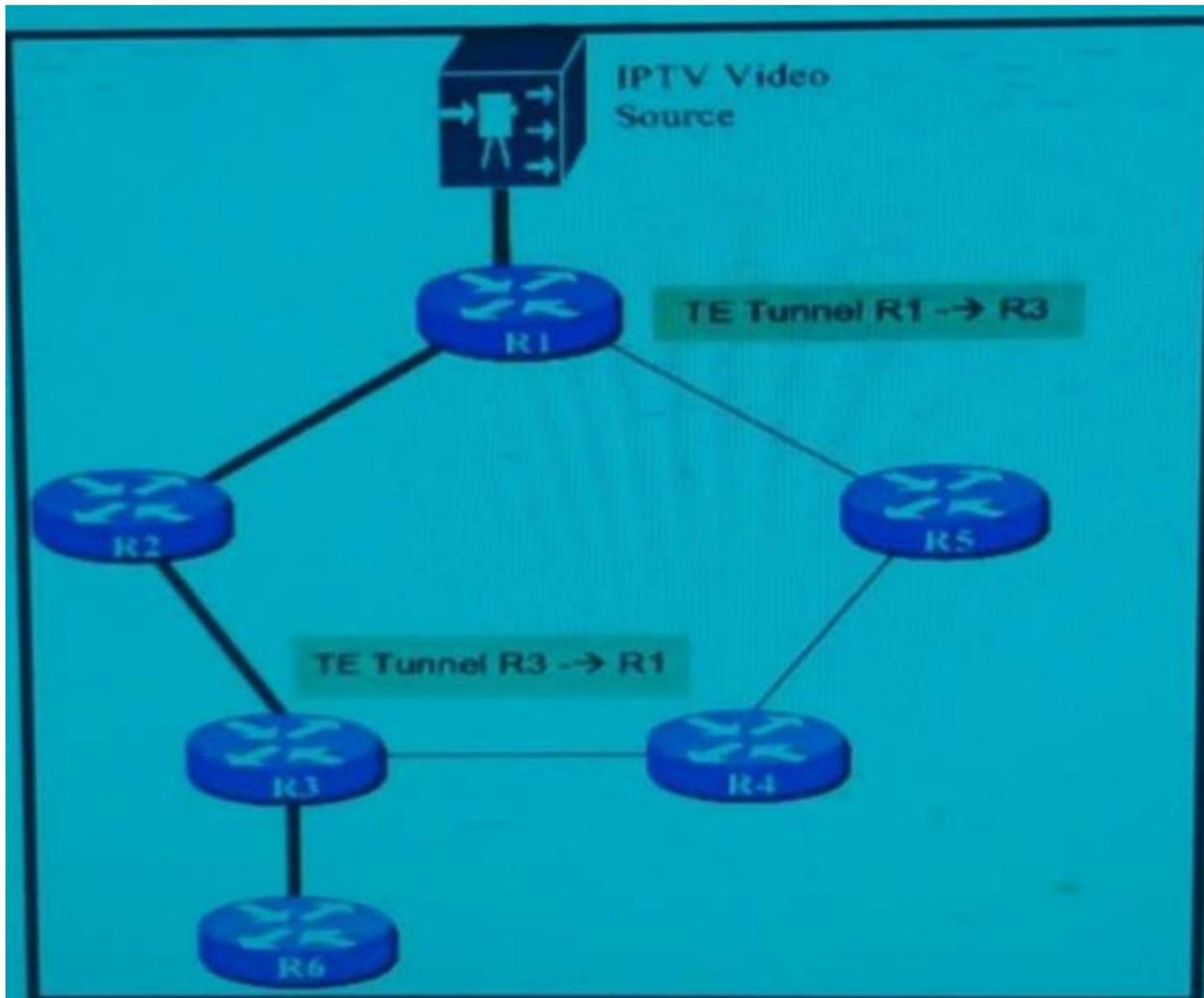


Refer to the exhibit. The communication between CE-1 and CE-2 is not operational. An operations engineer notice that the L2TP connection failed to establish because inbound ip access list had been applied on the PE-2 Gig0/1 interface. Which ACL entry must be added to control connection successfully established ?

- A. permit udp host 10.1.1.1 any eq 1701
- B. permit tcp any eq 1701 host 10.1.1.1
- C. permit udp any host 10.1.1.1 eq 1701
- D. permit tcp host 10.1.1.1 eq 1701 any

Answer: C

**NEW QUESTION 107**



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.

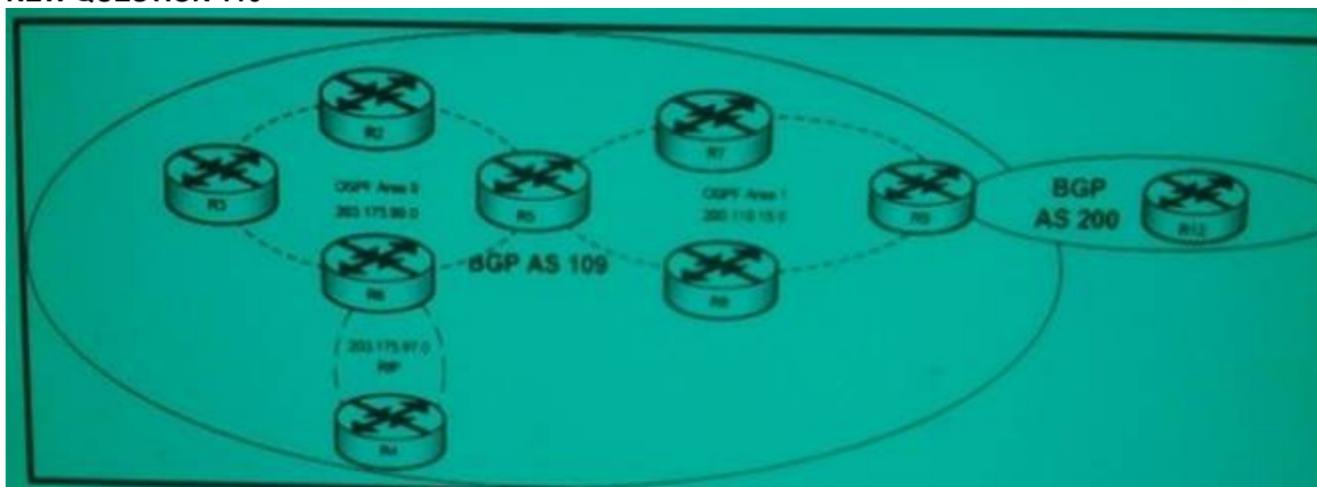
After the MPLS TE tunnels are deployed, the multicast traffic stops working

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 110**



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 113**

Which are two benefits of using segment routing over RSVP-TE for traffic engineering? (Choose two)

- A. Segment routing traffic engineering tunnels always follow the low-latency path
- B. ECMP-aware traffic engineering is natively supported by segment routing
- C. Per-flow state is present only at the ingress node to the Segment routing-enabled network
- D. Per-flow state is present at the ingress and egress node to the segment routing-enabled network
- E. Per-flow state is maintained on all nodes of the segment routing-enabled network

Answer: BC

**NEW QUESTION 115**

```

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 116**

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

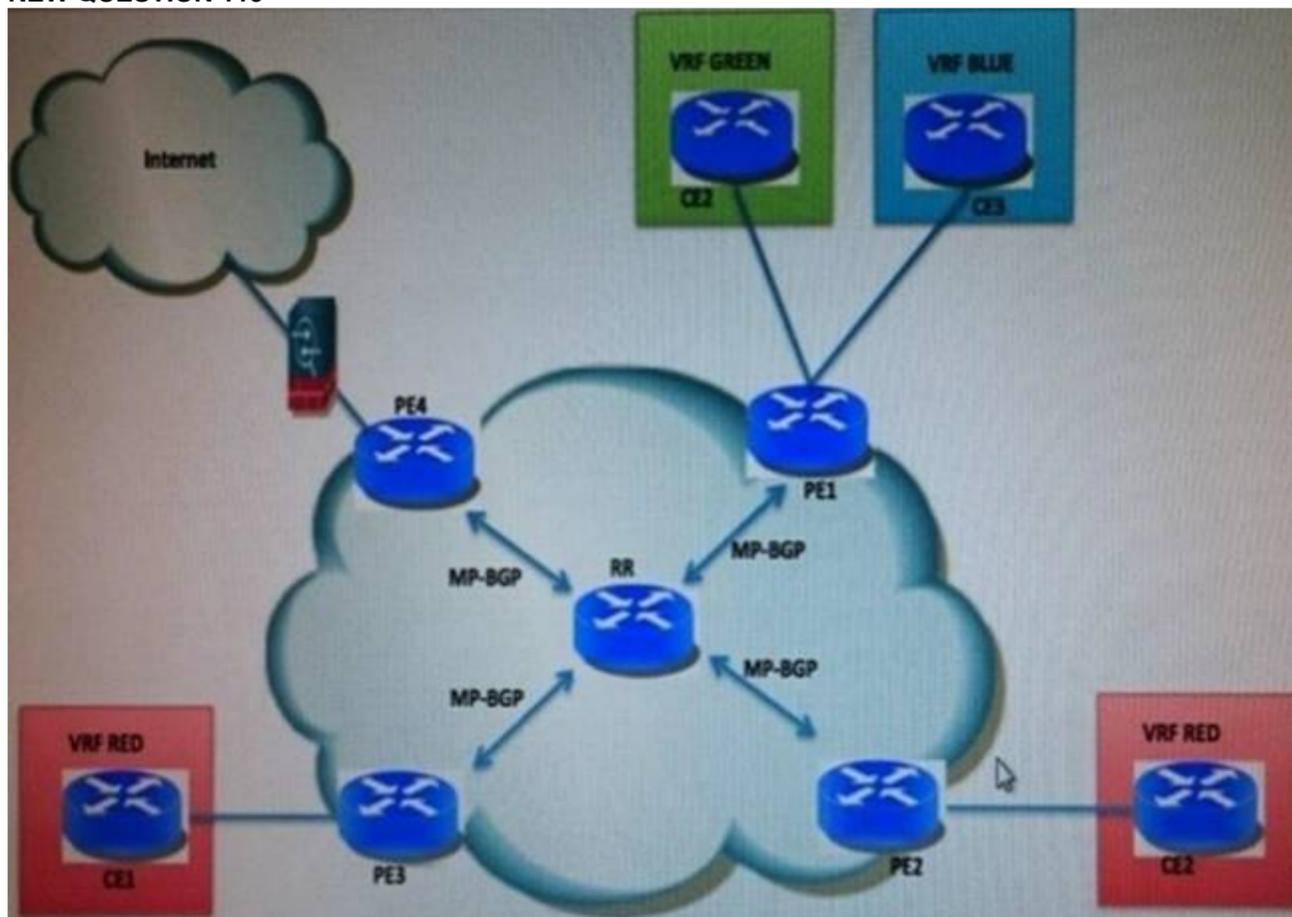
**NEW QUESTION 118**

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 119**



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 124**

Which statement about LISP proxy ETR is true?

- A. A LISP site with IPv4-only RLOC connectivity can send IPv6 EIDs within an IPv4 LISP header across the IPv4 internet
- B. A LISP PETR implements ITR mapping database lookup and LISP encapsulation functions on behalf of LISP-capable sites only
- C. A LISP site with IPv6-only RLOC can communicate to non-LISP IPv6 interface users across IPv4 Internet, however , IPv4-only RLOC cannot communicate to non-LISP IPv4 Internet users across IPv6 Internet
- D. PETR supports transport of LISP-only traffic from one address to LISP sites in the same address family

Answer: A

**NEW QUESTION 126**

SNMPv3 provides which three security features?(Choose three)

- A. DES 56-bit encryption
- B. Encrypted user password
- C. Private community information that is exchanged out-of-band
- D. Device hostname that is authenticated via AES algorithm
- E. Message integrity
- F. Authentication that is based on MD5 or SHA algorithms

Answer: AEF

**NEW QUESTION 128**

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

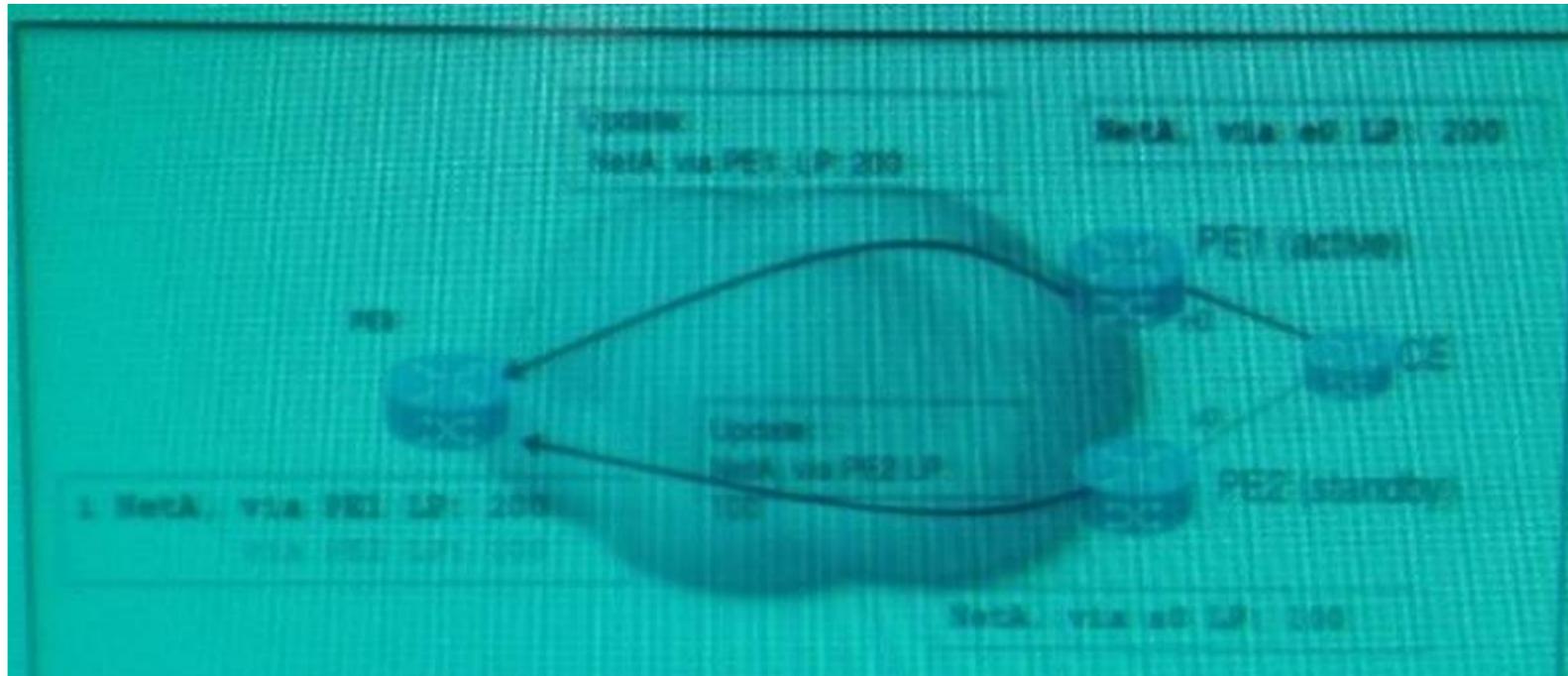
**NEW QUESTION 130**

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 135**



Refer to the exhibit. Which BGP configuration must be applied to make PE3 use both BGP entries in the Cisco Express Forwarding table?

- A. On PE1, apply next-hop-self on both PE2 and PE3 neighbors configuration
- B. On the CE, apply bgp add-path on both PE1 and PE2 neighbors configuration
- C. On PE1, apply route-reflect-client on both PE2 and PE3 neighbors configuration
- D. On PE2, apply bgp advertise-best-external on the PE3 neighbor configuration

Answer: D

**NEW QUESTION 137**

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 adjacency 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 140**

```

ipv4 access-list FILTER1 10 permit tcp 10.10.10.0/24 any eq www
ipv4 access-list FILTER2 10 permit tcp 10.10.10.0/24 any eq smtp
!
class-map match-all TEST1
 match access-group ipv4 FILTER1
end-class-map
class-map match-all TEST2
 match access-group ipv4 FILTER2
end-class-map
policy-map POL1
 class TEST1
  bandwidth percent 10
  !
 class TEST2
  priority level 1
  police rate percent 10
  !
 class class-default
  !
end-policy-map

```

Refer to the exhibit, An engineer is asked to troubleshoot packet drops inside a network which option is true?

- A. HTTP traffic originated by the 10.10.10.0/24 subnet uses up to 10% of the interface bandwidth
- B. However, if no congestion is present, no more bandwidth is allocated to HTTP traffic
- C. SMTP traffic originated by the 10.10.10.0/24 subnet uses up to 10% of the bandwidth, however, if no congestion is present, more bandwidth is allocated to SMTP traffic
- D. SMTP traffic originated by the 10.10.10.0/24 subnet uses up to 10% of the bandwidth
- E. However, if no congestion is present, SMTP traffic above 10% of link bandwidth is dropped
- F. HTTP traffic originated by the 10.10.10.0/24 subnet uses up to 10% of the interface bandwidth
- G. However, if congestion is present, less bandwidth is allocated to HTTP traffic

**Answer: C**

**NEW QUESTION 141**

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 145**

A service provider is working to develop an evolving security technique toolset in regards to the increasing amount of attacks. In which scenario Backscatter Trace back solution is recommended?

- A. Rouge DNS/DHCP Servers
- B. Distribution Denial of service
- C. Ping of death
- D. IP Spoofing
- E. Network Attack TCP/UDP Scan

**Answer: B**

**NEW QUESTION 149**

In an Internet scenario with noncongruent unicast and multicast topologies, which protocol a scalable policy for performing multicast RPF checks?

- A. MADCAP
- B. MSDP
- C. MBGP
- D. PGM

**Answer: C**

**NEW QUESTION 152**

A network has a single exit and is using a default route An operator is worried about denial of service at the network border Which unicastRPF check mode must the operator apply at the border for optimal protection?

- A. loose mode with allow self ping
- B. loose mode
- C. strict mode with allow-self-ping
- D. strict mode with allow -default option
- E. strict mode

**Answer:** E

**NEW QUESTION 154**

For the Cisco ASR 1000 Series, which module provides the physical and electrical terminal for the shared port

- A. SPA
- B. RP
- C. ESP
- D. SIP

**Answer:** A

**NEW QUESTION 159**

Which protocol supports exporting of fields extracted from BAR?

- A. IPFIX
- B. SNMP
- C. Syslog
- D. NetFlow
- E. RSPAN

**Answer:** D

**NEW QUESTION 163**

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 167**

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 170**

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 175**

An engineer is deploying SSHv2-only in-band access. Which three options reflect the minimum configuration to enable the SSHv2 services on Cisco routers? (Choose three)

- A. Define a domain name for the device
- B. Create crypto keys by using the crypto key generate dsa command
- C. Configure a key modules in the global configuration
- D. Add router hostname on DNS services
- E. Define a hostname for the device
- F. Create an access list that defines authorized hosts for SSH

**Answer:** ABE

**NEW QUESTION 179**

A NOC engineer is troubleshooting an issue on a customer's server that is connected to a switch port in the data center. The engineer has a packet analyzer that is connected to a test port in the NOC. A core network exists between the NOC and the data center

Which two configuration steps should the NOC engineer apply for the port in the NOC and the customer's switch port in the data center? (Choose Two)

- A. Configure ERSPAN between the NOC test port and customer's switch port
- B. Enable an MPLS pseudowire that is destined to the NOC and used by the mirrored customer traffic to cross network
- C. Enable GRE encapsulation that is destined to the NOC and supply by the mirrored customer traffic to cross the network
- D. Enable an MPLS TE tunnel that is destined to the NOC and used by the mirrored customer traffic to cross the core network
- E. Configure RSPAN between the NOC test port and customer's switch port

**Answer:** AC

**NEW QUESTION 181**

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 184**

A Layer 3 VPN customer opened a case that reports connectivity loss with remote sites. An operations engineer realized this connectivity loss happened after the LDP label filtering was applied. What is the root cause of this issue?

- A. Labels were not allocated for the PE, P and RR physical interfaces
- B. Labels were not allocated for the PE loopbacks
- C. Labels were not allocated for the CE loopback and physical interfaces
- D. Labels were not allocated for the P loopbacks
- E. Labels were not allocated for the PE, P, and RR loopbacks
- F. Labels were not allocated for the P and PE physical interfaces

**Answer:** B

**NEW QUESTION 186**

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 recording 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 191**

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 193**

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 195**

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 196**

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 201**

```

PE2

ip explicit-path name PATH1
  next-address 10.0.0.1
  next-address 10.0.0.2

interface Tunnel0
  ip unnumbered Loopback0
  tunnel mode mpls traffic-eng
  tunnel destination 192.168.1.1
  tunnel mpls traffic-eng autoroute destination
  tunnel mpls traffic-eng path-option 1 explicit name PATH1
  
```

Refer to the exhibit. A service provider is running MPLS TE across its network. IS-IS is deployed as the IGP for the ISP network. The MPLS TE tunnel 0 configured on PE2 is seen in an operational down state. PE2 is a level-1 router and the destination 192.168.1.1 is located in the IS-IS level-2 area. Which action is required to bring the MPLS TE tunnel 0 to up state?

- A. Configure the next-address entries as loose paths in the explicit-path.
- B. Change the autoroute option from destination to announce.
- C. Configure a bandwidth value for the tunnel.
- D. Configure an IPv4 address for the Tunnel 0.
- E. Add a dynamic path option to the tunnel.

**Answer:** A

**NEW QUESTION 206**

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 208**

In the Dual Stack lite solution, what is the function of the B4 component?

- A. It acts as an endpoint for the IPv6 in IPv4 encapsulation and forwarding
- B. It decapsulates the tunneled IPv4 packets, translate the network address, and routes to the IPv4 network
- C. It encapsulates the customer IPv4 packets using IPv6 tunnel and second to the AFTR
- D. It reverses network address translated of the eipv4 packets coming from the internet and it sends the resultant IPv4 packets to AFTR

**Answer:** C

**NEW QUESTION 209**

IPv6 multicast is enabled in a VPLS domain. An operations engineer must reduce the multicast flooding in this VPLS domain. Which feature constrains IPv6 traffic at Layer 2 by configuring Layer 2 ports dynamically to forward IPv6 multicast traffic only to those ports that want to receive it?

- A. IGMP snooping
- B. MLD snooping
- C. MLD querier
- D. IGMP version 3
- E. MLD version 2

Answer: B

**NEW QUESTION 212**

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

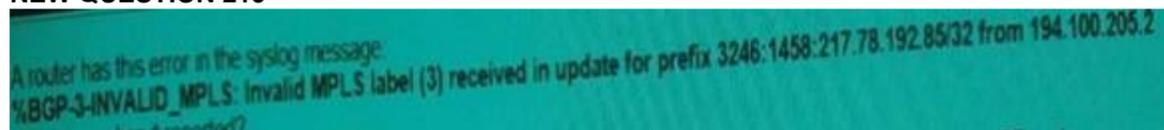
**NEW QUESTION 214**

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 219**



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 222**

Due to recent acquisitions, a company's MPLS infrastructure is growing very quickly. Concerns arise about labeling each and every IP address on the P router. Which command would significantly reduce the label allocations without compromising LDP functionalities?

- A. ip prefix-list List1 deny prefix/prefix\_length mplsldp labelallocate global prefix-list List1
- B. mplsldp labelallocate global host-routes
- C. access-list 1 permit subnet wildcard mplsldp neighbor neighbor\_ip labels accept 3
- D. mplsldp password required for 10 access-list 10 permit host\_ip\_1 access-list 10 permit host\_ip\_2 access-list 10 permit host\_ip\_n

Answer: A

**NEW QUESTION 223**

In a L2VPN service, customer CE sends frames to PE1 using a CoS making value of 3. However , the remote CE receives those frames from PE2 with a CoS marking value of 0. Which description of this behavior is true?

- A. Egress PE2 is not configured with an outbound policy-map facing CE2 to preserve CoS marking
- B. Egress PE2 is marking EXP 0 upon label imposition
- C. Egress PE2 is not configured with mpls Ldp explicit-null command
- D. Ingress PE1 is remarking the CoS frame received from CE1 with valuye of 0

Answer: D

**NEW QUESTION 227**

Which two components are shared across secure domain routers? (Choose two)

- A. Fabric
- B. CPU
- C. Memory
- D. Fans
- E. Forwarding engine

Answer: AD

**NEW QUESTION 229**

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 231**

Which statement is true about Cisco IOS XR commit command?

- A. The commit force command merges the target configuration with the running configuration and commits only valid changes
- B. The commit replace command applies all the changes of the file configuration that were loaded previousl
- C. The final configuration applied is the merged configuration between the previous running configuration and the file configuration loaded
- D. The commit confirmed 30 command applies the changes, however it initiates a configuration rollback after 30 seconds
- E. The rollback configuration to ID08252015 command and commit command completely replaces the running configuration with the target configuration specified in the file name as ID08252015

**Answer:** C

**NEW QUESTION 236**

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 237**

A service provider must avoid packet loss when an IGP adjacency is established before the LDP label exchange completes between the peers on that link. Which feature must be implemented that fulfills this requirement?

- A. LDP Session Protection
- B. IP-FRR
- C. MPLS LDP-IGP Sync
- D. MPLS TE Metric
- E. MPLS TE Fast Reroute

**Answer:** C

**NEW QUESTION 242**

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 243**

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 open source cloud computing platform uses the neutron project as a networking as a service between devices like cisco nexus, cisco APIC cisco CSR 1000v and cisco UCS?

- A. Ansible
- B. Openstack
- C. Cisco UCS director

D. Opendaylight

**Answer: B**

**NEW QUESTION 247**

Which two MVPN profile use either PIM or BGP-AD to advertise the Data-MDT? (Choose two)

- A. Profile 0 : Rosen GRE
- B. Profile 5 : MS-PMSI (Partition) MLDP P2MP with BGP-AD
- C. Profile 3 : Rosen GRE with BGP-AD
- D. Profile 4 : MS-PMSI (Partition) MLDP P2MP with BGP-AD
- E. Profile 9 : Rosen MLDP with BGP-AD
- F. Profile 1 : Rosen MLDP

**Answer: CE**

**NEW QUESTION 250**

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 255**

```

PE1# show mpls forwarding-table 100.1.1.1 detail
Local   Outgoing  Prefix          Bytes Label  Outgoing  Next Hop
Label   Label     or Tunnel Id    Switched     interface
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 260**

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 264**

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 266**

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:** AB

**NEW QUESTION 267**

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 270**

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 274**

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

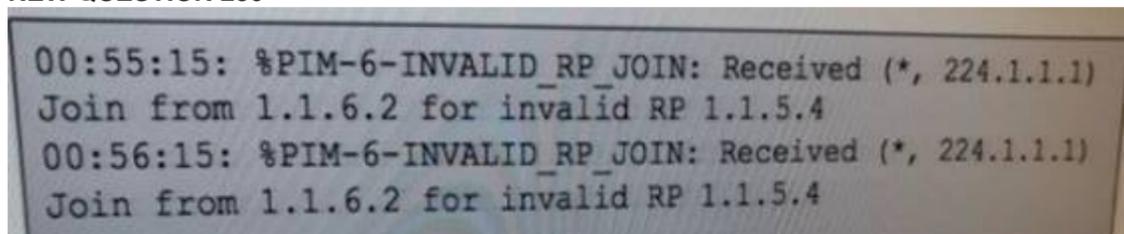
**NEW QUESTION 277**

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 280**



Refer to the exhibit. A router CE\_RP is configured as a rendezvous point in an IPv4 multicast domain. What is the root cause of this issue?

- A. A PIM neighbor is sending a PIMv6 message to CE\_RP, however IPv6 multicast is not enabled on this router
- B. The multicast application from the 1.1.5.4 source is using a reserved IPv4 multicast address
- C. The PIM adjacency between CE\_RP and the downstream router is down
- D. A downstream PIM router sent a join message, which CE\_RP does not want to accept

**Answer:** D

**NEW QUESTION 285**

Why would an engineer use the load rollback command instead of rollback command?

- A. to revert a change a subsequent change is made
- B. to revert changes to admin mode configuration
- C. to revert commits with IDs 10000000005 and 10000000007 simultaneously
- D. to revert changes to RPL objects

**Answer: B**

**NEW QUESTION 290**

An engineer is connecting a new 10-Gbps Ethernet link. Which type of transceiver must the Engineer purchase that is the current industry standard?

- A. GBIC
- B. XFP
- C. X2
- D. SFP

**Answer: B**

**NEW QUESTION 295**

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 form the EFP trunk to from individual EFPs
- E. It supports only static EFPs that are user-configurable

**Answer: CD**

**NEW QUESTION 300**

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 303**

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 306**

Which timing over packet solution provides only accurate frequency synchronization, but does not provide time/phase synchronization?

- A. Timing over IP connection and transfer of clock BOF
- B. Precision time protocol
- C. Network time protocol
- D. Synchronous Ethernet

**Answer: D**

**NEW QUESTION 307**

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 310**

```
PE1# show mpls forwarding-table 100.1.1.1 detail
Local   Outgoing  Prefix      Bytes Label  Outgoing  Next Hop
Label   Label     or Tunnel Id Switched      interface  address
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 GogabitEthernet 0/0/ interface.

**Answer:** E

**NEW QUESTION 312**

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 313**

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
I2vpn	Step 4
neighbor IP address pw-id value	Step 5
p2p name	Step 6

**Answer:**

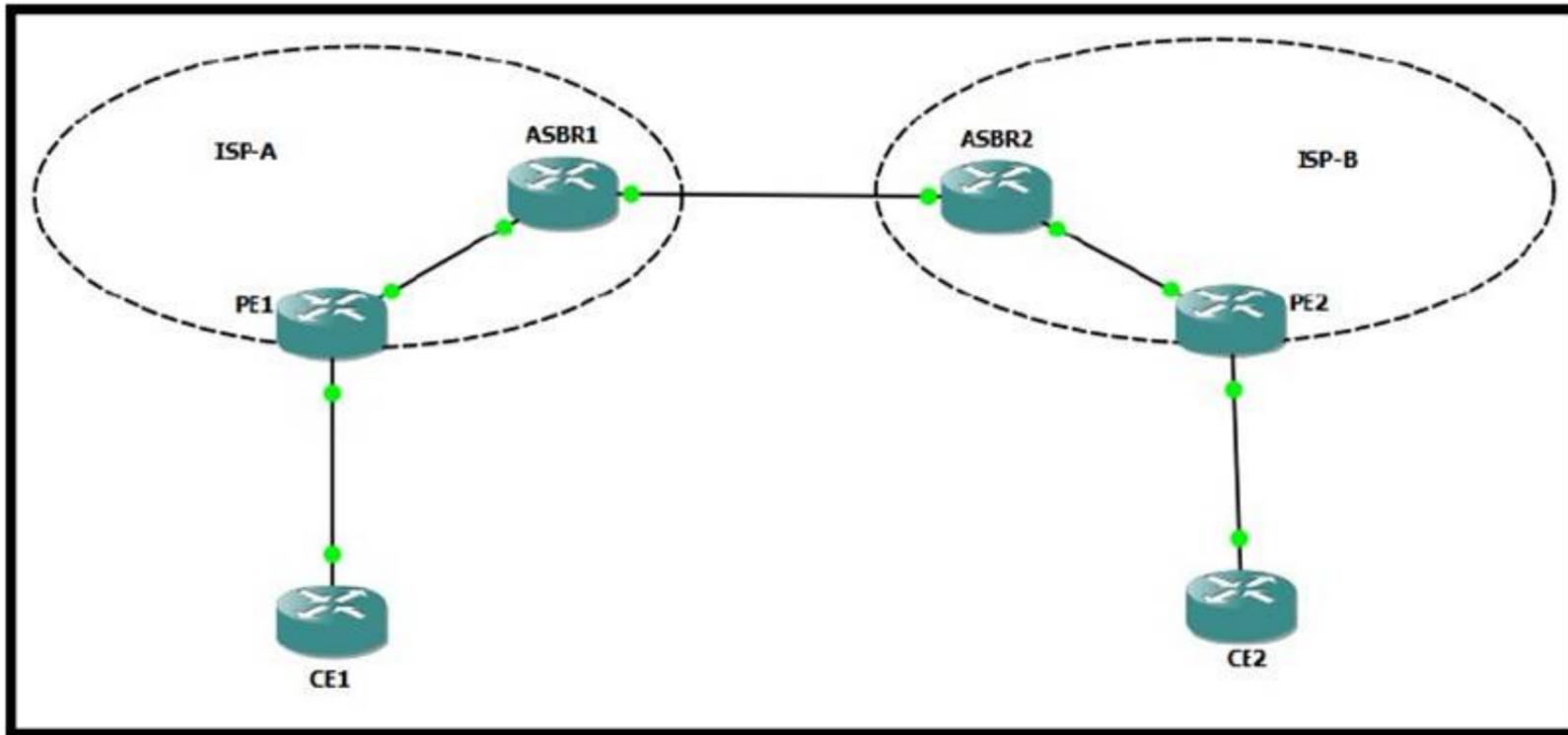
**Explanation:**

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	I2vpn
mpls static label	xconnect group name
xconnect group name	p2p name
I2vpn	interface name
neighbor IP address pw-id value	neighbor IP address pw-id value
p2p name	mpls static label

**NEW QUESTION 315**

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 319**

DRAG DROP

Drag and drop the computing model characteristics from the left onto the corresponding model on the right

**Answer:**

**Explanation:**

**NEW QUESTION 322**

DRAG DROP

Drag and drop each MPLS TE component from the left onto its correct description on the right

RSVP PATH	signals downstream that the tunnel is being removed
RSVP RESV	confirms that the resources are available along the LSP
RSVP PATHERR	signals upstream that resources are not available
RSVP PATHTEAR	is used to signal the future TE LSP at each MPLS node

**Answer:**

**Explanation:**

RSVP PATH	RSVP PATHTEAR
RSVP RESV	RSVP RESV
RSVP PATHERR	RSVP PATHERR
RSVP PATHTEAR	RSVP PATH

**NEW QUESTION 326**

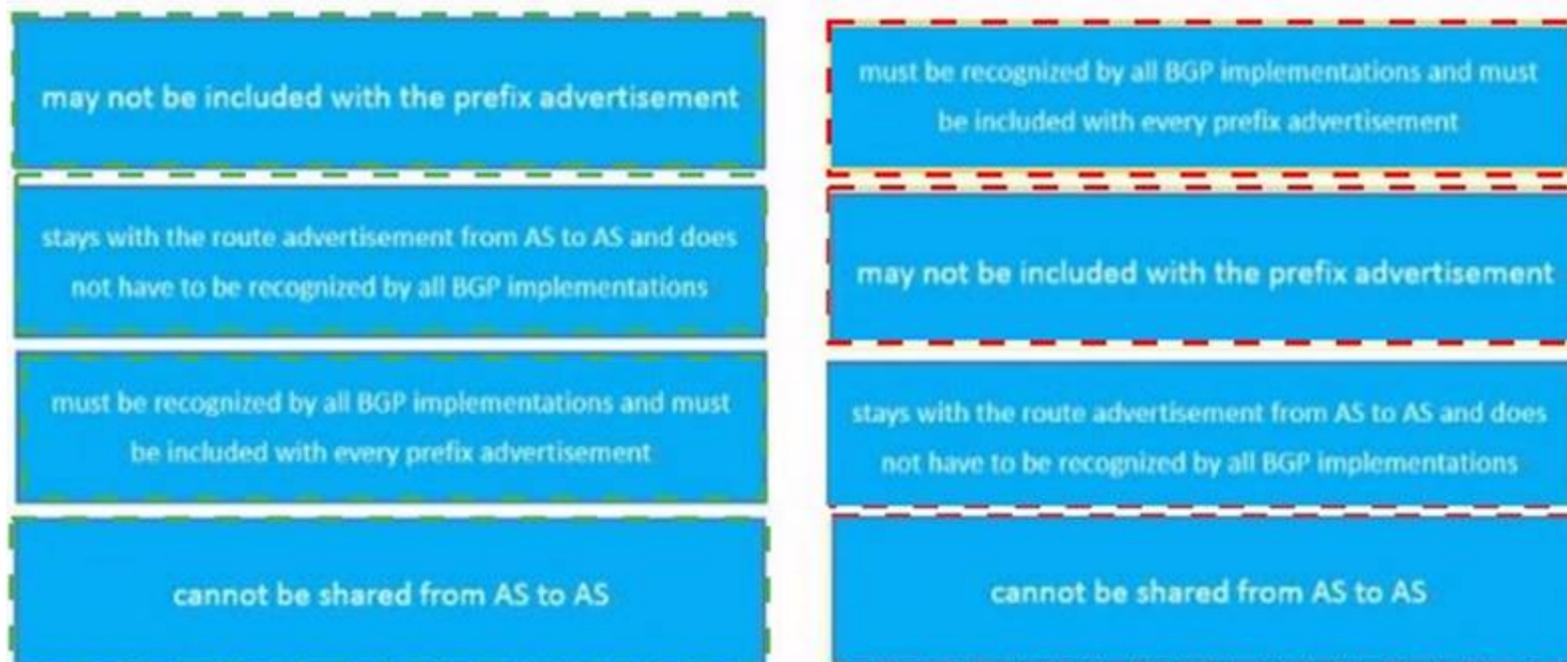
DRAG DROP

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:**



**NEW QUESTION 329**

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 332**

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 334**

Refer to the exhibit.

```

R2#show mpls ldp bindings
tib entry: 1.1.1.1/32, rev 11
  remote binding: tsr: 1.1.1.1:0, tag: imp-null
tib entry: 2.2.2.2/32, rev 12
  remote binding: tsr: 1.1.1.1:0, tag: 16
tib entry: 3.3.3.3/32, rev 13
  remote binding: tsr: 1.1.1.1:0, tag: 17
tib entry: 10.10.12.0/24, rev 14
  remote binding: tsr: 1.1.1.1:0, tag: imp-null
tib entry: 10.10.13.0/24, rev 15
  remote binding: tsr: 1.1.1.1:0, tag: imp-null

R2#show mpls forwarding-table
Local   Outgoing   Prefix          Bytes tag  Outgoing     Next Hop
tag     tag or VC  or Tunnel Id   switched  interface
  
```

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 338**

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 341**

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 344**

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 348**

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 351**

```

Label          16046          16045
Group ID       0x1080100      0x6000180
Interface      GigabitEthernet0/0/0/2.201  GigabitEthernet0/1/0/3.201
MTU            2000          1986
Control word   disabled      disabled
PW type        Ethernet     Ethernet
VCCV CV type   0x2           0x2
                (LSP ping verification)  (LSP ping verification)
VCCV CC type   0x6           0x6
                (router alert label)    (router alert label)
                (TTL expiry)           (TTL expiry)
-----
Incoming Status (PW Status TLV):
  Status code: 0x0 (Up) in Notification message
Outgoing Status (PW Status TLV):
  Status code: 0x0 (Up) in Notification message
MIB cpwVcIndex: 4294836225
Create time: 18/04/2013 16:20:35 (00:00:37 ago)
Last time status changed: 18/04/2013 16:20:43 (00:00:29 ago)
Error: MTU mismatched
Statistics:
  packets: received 0, sent 0
  bytes: received 0, sent 0
    
```

Refer to the exhibit Which PW type is negotiated?

- A. Type 1
- B. Type 2
- C. Type 3
- D. Type 4
- E. Type 5
- F. Type 6

**Answer: E**

**NEW QUESTION 352**

What is the maximum capacity of a single Cisco CRS-1?

- A. 64 Tb/s
- B. 78 Tb/s
- C. 92 Tb/s
- D. 106 Tb/s
- E. 128 Tb/s

**Answer: C**

**NEW QUESTION 353**

In which way does the DS-Lite IPv6 transition 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 355**



Refer to the Exhibit, R1 and R5 router are not directly connected loopback 0 is configured as LDP router-id for both R1 and R5 router loopback IPV4 address are reachable between R1 and R5 router. The LDP session between R1 and R5 is not established. There is no access-list applied any router in the path between R1 and R5, which is the reason the LDP session is not working?

- A. The LDP ID must be the physical interface of the interface tunnel between the LDP neighbor
- B. R5 is not configured to accept targeted LDP sessions
- C. Targeted LDP works only for directly connected LDP neighbors
- D. LDP authentication is missing on both R1 and R5

**Answer: B**

**NEW QUESTION 356**

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 358**

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 360**

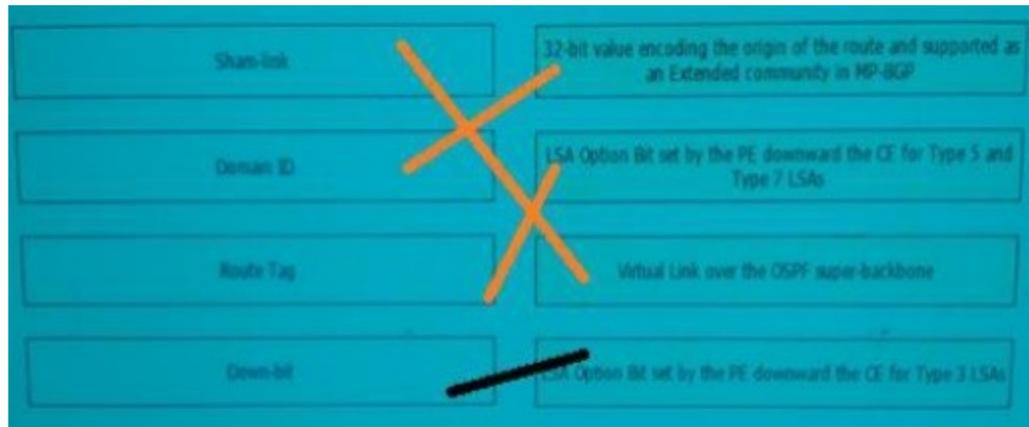
DRAG DROP

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 364**

DRAG DROP

Drag the MPLS label element on the left to the correct length on the right.

label value	1 bit
experimental use	3 bits
bottom of label stack	8 bits
TTL	20 bits

Answer:

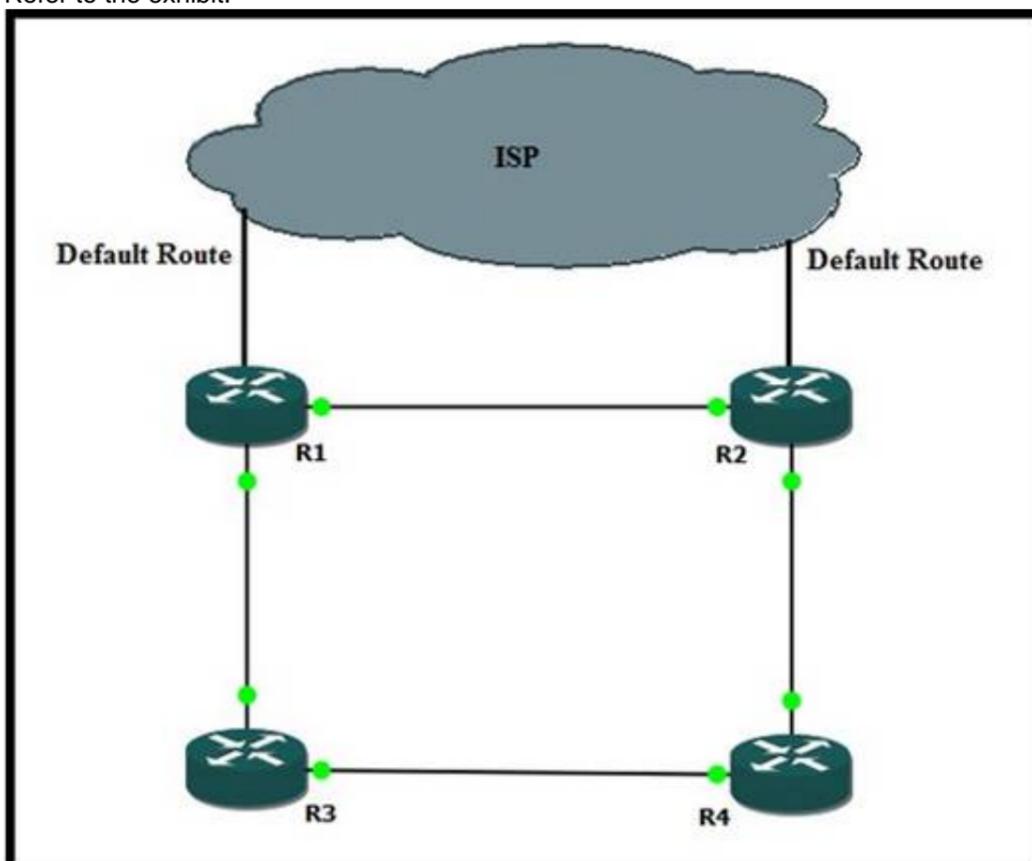
Explanation:

Drag the MPLS label element on the left to the correct length on the right.

label value	bottom of label stack
experimental use	experimental use
bottom of label stack	TTL
TTL	label value

**NEW QUESTION 365**

Refer to the exhibit.



R1 and R2 have a static default route that is configured to point toward the ISP. Both R1 and R2 routers redistribute the default route into OSPF. R2 is the primary gateway toward the ISP and R1 is the backup gateway. All link metrics are the same. Which two steps ensure that traffic to the ISP flows through R2 when the network works properly? (Choose two.)

- A. Modify the preference value of the default route on R1 so that it is less preferred than OSPF external routes.

- B. Modify the preference value of the default route on R2 so that it is less preferred than OSPF external routes.
- C. Redistribute the default route as a type 1 external route on R1 and a type 2 external route on R2.
- D. Redistribute the default route as a type 2 external route on R1 and a type 1 external route on R2.
- E. Redistribute the default route on R1 with a higher metric than the existing metric of the distributed default route on R2.

**Answer:** AD

**NEW QUESTION 367**

Which Cisco IOS XR security component can protect the route processor of the Cisco CRS router?

- A. Receive ACL
- B. Interface ACL
- C. Local Packet Transport Services
- D. Control Plane Policing

**Answer:** C

**NEW QUESTION 372**

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.

vfi name	Step 1
interface name	Step 2
bridge domain name	Step 3
bridge group name	Step 4
neighbor IP-address pw-id value	Step 5
I2vpn	Step 6

**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 377**

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

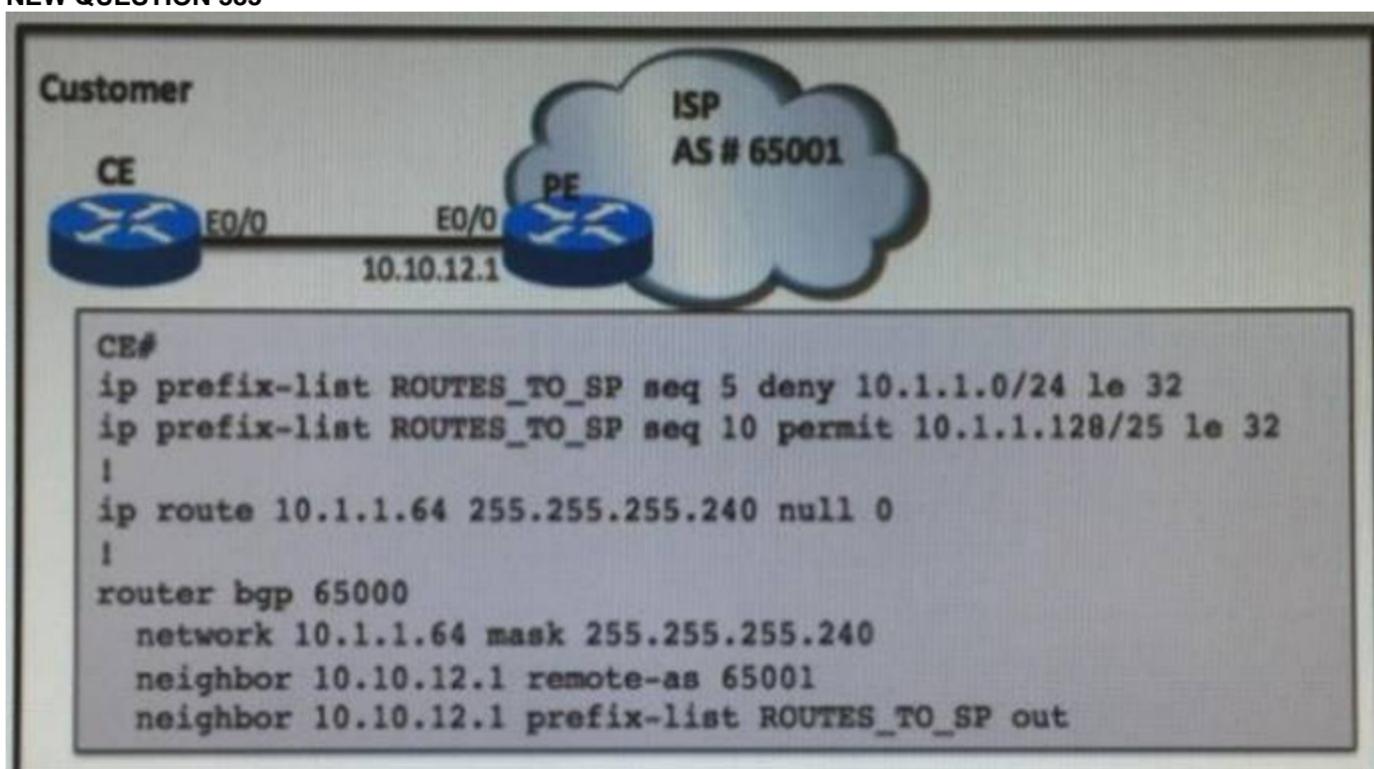
**NEW QUESTION 380**

In an OSPF domain, four routers have OSPF neighborship over a broadcast domain. What is the expected state after running the show ip OSPF neighbor command on the OSPF designated router?

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

**Answer:** C

**NEW QUESTION 383**



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 386**

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 391**

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

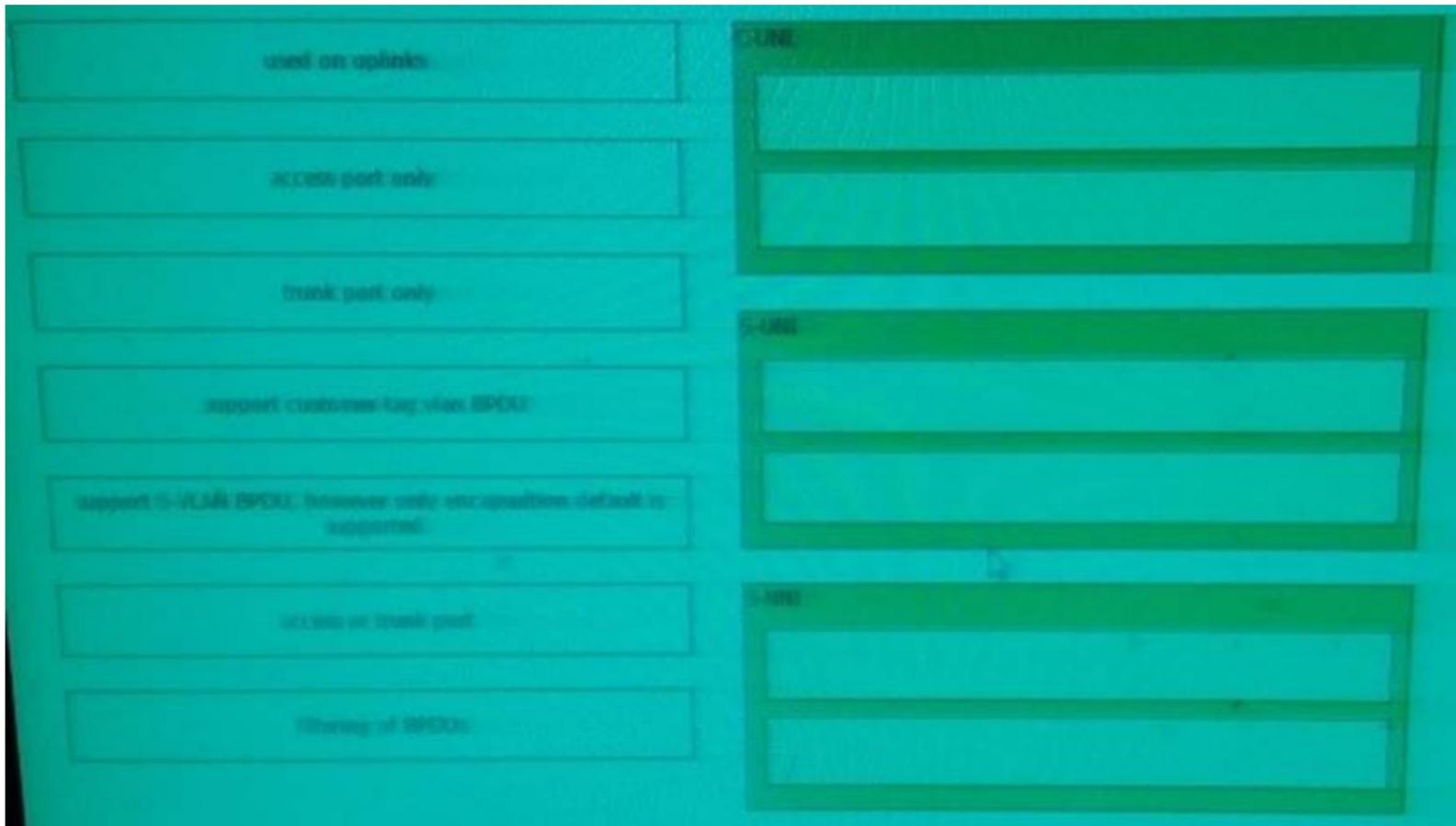
**Answer: A**

**NEW QUESTION 395**

DRAG DROP

Drag and drop the 802.1ad characteristics on the left onto the port type on the right.

- Not all
- options are used



**Answer:**

**Explanation:** C-UNI

Access or trunk port

Support customer-tag vlan BPDU

S-UNI

Access port only Filtering of BPDUs S-NNI

Trunk port only

Support S-Vlan BPDU, however only encapsulation default is supported

**NEW QUESTION 398**

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 402**

One requirement of MP-BGP is that the NLRI and next hop both should belong to same address family. Similarly, if the route is a VPN route with an RD, the next hop should also be of the same address family.

For VPNv6 routes with an associated RD value, what is the RD for the next hop?

- A. 16 because that is the global value for next hop RD.
- B. 0 RD value.
- C. Same as the RD for the VPN that is advertised.
- D. Not enough information is available to determine the value.

**Answer:** B

**NEW QUESTION 406**

Which three components are required to support ISSU? (Choose Three)

- A. Supported line cards.
- B. SSO and NSF working.
- C. Redundant router for failover.
- D. Images that are preloaded into the file system.
- E. Traffic that is moved to another device.
- F. Active and standby RPs.

**Answer:** ABF

**NEW QUESTION 411**

```
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 415**

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 418**

DRAG DROP

Drag and drop the subplot 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 422**

You applied this ACL to the interface and several people reported that they were unable to access the network.  
`ipv6 access-list webOnly permit tcp any 2001:DB8::/32 permit udp any 2001:DB8::/32 deny ipv6 any any`  
 Which answer explains why they were unable to access the network?

- A. The connections are stal
- B. The users must close and restart their applications.
- C. DNS queries and replies are not working.
- D. The ACL is blocking the operation of the ND process.
- E. DHCP requests are not reaching to the DHCP server.

**Answer: C**

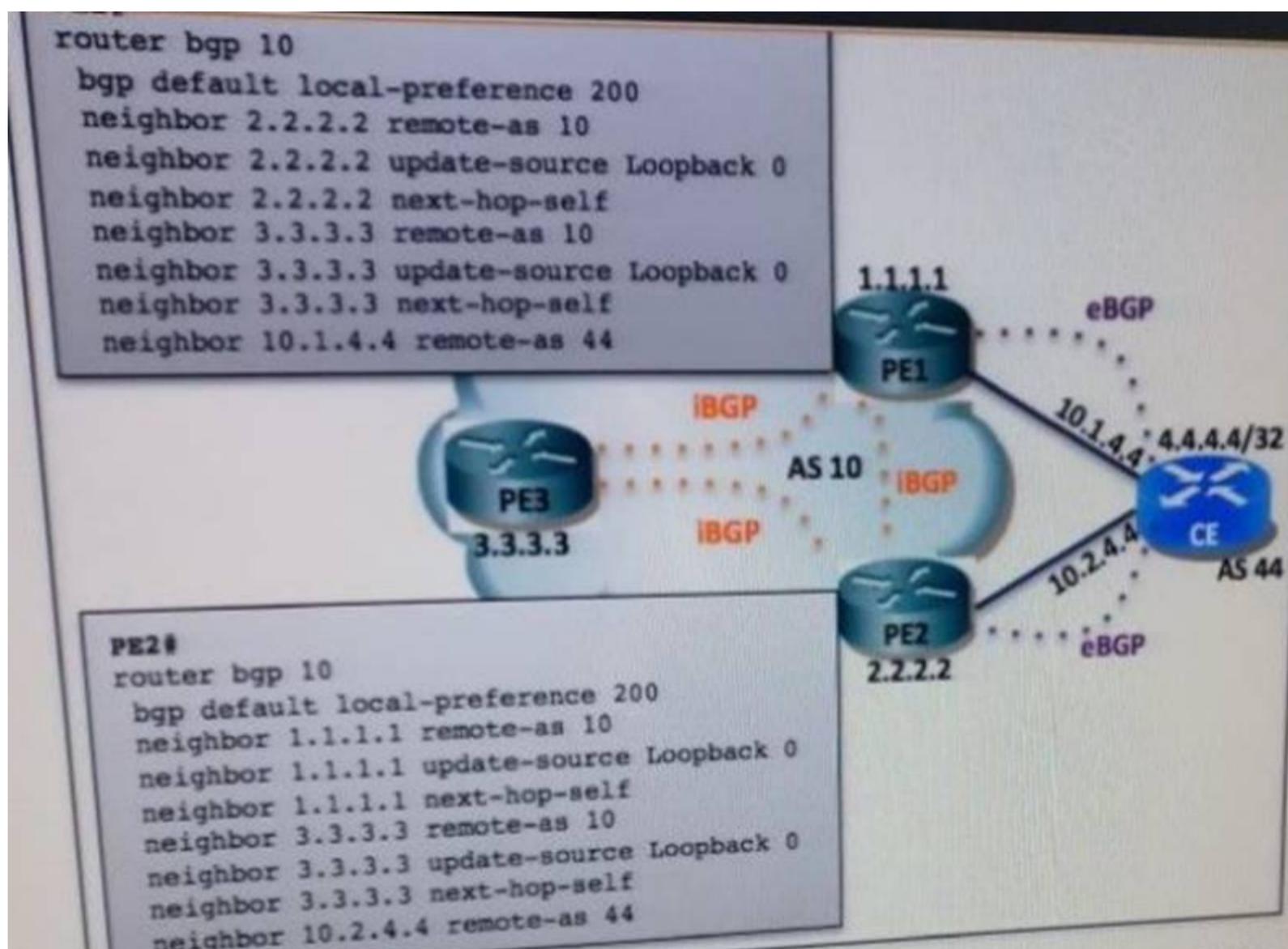
**NEW QUESTION 426**

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 427**



Refer to the exhibit. Assume BGP full mesh configuration among PE3, PE2, and PE 1. Which Cisco IOS configuration must be applied on PE1 and PE2 that makes PE3 learn the 4.4.4.4/32 from both BGP peers?

- A. On the CE, apply the `bgp add-path` command on both PE and PE neighbors configuration
- B. On PE1, apply the `next-hop-self` command on both PE3 neighbors configuration
- C. On PE2, apply the `BGP advertise-best-external` command on the PE3 neighbor configuration
- D. On PE1, apply the `route-reflect-client` command on both PE2 and PE3 neighbors configuration

**Answer: C**

**NEW QUESTION 429**

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**

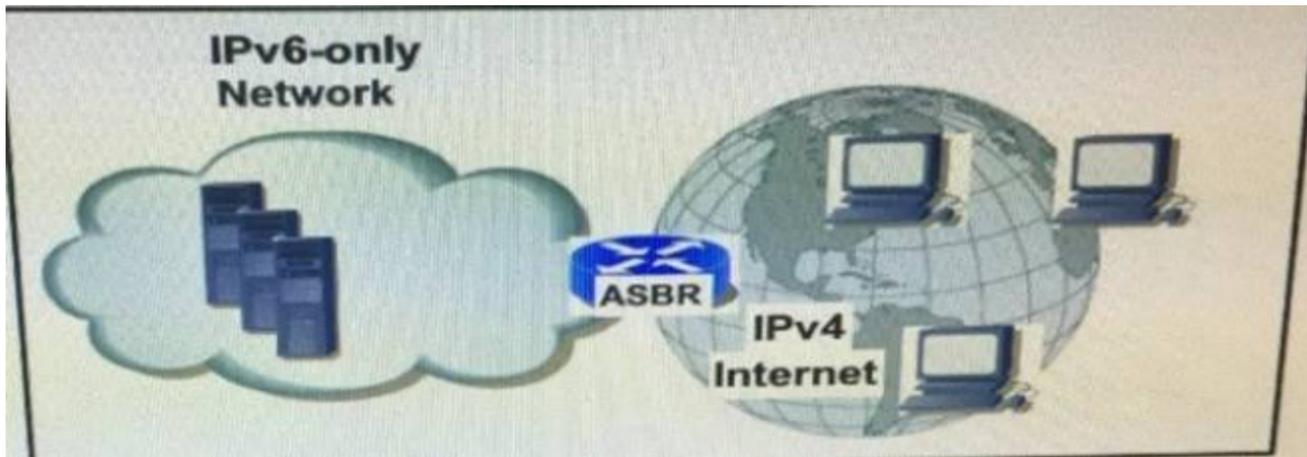
**NEW QUESTION 434**

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 439**



Refer to the exhibit. How can IPv4 hosts located on the IPv4 Internet access the IPv6-only servers located in a small IPv6-only net

- A. By using NAT 444
- B. By using stateless NAT64 with static v6v4 mapping
- C. By using statefull NAT64
- D. It is not possible IPv6 translation with IPv4 Internet hosts
- E. By using stateful NAT64 with static v6v4 mappings

**Answer: E**

**NEW QUESTION 440**

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
```

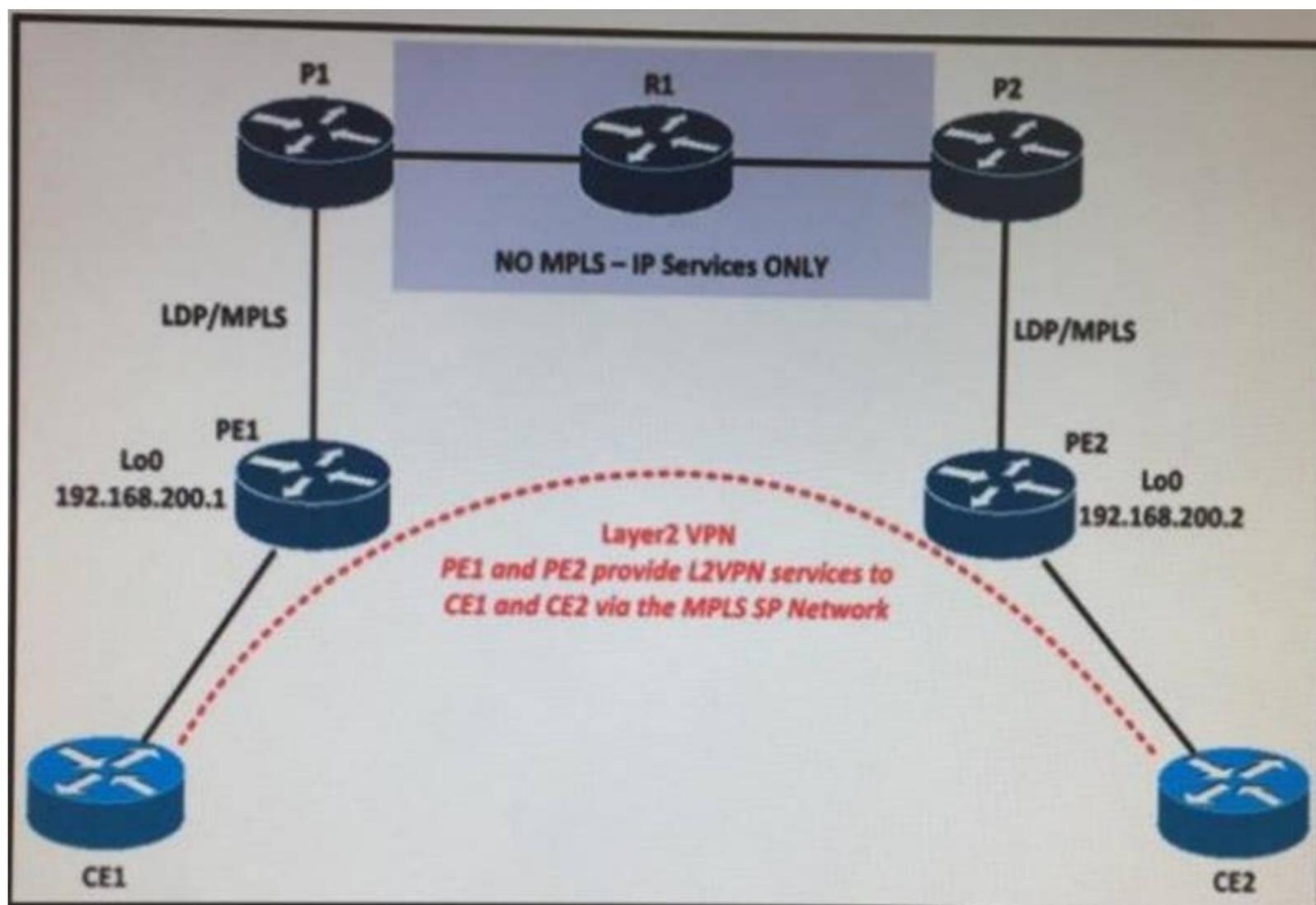
- A. The two routers are not on the same subnet.
- B. IPv6 is not enabled on R2 Fast Ethernet 0/0.
- C. There is no reachability to 1.1.1.1 or 2.2.2.2.
- D. The OSPFv3 processes do not match.
- E. The instance IDs do not match.

**Answer: E**

**NEW QUESTION 442**

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 447**

Which three statements about 6VPE are true? (Choose three.)

- A. An additional address family was added to MP-BGP to support 6VPE.
- B. 6VPE routes are installed in the global routing table.
- C. MP-BGP can be used to propagate routes between the PE and the CE.
- D. 6VPE is functionally equivalent to VPNv4.

**Answer:** ACD

**NEW QUESTION 450**

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 455**

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 458**

MPLS label mapping on an LSR is displayed by which IOS command?

- A. Show mpls ldp neighbor detail
- B. Show mpls ldp bindings
- C. Show mpls ldp parameters
- D. Show mpls ldp discovery

**Answer: B**

**NEW QUESTION 460**

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 465**

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 466**

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 469**

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 472**

How many bits are expressed by "::" in the address 2001:DB8::9C0:876A:0:130B?

- A. 32 bits
- B. 28 bits
- C. 44 bits
- D. 64 bits
- E. 0 bits

**Answer: A**

**NEW QUESTION 474**

What is true regarding Autonomous Systems (AS)?

- A. All of the Above
- B. AS numbers are assigned by the IANA

- C. AS numbers are used by BGP (Border Gateway protocol to exchange IP routing information with neighboring AS
- D. In the internet, an Autonomous System (AS) is a collection of IP networks and routers under the control

Answer: A

**NEW QUESTION 475**

A customer requires to exchange BGP IPv6 prefixes with a service provider. However, the customer is unwilling to propagate its own IPv6 prefixes over the Internet through the service provider. What task engineer take to achieve this objective?

- A. Configure the IPv6 prefixes of the customer with the predefined BGP no-export community attribute
- B. Configure the BGP next-hop for IPv6 prefixes of the customer with the address of the SP BGP route server
- C. Define a route-map or RPL that blackholes all customer IPv6 prefixes
- D. Configure the IPv6 prefixes of the customer with the predefined BGP no-advertise community attribute

Answer: A

**NEW QUESTION 478**

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 480**

Refer to the exhibit.

```

XYZ-CE1#show ip route bgp | include 6.6.6.6
B      6.6.6.6 [20/0] via 10.10.35.3, 00:58:35

ABC-PE1#show ip bgp vpnv4 vrf XYZ 6.6.6.6/32
Paths: (1 available, best #1, table XYZ)
 65000
 4.4.4.4 from 4.4.4.4 (4.4.4.4)
  Origin incomplete, metric 0, localpref 100, valid, internal, best
  mpls labels in/out nlabel/18

ABC-PE1#show ip route 4.4.4.4 255.255.255.255
Known via "bgp 100", distance 20, metric 0
Tag 200, type external
* 10.10.13.1, from 10.10.13.1, 00:01:30 ago
  MPLS label: none
    
```

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 482**

Which router or router combination is used to calculate the MPLS traffic engineering tunnel path?

- A. head-end router and tail-end router
- B. middle-point router
- C. head-end router
- D. tail-end router

**Answer:** C

**NEW QUESTION 487**

DRAG DROP

Drag the MPS label format on the left onto the correct target on right.

<div style="border: 1px solid black; background-color: #e0ffff; padding: 2px; margin-bottom: 2px; text-align: center;">DLCI</div> <div style="border: 1px solid black; background-color: #e0ffff; padding: 2px; margin-bottom: 2px; text-align: center;">NLPID</div> <div style="border: 1px solid black; background-color: #e0ffff; padding: 2px; margin-bottom: 2px; text-align: center;">Label</div> <div style="border: 1px solid black; background-color: #e0ffff; padding: 2px; margin-bottom: 2px; text-align: center;">VPI</div> <div style="border: 1px solid black; background-color: #e0ffff; padding: 2px; margin-bottom: 2px; text-align: center;">VCI</div> <div style="border: 1px solid black; background-color: #e0ffff; padding: 2px; margin-bottom: 2px; text-align: center;">VPI and VCI</div> <div style="border: 1px solid black; background-color: #e0ffff; padding: 2px; margin-bottom: 2px; text-align: center;">VLAN ID</div>	<div style="border: 1px solid black; background-color: #ffffe0; padding: 2px; margin-bottom: 2px; text-align: center;">Ethernet</div> <div style="border: 1px solid black; background-color: #ffffe0; padding: 2px; margin-bottom: 2px; text-align: center;">ATM</div> <div style="border: 1px solid black; background-color: #ffffe0; padding: 2px; margin-bottom: 2px; text-align: center;">Frame Relay</div>
---	---

**Answer:**

**Explanation:**

Drag the MPS label format on the left onto the correct target on right.

<div style="border: 1px dashed green; background-color: #e0ffff; padding: 2px; margin-bottom: 2px; text-align: center;">DLCI</div> <div style="border: 1px dashed green; background-color: #e0ffff; padding: 2px; margin-bottom: 2px; text-align: center;">NLPID</div> <div style="border: 1px dashed green; background-color: #e0ffff; padding: 2px; margin-bottom: 2px; text-align: center;">Label</div> <div style="border: 1px dashed green; background-color: #e0ffff; padding: 2px; margin-bottom: 2px; text-align: center;">VPI</div> <div style="border: 1px dashed green; background-color: #e0ffff; padding: 2px; margin-bottom: 2px; text-align: center;">VCI</div> <div style="border: 1px dashed green; background-color: #e0ffff; padding: 2px; margin-bottom: 2px; text-align: center;">VPI and VCI</div> <div style="border: 1px dashed green; background-color: #e0ffff; padding: 2px; margin-bottom: 2px; text-align: center;">VLAN ID</div>	<div style="border: 1px dashed red; background-color: #e0ffff; padding: 2px; margin-bottom: 2px; text-align: center;">Label</div> <div style="border: 1px dashed red; background-color: #e0ffff; padding: 2px; margin-bottom: 2px; text-align: center;">VPI and VCI</div> <div style="border: 1px solid black; background-color: #e0ffff; padding: 2px; margin-bottom: 2px; text-align: center;">DLCI</div>
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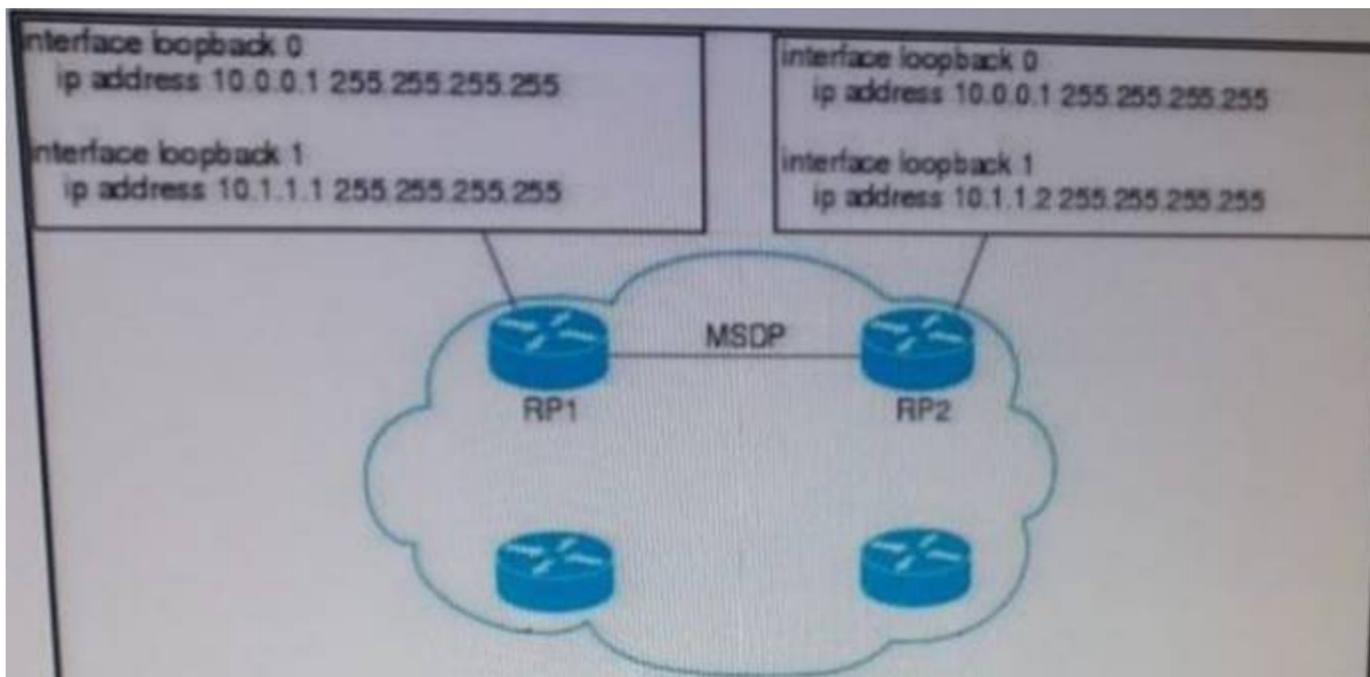
**NEW QUESTION 489**

What will significantly degrade DSL performance, regardless of DSL rate or line length? Select all that apply

- A. Micro liters installed between a telephone and shared line.
- B. POTS splitters at the subscriber's end of the DSL line
- C. POTS splitters at the telco CO.
- D. None of the other alternatives apply.

**Answer:** D

**NEW QUESTION 494**



Refer to the exhibit. All routers are running Cisco IOS software. Which configuration enables PIM Anycast RP on RP1?

- A.  
Ip msdp peer 10.1.1.2 anycast loopback1 Ip pim rp-address loopback0
- B.  
ip msdp peer 10.1.1.2  
Ip pim rp-address loopback0  
!  
Router bgp 10  
Neighbor 10.1.1.2 remote-as 10  
Neighbor 10.1.1.2 update-source loopback1  
!  
Address-family ipv4 multicast Neighbor 10.1.1.2 active
- C.  
ip msdp peer 10.1.1.2 connect-source loopback1  
Ip msdp originator-id loopback 1 Ip pim rp-address loopback0

**Answer:**

**NEW QUESTION 495**

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 500**

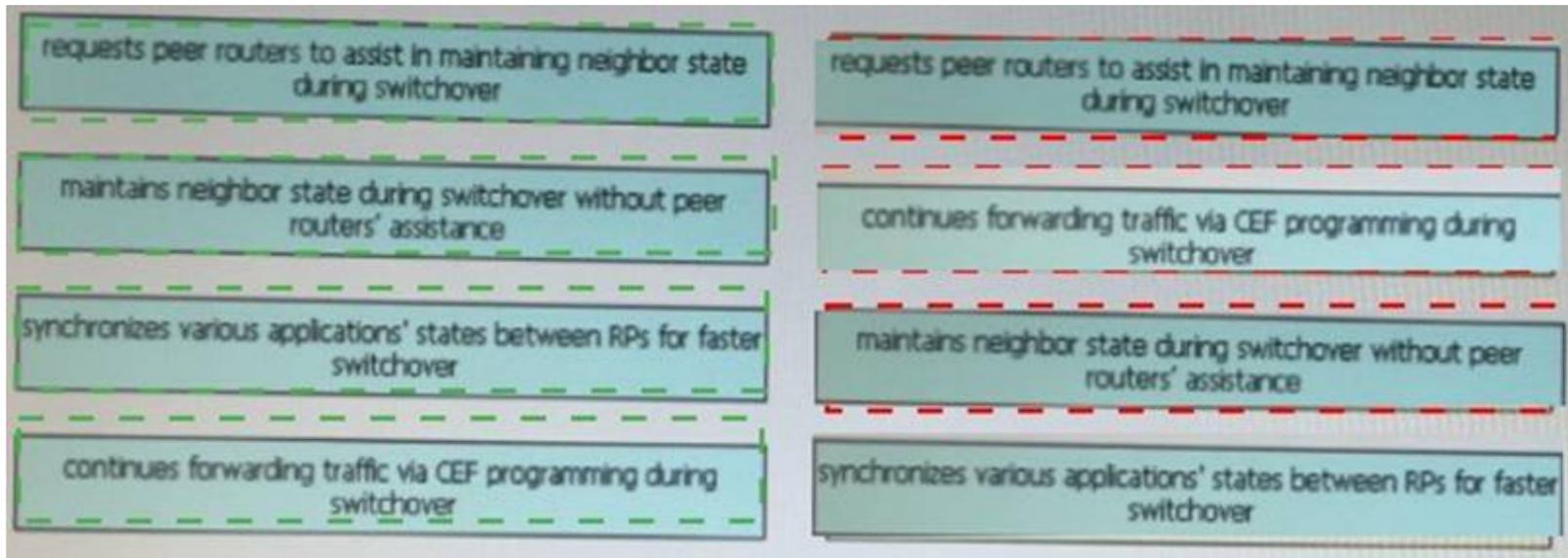
DRAG DROP

Drag each resiliency mechanism on the left to its corresponding technology on the right.

requests peer routers to assist in maintaining neighbor state during switchover	GR
maintains neighbor state during switchover without peer routers' assistance	NSF
synchronizes various applications' states between RPs for faster switchover	NSR
continues forwarding traffic via CEF programming during switchover	SSO

**Answer:**

**Explanation:**



**NEW QUESTION 503**

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:**

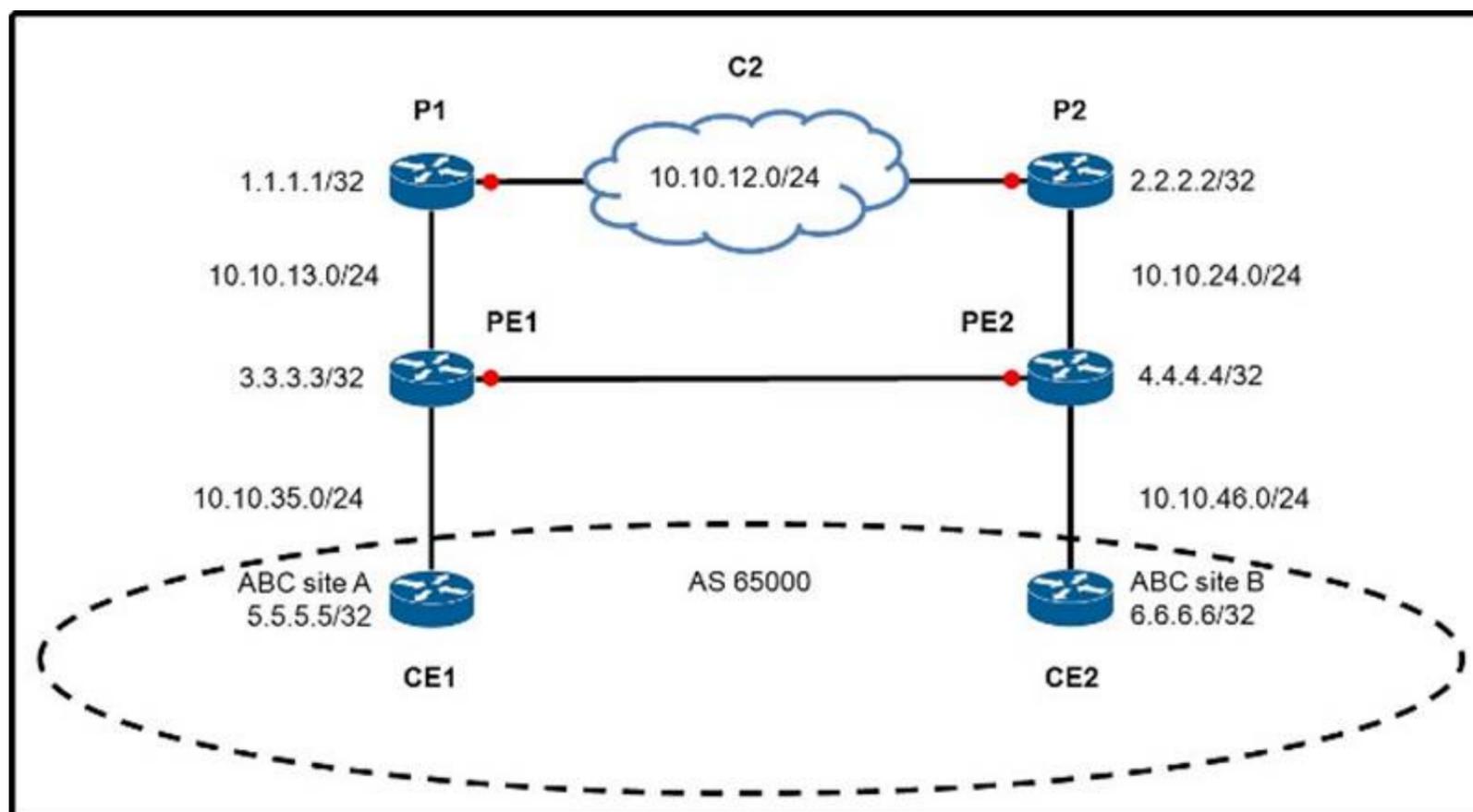
**Explanation:**

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 506**

Refer to the exhibit.



An engineer is viewing the CE1 routing table for CE2 Loopback 0. Each CE runs OSPF with its PE.  
Which statement describes why the CE2 Loopback address is installed as an external OSPF route at the CE1 routing table?

- A. PE1 and PE2 have mutual redistribution between OSPF and BGP.
- B. CE2 is configured under OSPF with the command redistribute connected.
- C. CE1 and CE2 are in different areas.
- D. CE1 and CE2 have different OSPF processes.
- E. PE1 and PE2 have different OSPF VRF processes.

**Answer:** E

**NEW QUESTION 509**

In which two ways does the BGP graceful restart capability preserve prefix information during a restart? (Choose two.)

- A. The peer router sends an end-of-RIB message to the restarting router
- B. The peer router immediately removes the BGP routes that it learned from the restarting router from its BGP routing table
- C. The restarting router waits to receive updates from the neighboring routers.
- D. The restarting router does not remove any stale prefixes after the timer for stale entries expires.
- E. The restarting router removes any stale prefixes after the timer for stale entries expires

**Answer:** CE

**NEW QUESTION 511**

Which two statements about 6RD are true? (Choose two.)

- A. The 6RD customer edge device forwards all packets to the 6RD border relay.
- B. The 6RD customer edge device can forward packets destined to other 6RD customer edge devices outside the local 6RD domain without traversing the 6RD border relay.
- C. Packets between 6RD customer edge devices in the same 6RD domain do not need to traverse the 6RD border relay.
- D. Packets received from a 6RD domain can easily be identified as such on the IPv6 Internet.
- E. The entry point into the local 6RD domain is deterministic.

**Answer:** CE

**NEW QUESTION 516**

A network engineer wants to support Ethernet over MPLS and wants to share only a single VC across the MPLS backbone.  
Which EoMPLS mode supports this feature?

- A. port
- B. VLAN
- C. cell
- D. frame
- E. tunnel

**Answer:** A

**NEW QUESTION 521**

Which two IOS commands are equivalents 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 523**

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 527**

GMPLS is based upon Non-Packet-based devices

- A. True
- B. False

**Answer:** A

**NEW QUESTION 532**

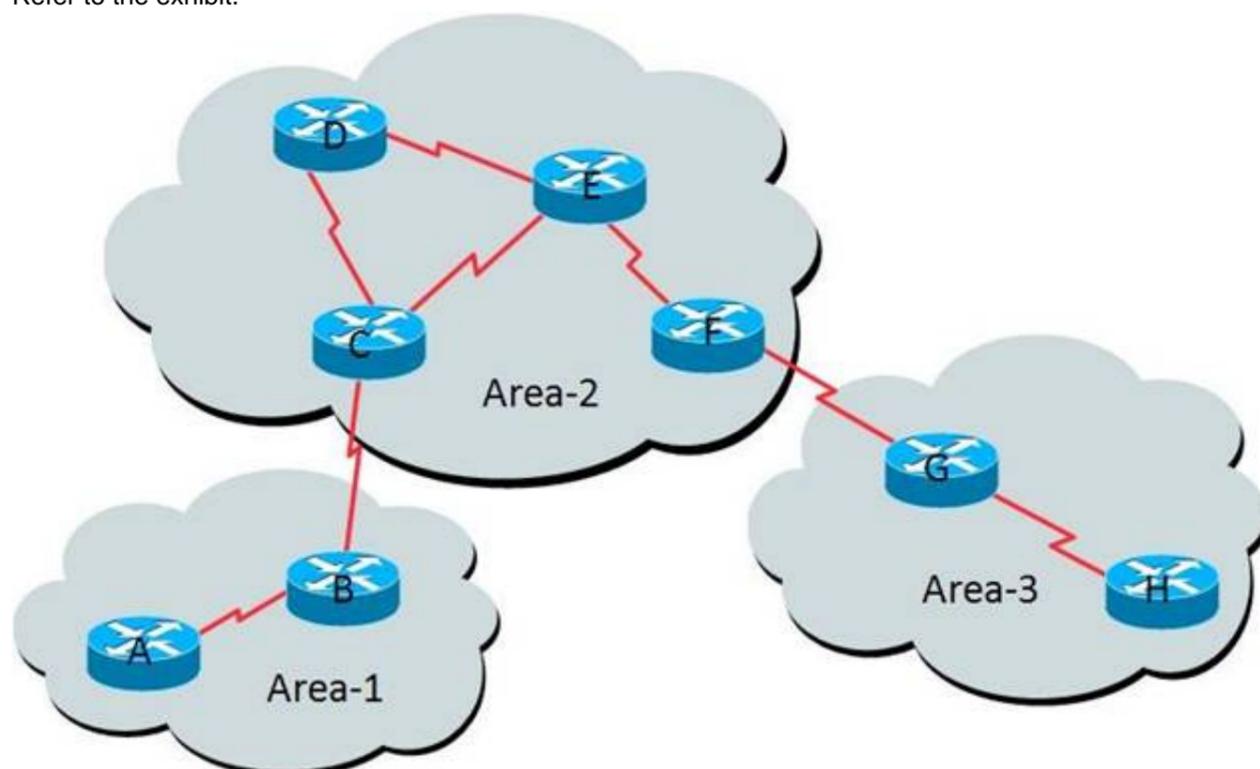
Which statement describes a restriction of inter-AS MPLS VPN?

- 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 534**

Refer to the exhibit.



All routers are running IS-IS. Which routers must be Level 2 routers?

- A. B, D, E and G
- B. A, D, E, and H
- C. B, C, F, and G
- D. B, C, E, F, and G
- E. A, B, C, D, F, G, and H

**Answer:** D

**NEW QUESTION 537**

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 538**

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 542**

DRAG DROP

Drag and drop the QoS characteristics on the left onto its correct QoS mechanism on the right

Answer:

Explanation:

**NEW QUESTION 544**

A security agency wants to use the services of the service provider to interconnect the remote sites. However, they do not want to share the IP addresses of their sites and they want end-to-end security.

Which three services meet the design requirements? (Choose three.)

- A. client mode VPN
- B. tunnel mode VPN
- C. L2VPN
- D. L3VPN
- E. PPTP
- F. SSL VPN

Answer: ABC

**NEW QUESTION 547**

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

- A. internal rout

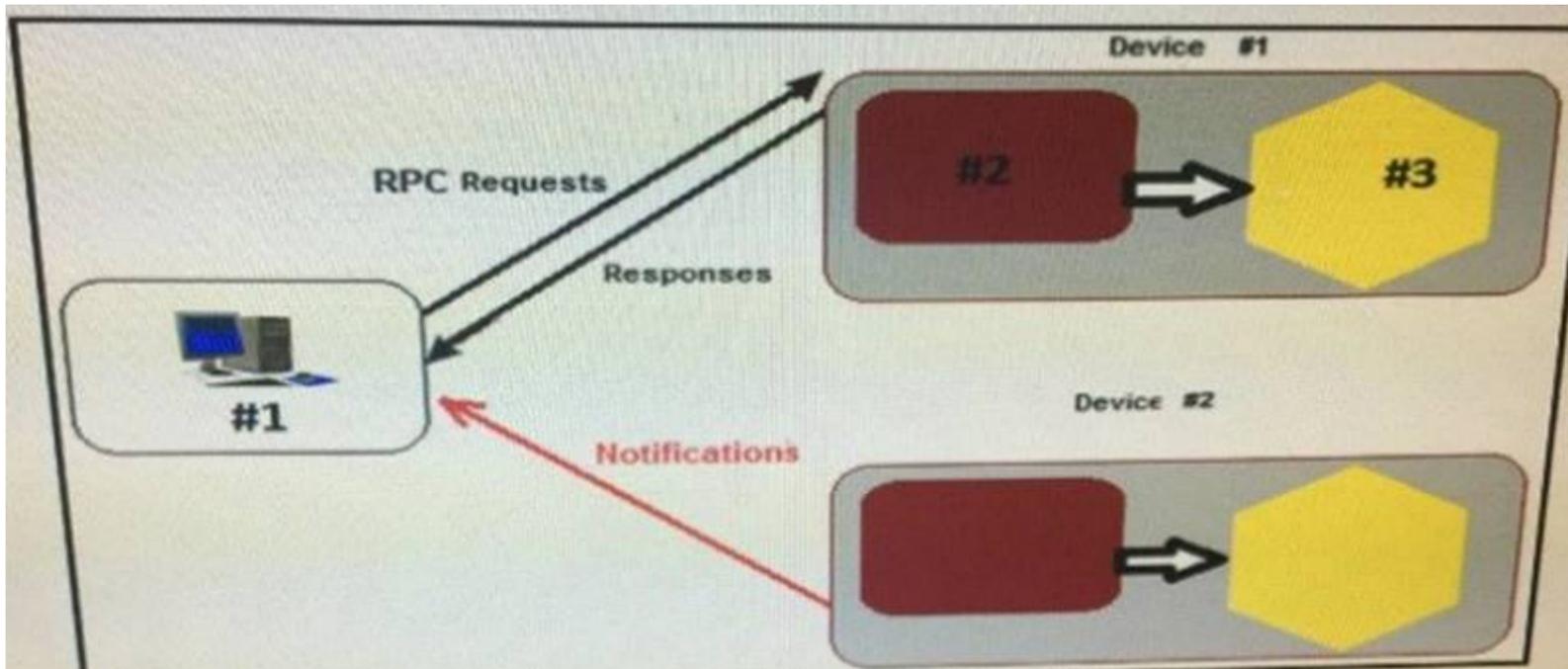
- B. routes that originate within the AS
- C. summary route
- D. routes that are summarized in the router
- E. external route
- F. routes that are redistributed to EIGRP
- G. partial route
- H. partial routes that are summarized in the router
- I. stub route
- J. default route that originates in the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

**Answer:** ABC

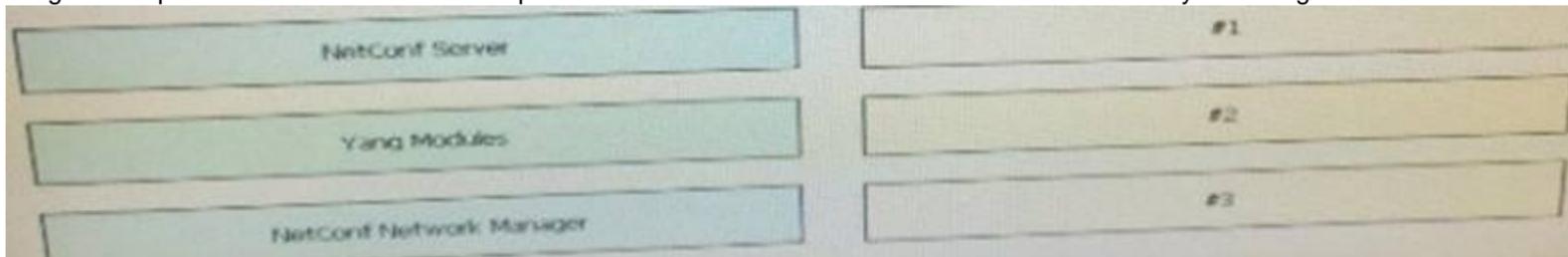
**NEW QUESTION 552**

DRAG DROP

Refer to the exhibit.

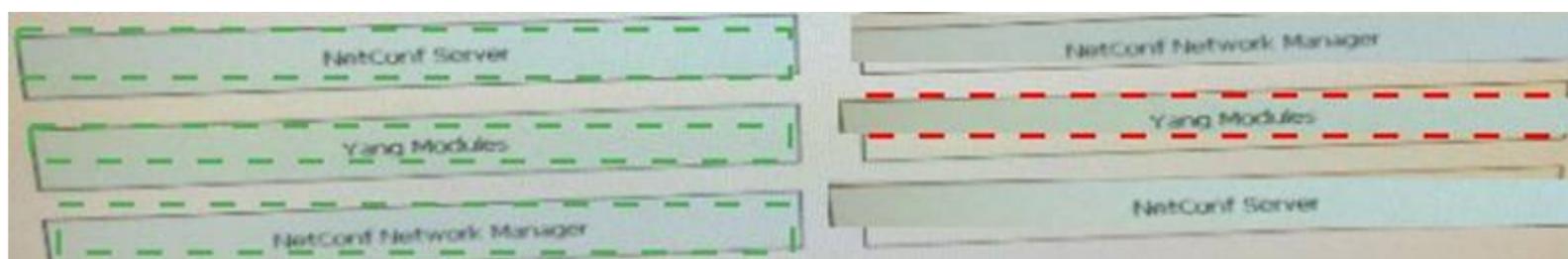


Drag and drop the NetConf architecture components from the left on to the correct network functionality on the right



**Answer:**

**Explanation:**



**NEW QUESTION 557**

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 559**

Which three of these can be a forwarding equivalence class? (Choose three)

- A. IPSec tunnel
- B. routing equivalence paths
- C. traffic engineering tunnel
- D. bridge or switch instance

E. groups of IP addresses

**Answer:** CDE

**NEW QUESTION 562**

DRAG DROP

Drag the protocol on left to the correct function on right to perform MPLS traffic engineering configuration with OSPF.

CSPF	path setup
OSPF	link information distribution
RSVP	forwarding traffic down tunnel
static route	path calculation

**Answer:**

**Explanation:**

Drag the protocol on left to the correct function on right to perform MPLS traffic engineering configuration with OSPF.

CSPF	RSVP
OSPF	OSPF
RSVP	static route
static route	CSPF

**NEW QUESTION 564**

When the default MDT is configured, a multicast tunnel interface is created dynamically. Which statement about MTI is true?

- A. The MTI takes on the interface characteristics of same interface.
- B. The MTI is the interface that connects the PE multicast environment to the service provider global environment.
- C. The MTI is the interface that connects the customer multicast environment to the service provider global environment.
- D. Unicast packets are forwarded over the MTI because this interface does not appear in the unicast routing table of the associated VRF.

**Answer:** C

**NEW QUESTION 565**

Which command will display the MPLS label binding for IP prefix 1.1.1.0 on the router?

- A. All of the above.
- B. show tag-switching tdp binding 1.1.1.0/24
- C. show tag-switching tdp bindings neighbor 1.1.1.0
- D. A and B both will show the binding.
- E. show tag-switching interface e0/0

**Answer:** B

**NEW QUESTION 567**

Which option describes a benefit of IPv6 VPN Provider Edge?

- A. Uses separate signaling plane, which provides more security than IPv4
- B. No requirement for a separate signaling plane
- C. Provides support for intra-AS and CSC scenarios
- D. BGP is the preferred routing protocol for connecting two SPs.

**Answer:** B

**NEW QUESTION 569**

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

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

**Answer:** B

**NEW QUESTION 572**

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 573**

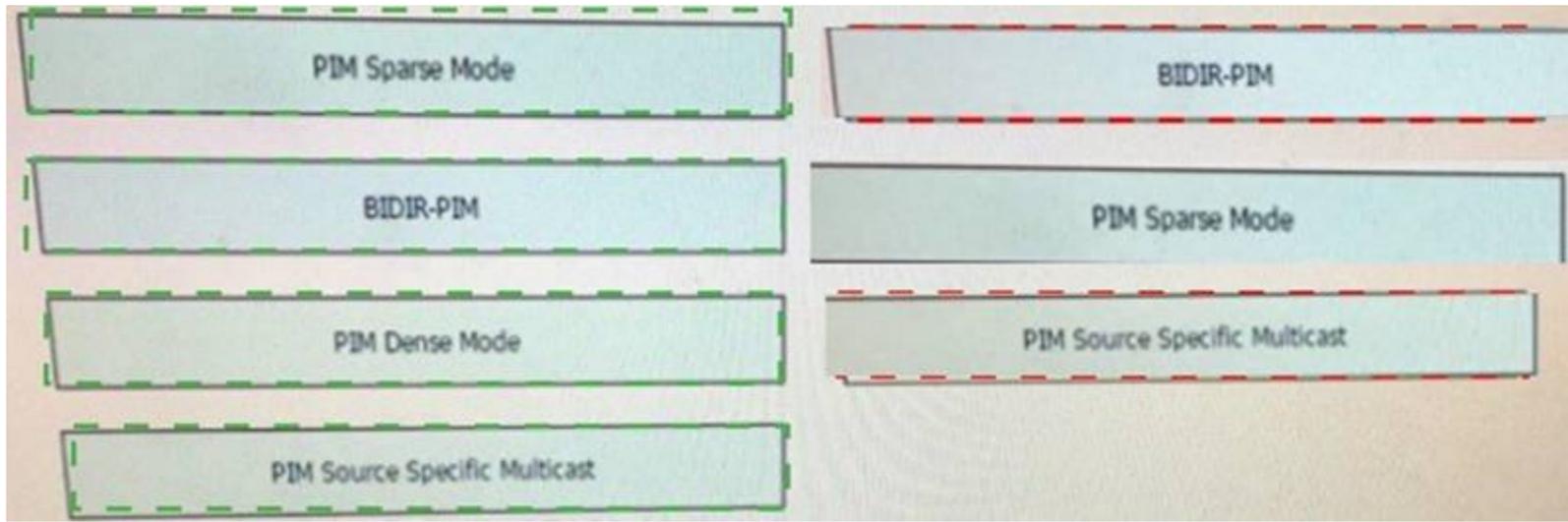
DRAG DROP

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:**



**NEW QUESTION 577**

DRAG DROP

Drag the OSPFv2 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:

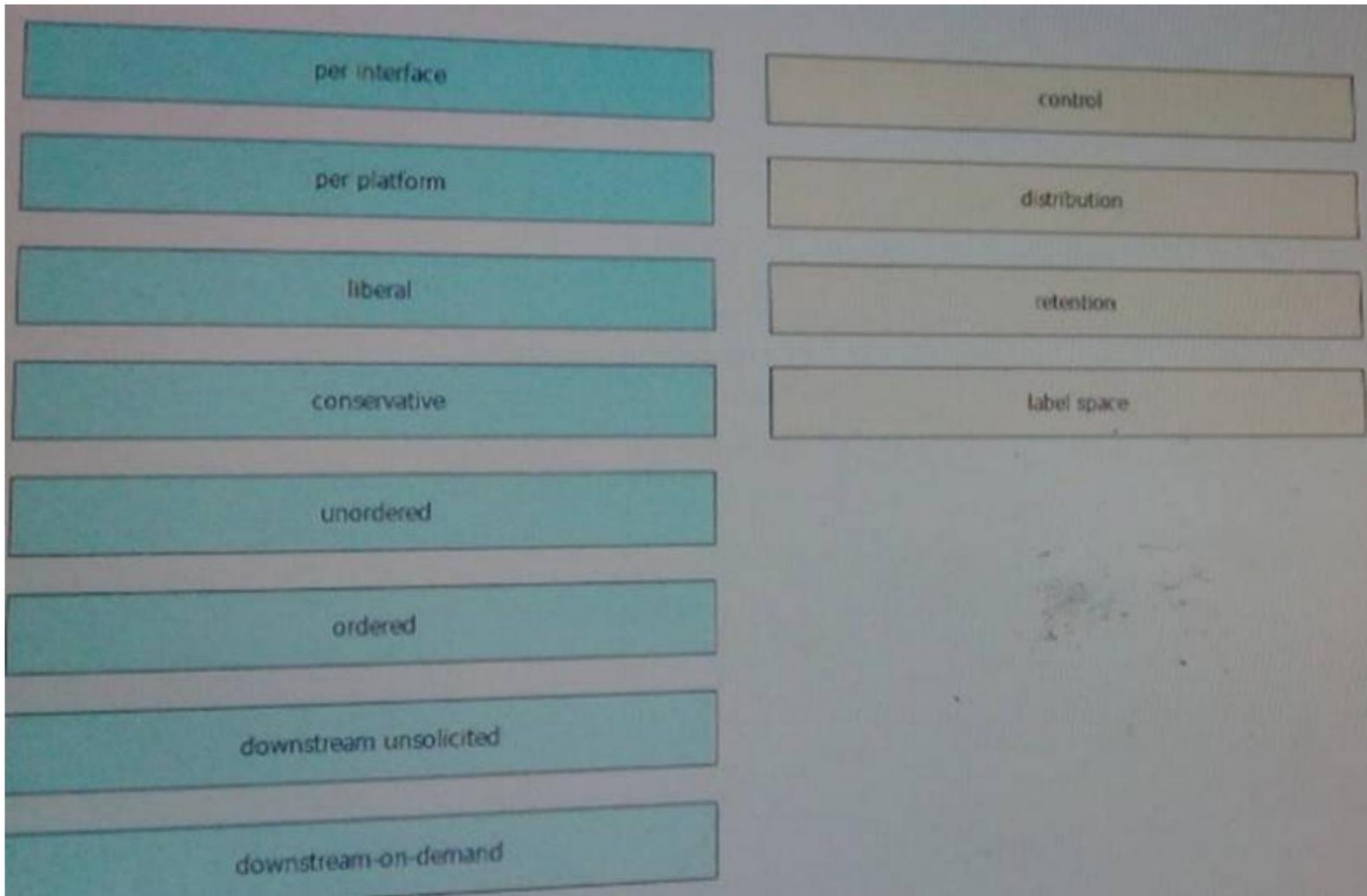
Drag the OSPFv2 LSA type number on the left to the correct LSA name on the right.

1	7
2	5
3	2
4	3
5	4
6	1
7	6

**NEW QUESTION 580**

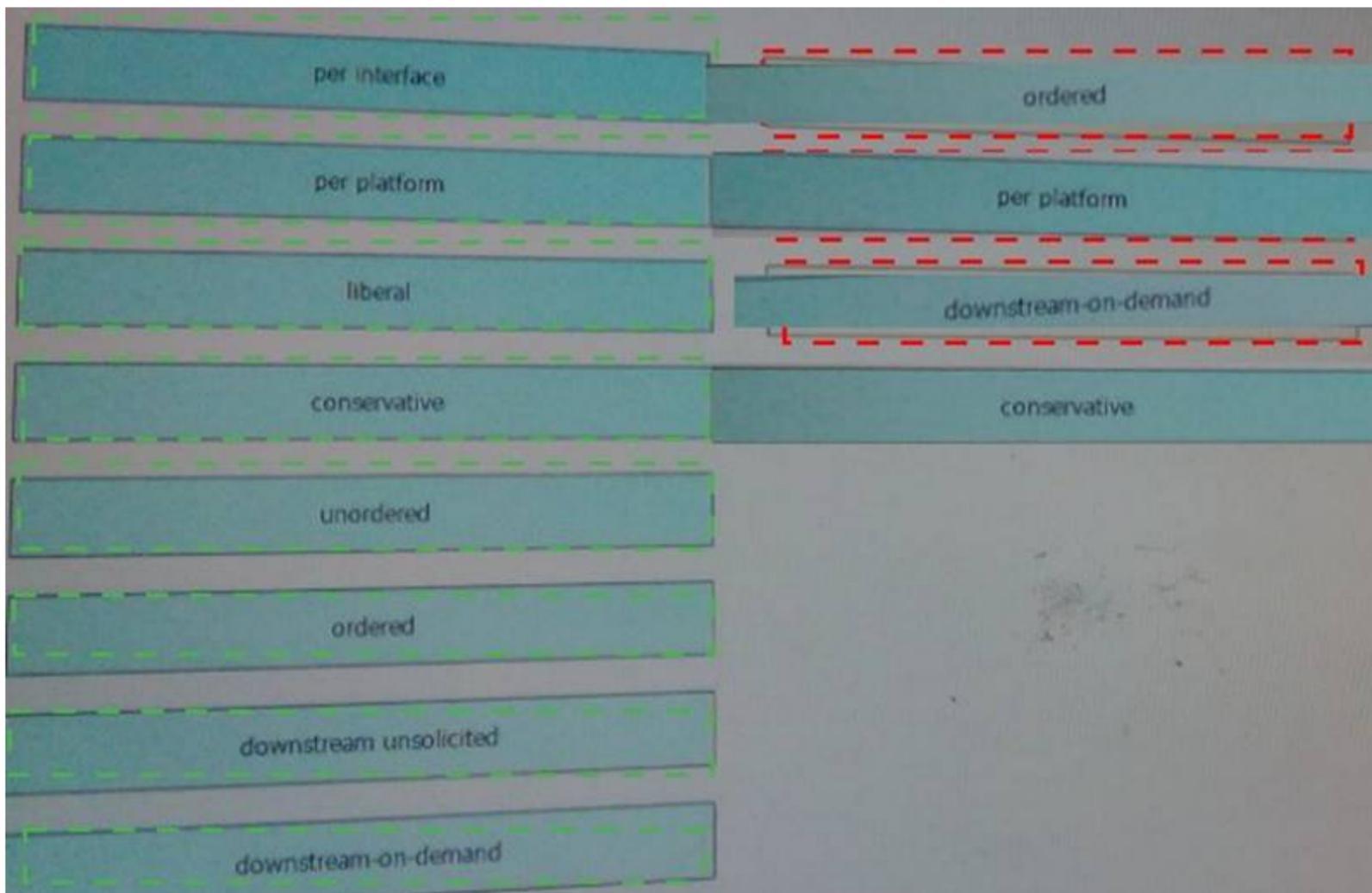
DRAG DROP

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



**Answer:**

**Explanation:**



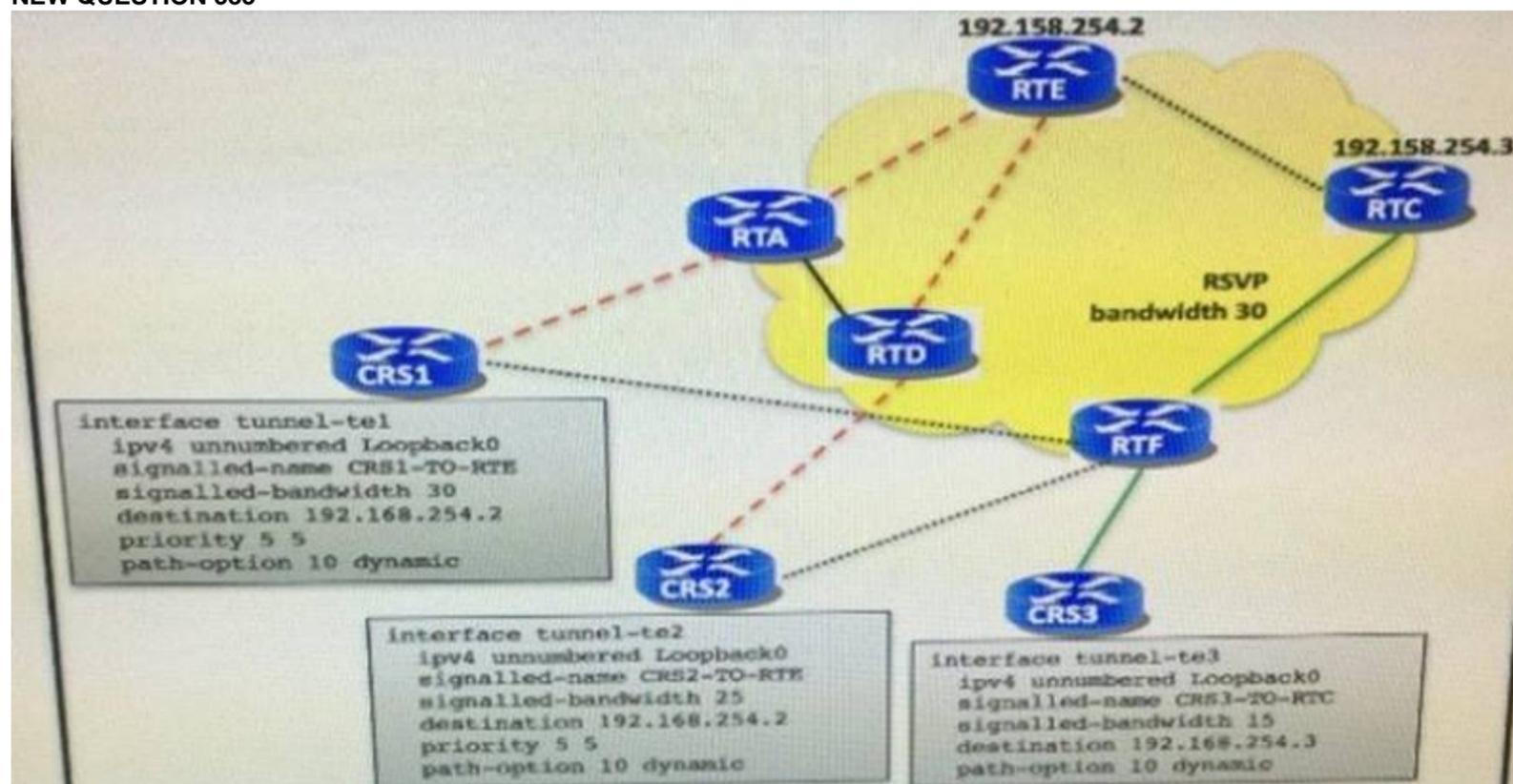
**NEW QUESTION 584**

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 585**



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 RTE3. 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 590**

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 591**

In Cisco IOS XR architecture, what is lightweight messaging?

- A. the communication with several thousand nodes that each run an instance of the kernel
- B. something that reliably multicasts data to various nodes, such as RPs and MSCs, using GSP as the underlying transport
- C. the mode fundamental level, responsible for warning when physical parameters fall outside of operational ranges and shutting down the hardware when parameters approach critical levels
- D. a form of messaging that Cisco designed to create a layer of abstraction between the application that inter process communicate with each other

Answer: D

**NEW QUESTION 595**

```
RP/0/RSP0/CPU0:router# show ptp interfaces GigabitEthernet0/1/0/3

GigabitEthernet0/1/0/3 is in UNCALIBRATED state
PTP port number: 4
IPv4 transport: IPv4 address 5.4.3.2
Linestate: Up
Mechanism: Two-step delay-request-response, Slave-only
  Sync rate: 2 per second
  Announce rate: 2 per second, timeout 4
  Delay-Req interval: 4 per second
CoS: 5, DSCP: 23
Platform capabilities:
  Supported:      One-step, Ethernet, Multicast, Slave
  Not-Supported: IPv6
  Max-Sync-rate: 2 per second
Master table:
(K = Known, Q = Qualified, GM = Grandmaster)
IPv4 address 5.4.3.3: priority 5, multicast, K,Q,GM
IPv4 address 5.4.3.4: priority not set
MAC-address 12ab.7431.327c: priority 3, K
Slave state only
```

Refer to the exhibit. a network engineer is troubleshooting PTP on the Cisco ASR 9000 router. what can be concluded about the interface based on output provided ?

- A. The interface is aware of a better clock than the one it would advertise if it was in master state.
- B. the interface is about to go into master state
- C. the interface receives times stamps from a master clock, but the routers clock is not yet synchronized to the master
- D. the interface is not yet ready to participate on PTP

**Answer: C**

**NEW QUESTION 600**

Which statement about OSPFv3 is true?

- A. OSPFv3 runs on per subnet basis instead of per-link.
- B. OSPFv3 instance ID is only locally significant.
- C. OSPFv3 authentication is performed using the authentication field in the OSPFv3 packet header.
- D. OSPFv3 neighbor discovery messages can be sourced only from link-local addresses.

**Answer: D**

**NEW QUESTION 604**

Which statement about provider-independent and provider-assigned address blocks is true?

- A. There is no difference.
- B. PI space is not globally routable and can be used as private addressing.
- C. PA space is globally routable and can be obtained from IANA by all organizations.
- D. PA space is assigned by the ISP and PI space is assigned by the regional registr
- E. Both are globally routable.
- F. PI and PA blocks are both assigned by the regional registry to all organizations.

**Answer: D**

**NEW QUESTION 608**

If the IPv6 address 2001:0DB8:0000:0000:09C0:876A:0000:130B is entered into a router, which option is displayed in the configuration?

- A. 2001:db8:0:0:9C0:876A::130B
- B. 2001:db8:0:0:09C0:876A:0:130B
- C. 2001:db8::9C0:876A:0:130B
- D. 2001:db8::9C0:876A:130B
- E. 2001:0db8::9C:876A:13B

**Answer: C**

**NEW QUESTION 611**

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 614**

DRAG DROP

Drag and drop the RSVP-TE and mLDP characteristic on the left onto the correct definition on the right

**Answer:**

**Explanation:**

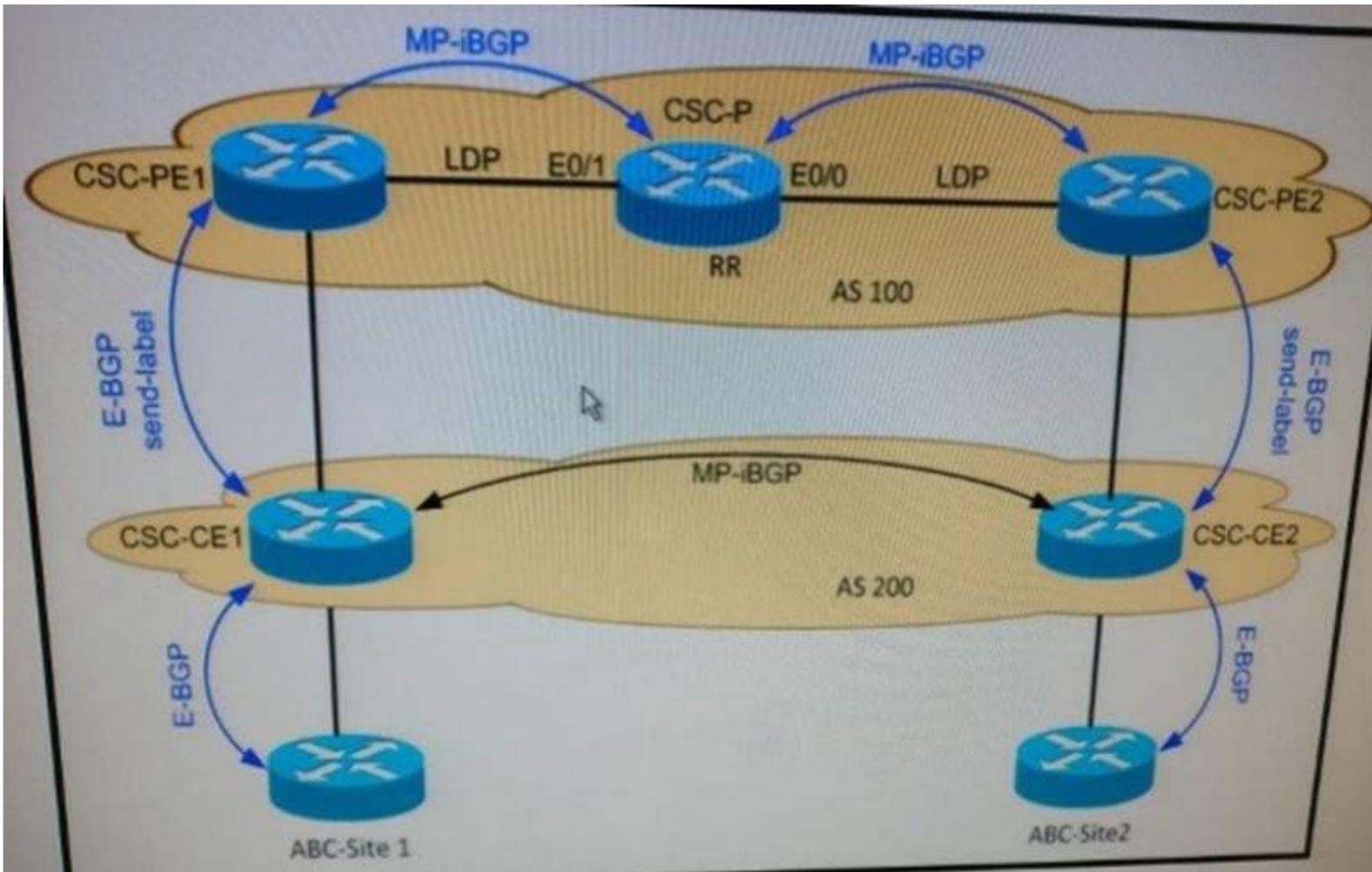
**NEW QUESTION 616**

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 621**

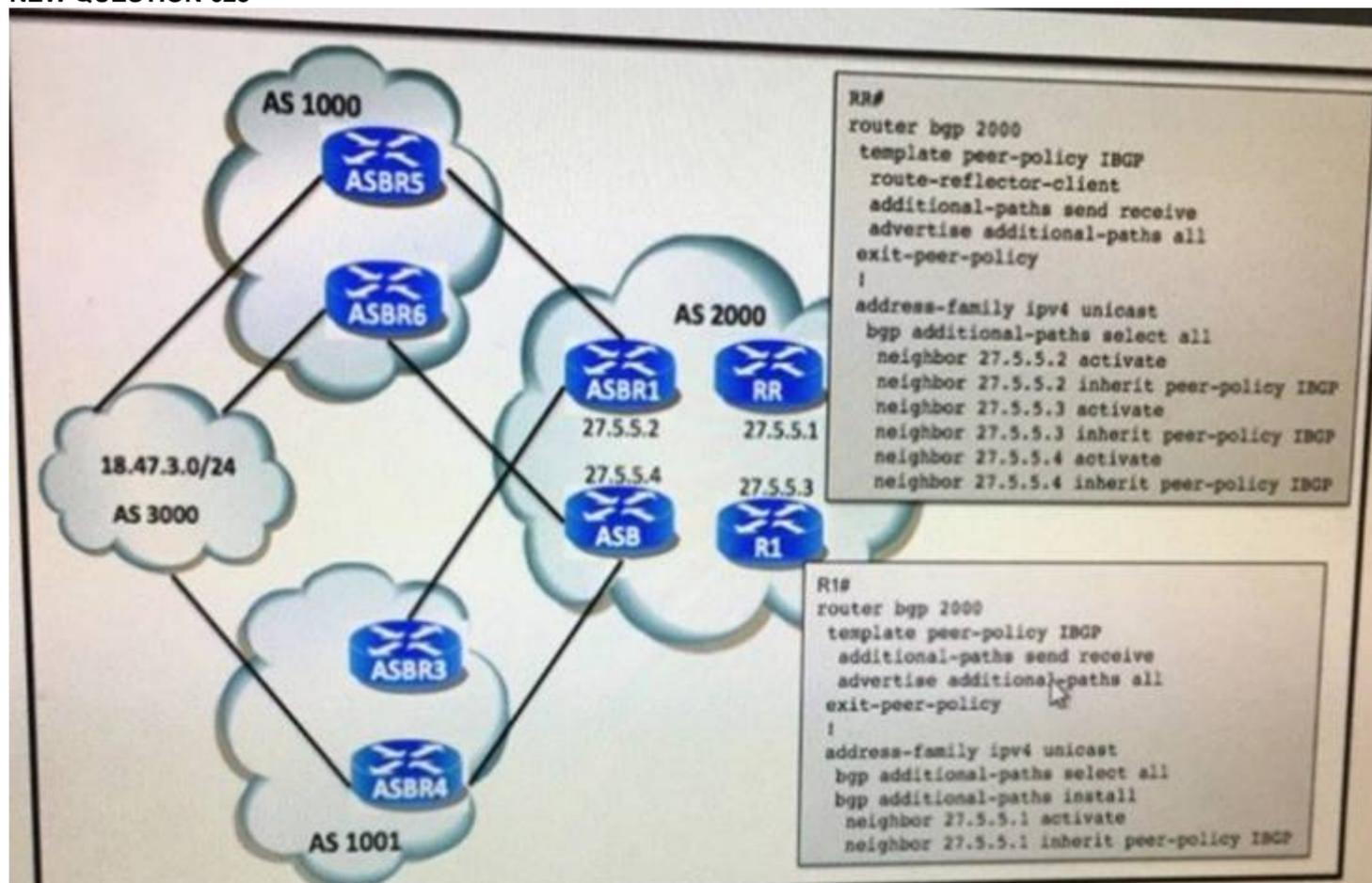


Refer to the exhibit AS 200 uses the CSC solution provided by AS 100 with regards to the packets originated on ABC-Site2 going toward to ABC-Site1, how many labels are in the label stack of these packets when they cross the link between CSC-PE2 and CS-P?

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

Answer: C

**NEW QUESTION 623**



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 628**

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 631**

In the case of 6RD, how does the residential gateway device route the IPv6 packet received from local host?

- A. It looks into the local NAT table to translate the IPv6 address into an IPv4 address.
- B. It looks for the IPv6 destination in the local IPv6 routing table.
- C. It sends all the IPv6 traffic to the Border Relay router.
- D. It derives the IPv4 address from the IPv6 destination address.

**Answer: D**

**NEW QUESTION 633**

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 636**

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 640**

Which series of commands allow a port to transition to an up state in Cisco IOS XR when a non-OEM Cisco TenGigabit Ethernet receiver is installed?

- A. RP/0/RSP0/CPU0:ios#conf t RP/0/RSP0/CPU0:ios(config)#int gigabitEthernet 0/5/0/0 RP/0/RSP0/CPU0:ios(config-if)#transceiver permit pid all RP/0/RSP0/CPU0:ios(config-if)#commit
- B. RP/0/RSP0/CPU0:ios#conf t RP/0/RSP0/CPU0:ios(config)#int tenGigE 0/5/0/0 RP/0/RSP0/CPU0:ios(config-if)#transceiver permit pid all RP/0/RSP0/CPU0:ios(config-if)#commit
- C. RP/0/RSP0/CPU0:ios#conf t RP/0/RSP0/CPU0:ios(config)#int tenGigE 0/5/0/0 RP/0/RSP0/CPU0:ios(config-if)#shut RP/0/RSP0/CPU0:ios(config-if)#commit RP/0/RSP0/CPU0:ios(config-if)#no shut RP/0/RSP0/CPU0:ios(config-if)#commit
- D. RP/0/RSP0/CPU0:ios#conf t RP/0/RSP0/CPU0:ios(config)#int gigabitEthernet 0/5/0/0 RP/0/RSP0/CPU0:ios(config-if)#speed 10000 RP/0/RSP0/CPU0:ios(config-if)#commit

**Answer: B**

**NEW QUESTION 643**

Which two statements about spanning tree path cost are true? (Choose two.)

- A. The path cost can be changed for an interface using the spanning-tree cost command.
- B. The path cost can be changed for an interface using the stp path-cost command.
- C. The STP default path cost depends on the interface speed.
- D. The STP default path cost is similar for all interface.

**Answer: AC**

**NEW QUESTION 646**

DRAG DROP

Drag and drop the SONET parity error bit on the left to the corresponding SONET layer on the right.  
Not all options will be used.

B1	section
E1	line
B2	path
E2	
B3	
E3	

**Answer:**

**Explanation:**

Drag and drop the SONET parity error bit on the left to the corresponding SONET layer on the right.  
Not all options will be used.

B1	B1
E1	B2
B2	B3
E2	
B3	
E3	

**NEW QUESTION 648**

What are three advantages of PPPoA implementation? (Choose three.)

- A. NAP and NSP provide secure access to corporate gateways without managing end-to-end PVC
- B. NAP and NSP use Layer 3 routing, Layer 2 Forwarding, or Layer 2 Tunneling Protocol tunnel
- C. Hence, they can scale their business models for selling wholesale service.
- D. Only a single session per CPE on one virtual channel (VC). The username and password are configured on the CPE, so all users behind the CPE for that particular VC can access only one set of service
- E. Users cannot select different sets of services, although using multiple VCs and establishing different PPP sessions on different VCs is possible.
- F. The NSP can oversubscribe by deploying idle and session timeouts using an industry standard RADIUS server for each subscriber.
- G. If a single IP address is provided to the CPE, and NAT or PAT is implemented, certain applications such as IPTV, which embed IP information in the payload, will not work
- H. Additionally, if an IP subnet feature is used, an IP address also has to be reserved for the CPE.
- I. PPPoA can use the features on the SSG.
- J. Cisco Service Selection Gateway is not compatible with PPPoA.

**Answer:** ACE

**NEW QUESTION 652**

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 655**

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 657**

A network engineer is asked to monitor the VPLS services using IP LSP traceroute and ping. Which feature should be used to achieve this goal?

- A. MPLS OAM
- B. IP SLA
- C. PW
- D. AToM

**Answer: A**

**NEW QUESTION 660**

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 662**

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 663**

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 665**

.....

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