

# Cisco

## Exam Questions 400-201

CCIE SP Written v4.0



#### NEW QUESTION 1

What is the port number of an IPsec Encapsulating Security Payload packet? (ESP)

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

**Answer: C**

#### NEW QUESTION 2

Which are the two purposes of the MPLS label value 1? (Choose two.)

- A. It indicates an implicit null label
- B. It is used to carry the QoS value in the label stack
- C. It is used for VPNv6 packets
- D. It is used for MPLS OAM packets
- E. It indicates an explicit null label
- F. It indicates a router alert label

**Answer: DF**

#### NEW QUESTION 3

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

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

**Answer: C**

#### NEW QUESTION 4

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 5



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

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

**Answer: B**

#### NEW QUESTION 6

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 7

Which description of the Russian Doll Model is true?

- A. RDM provides bandwidth sharing while providing bandwidth isolation and protection against QoS degradation, and also provides service differentiation for high-priority, normal-priority and best-effort priority services
- B. RDM matches simple bandwidth control policies setting individual bandwidth constraint for a given class type and simultaneously limit the aggregate of reserved bandwidth across all class types
- C. RDM can be used simultaneously to ensure bandwidth efficiency and to protect against QoS degradation of all class types, whether preemption is used or not
- D. RDM guarantees a predefined amount of bandwidth for each type and at the same time allows the bandwidth sharing by defining two pools for every class type: private pool (guaranteed bandwidth) and common pool (bandwidth shared between all class types)

**Answer:** C

#### NEW QUESTION 8

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

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

**Answer:** D

#### NEW QUESTION 9

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 10

In MPLS-enabled networks, which two improvements does EVPN provide compared to traditional VPLS solutions? (Choose two)

- A. use of BGP as a control-plane protocol
- B. use of LDP to allocate EVPN-related labels
- C. optimized learning and flooding process
- D. leveraging of enhanced VFIs to provide greater scalability
- E. per-flow load balancing
- F. no need for exchange of MAC reachability between PEs

**Answer:** CE

#### NEW QUESTION 10

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

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

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

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

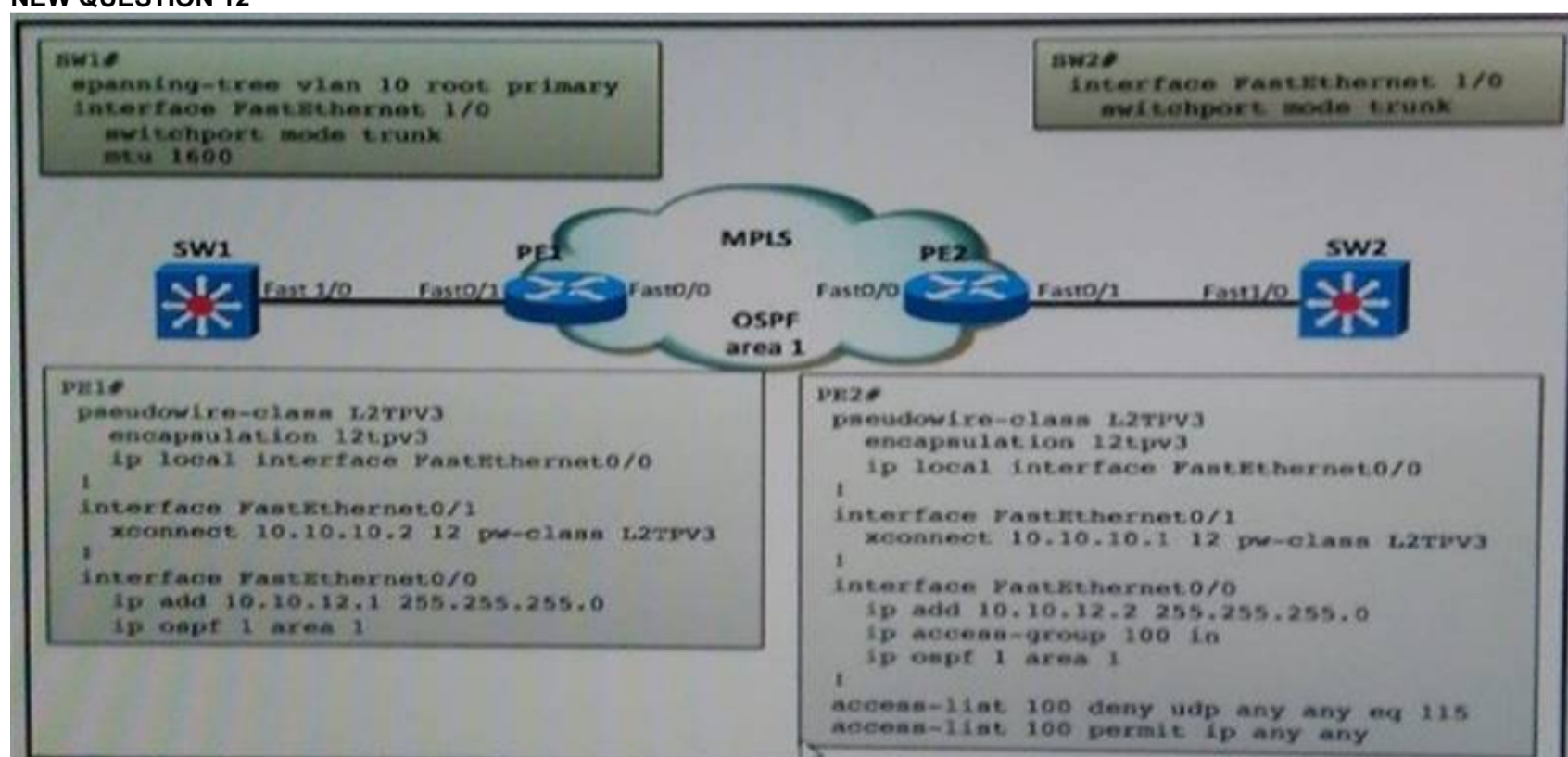
Which configuration accomplishes this BGP routing policy?

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

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

Answer: C

#### NEW QUESTION 12



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**

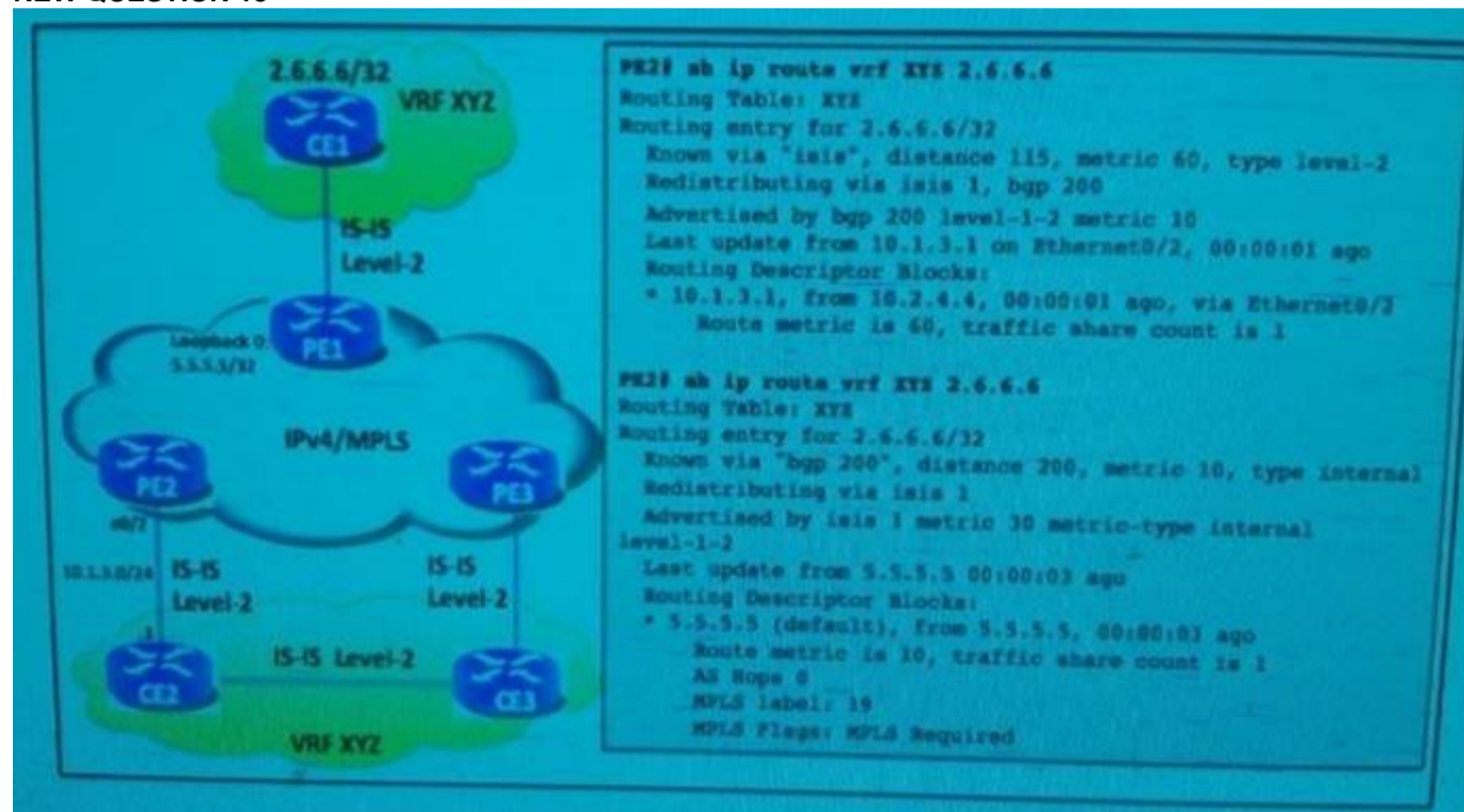
#### NEW QUESTION 15

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 18



Refer to the exhibit the 2.6.6.6/32 prefix is flapping when PE1 is flapping. Which action can fox 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**

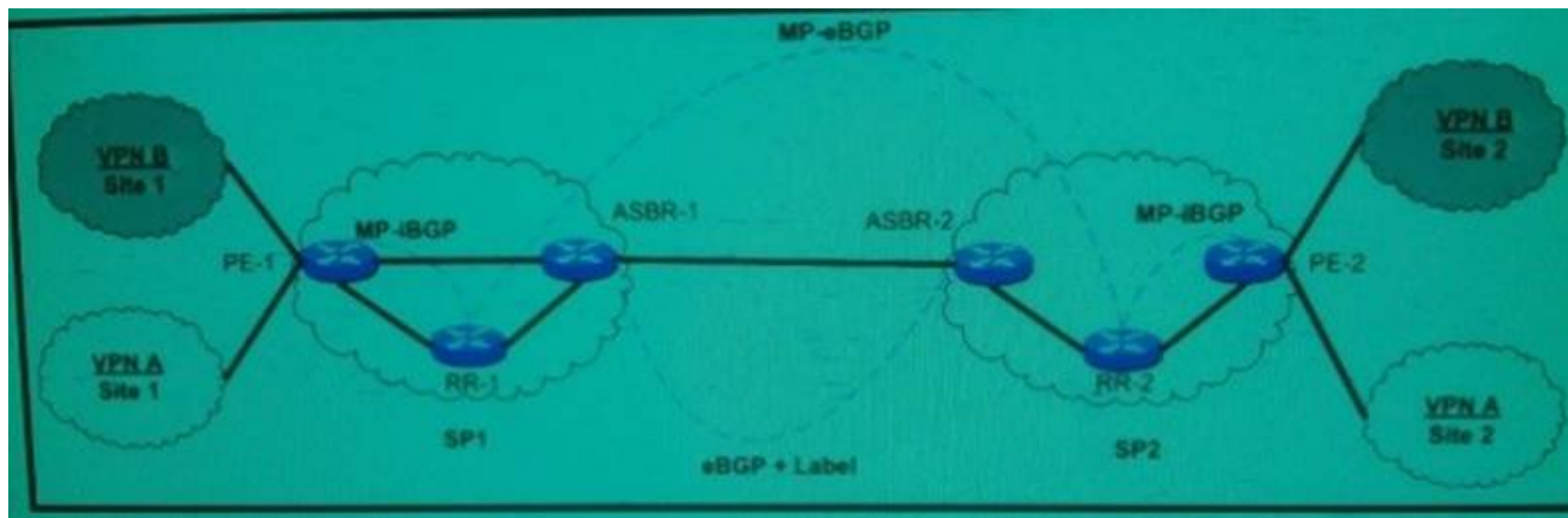
#### NEW QUESTION 21

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 24



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 26

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 29

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 34

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

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

**Answer: ADF**

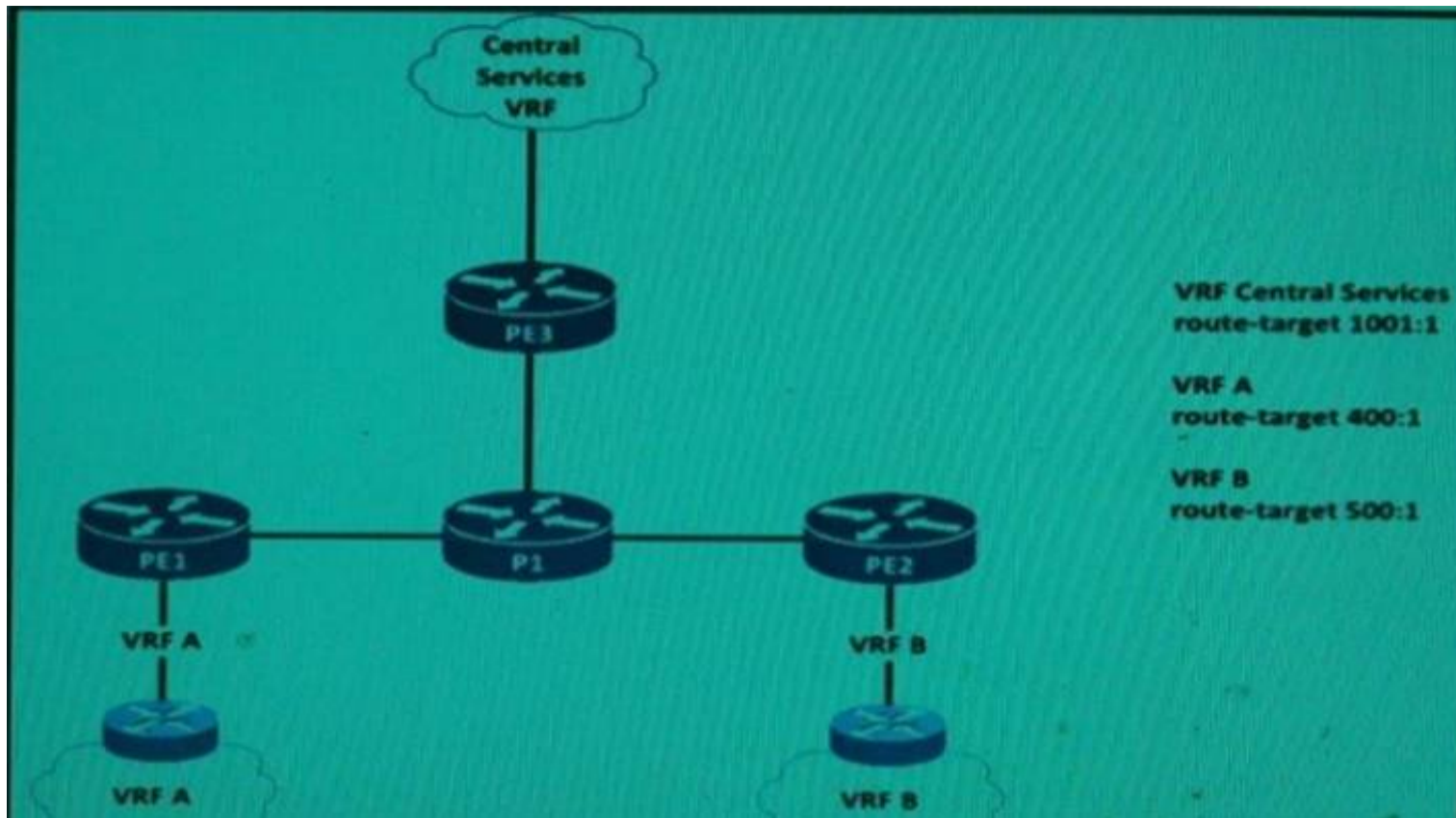
#### NEW QUESTION 39

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

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

**Answer: A**

#### NEW QUESTION 41



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

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

**Answer: C**

#### NEW QUESTION 45

A service provider 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 47

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 50

What is the main goal of the incident management?

- A. Restore a normal service operation as quickly as possible
- B. Create possible workarounds for issues that might recur
- C. Enable the cursor to report issues
- D. Ensure that the same incident does not recur

**Answer: A**

#### NEW QUESTION 55

In PPPoA architecture, which two methods are most commonly deployed? (Choose two)

- A. Terminating PPP sessions at the service provider

- B. L2TP tunnelling
- C. GRE tunnelling
- D. PPP multiplexing
- E. PPP framing

**Answer:** AB

**NEW QUESTION 56**

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

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

**Answer:** B

**NEW QUESTION 59**

Which technology is a forwarding decision point in a PE router that provides flexibility to make many Layer 2 flow decisions within an interface?

- A. pseudowire
- B. AToM
- C. VPLS
- D. local connect
- E. EFP

**Answer:** E

**NEW QUESTION 62**

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

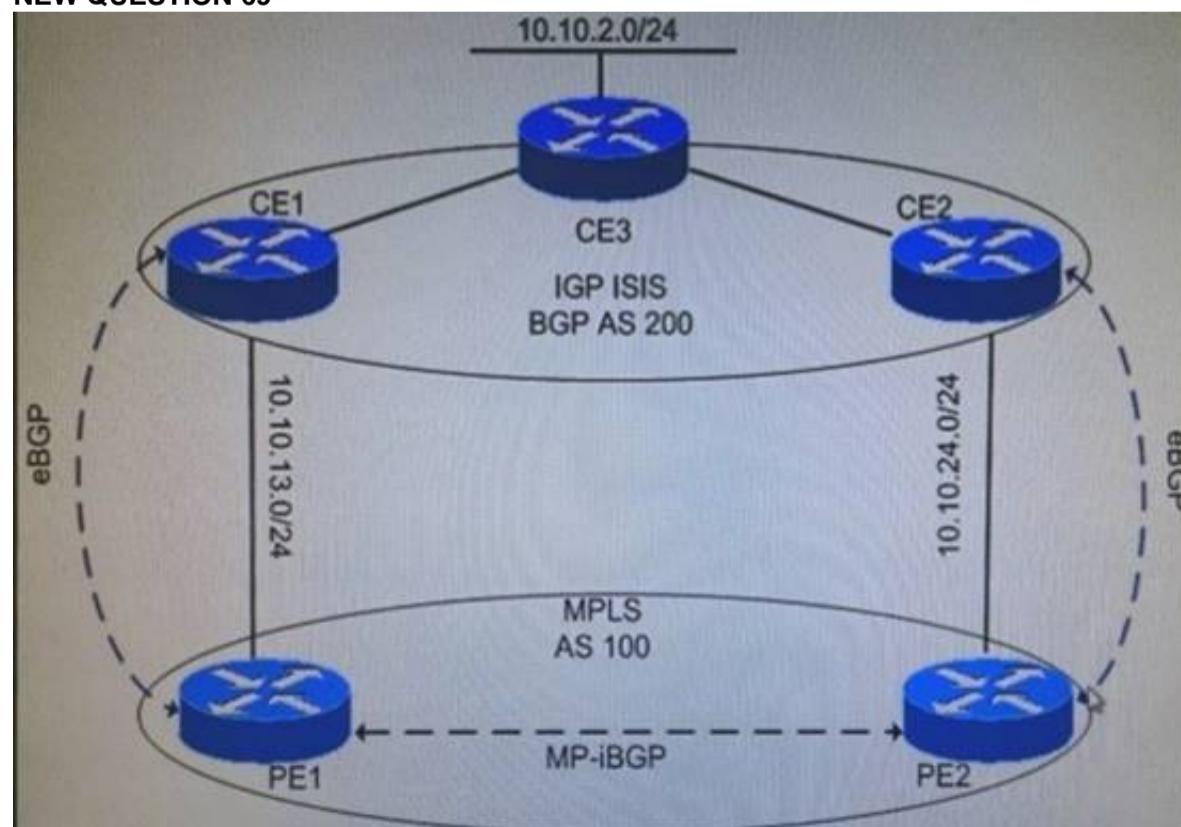
**NEW QUESTION 64**

A service provider has 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 69**



Refer to the exhibit. A customer is running IS-IS within a network and is using BGP as a CE-PE routing protocol. Which action allows CE1 to get the subnet 10.10.2.0/24 over the CE1-PE1 link, regardless of whether there is a flap in the MPLS link or backdoor link?

- A. Configure the neighbor <PE1-IP>weight 33768 command on CE1 under the BGP process.
- B. Configure the distance bgp 115 200 200 command on CE1 under the BGP process.
- C. Configure the distance 30 ip command on CE1 under the IS-IS process.
- D. Configure the distance bgp 115 200 200 command on CE2 under the BGP process.
- E. Configure the neighbor <PE1-IP>weight 33768 command on CE2 under the BGP process.

**Answer: A**

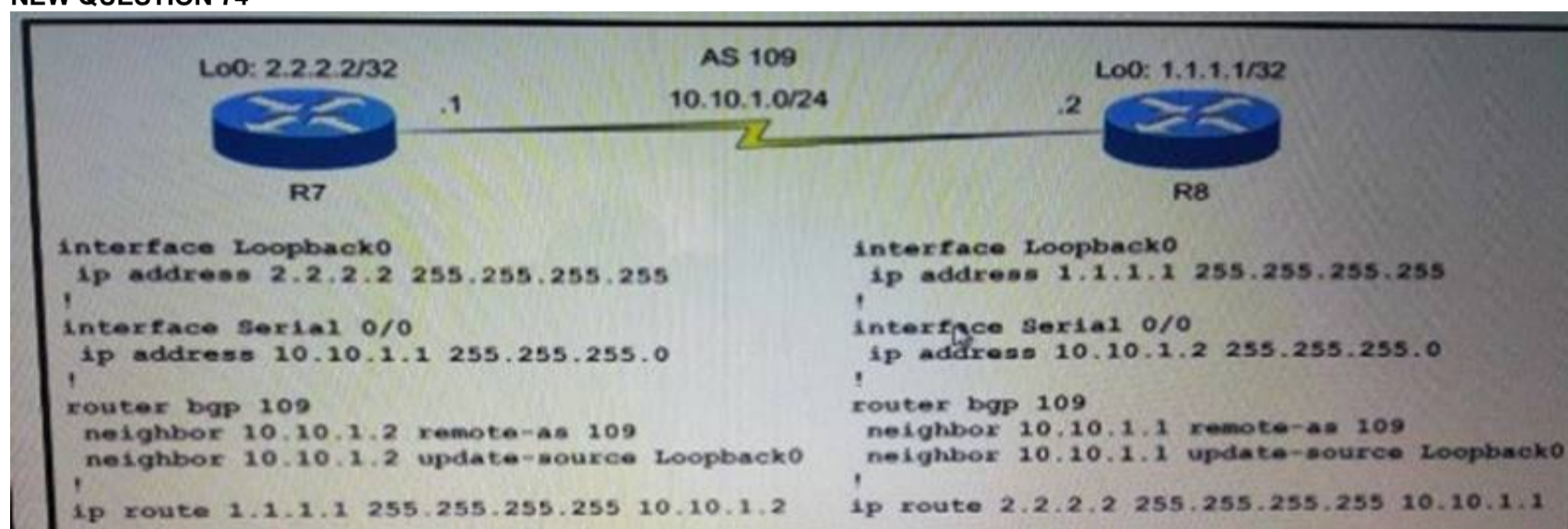
#### NEW QUESTION 72

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

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

**Answer: B**

#### NEW QUESTION 74



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**

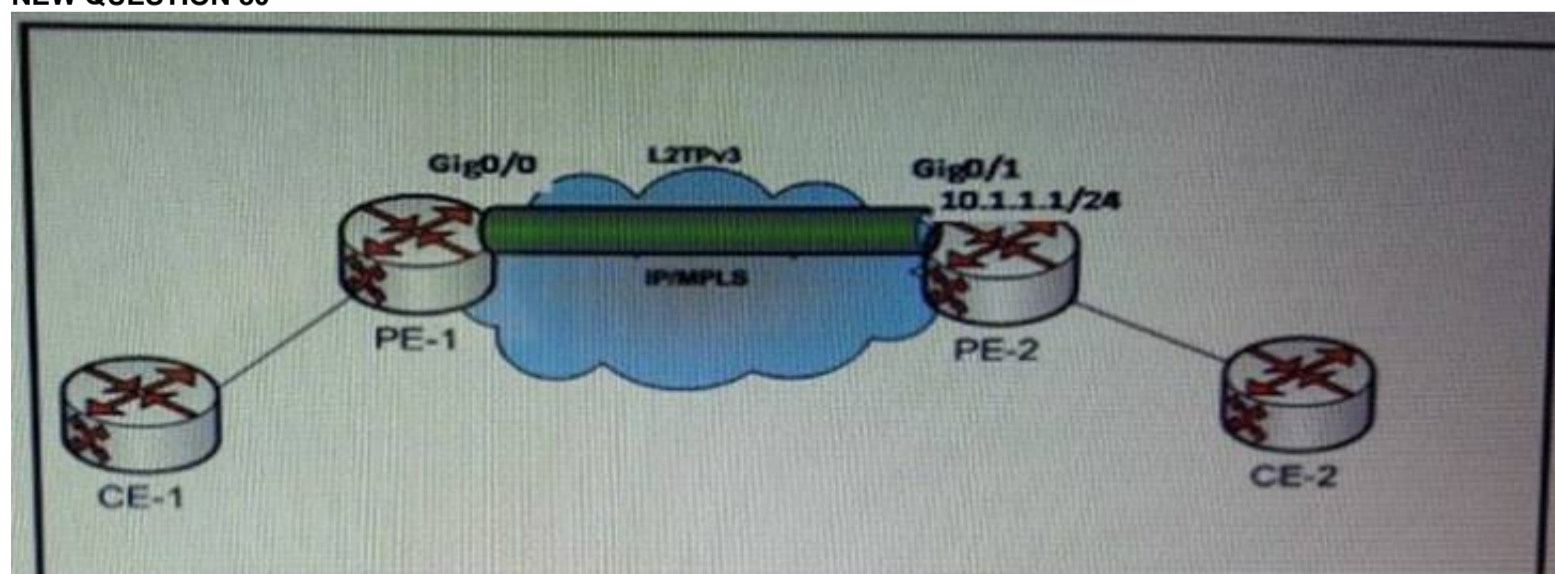
#### NEW QUESTION 77

What is the main different between an SNMP trap and a syslog message?

- A. SNMP traps are formally defined in a MIB, and syslog body contents are not formally defined
- B. SNMP traps are forwarded to EMS systems and syslog messages are forwarded to any NMS system
- C. SNMP traps are user-definable and vary based on vendor and syslog messages are standards-based
- D. SNMP traps are secure, and syslog message are not
- E. SNMP traps are triggered during network outages, and syslog messages are informational only

**Answer: A**

#### NEW QUESTION 80



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 83

Refer to the exhibit. The P1 router is elected as the DIS on the broadcast link. Assuming that all the configurations are applied correctly, how many routers will establish IS-IS neighborship with P1 router on this broadcast link?

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

**Answer:**

#### NEW QUESTION 84

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

\*MPLS EXP 0 for Bronze service class

\*MPLS EXP 1 for Silver service class

\*MPLS EXP 2 for Gold service class

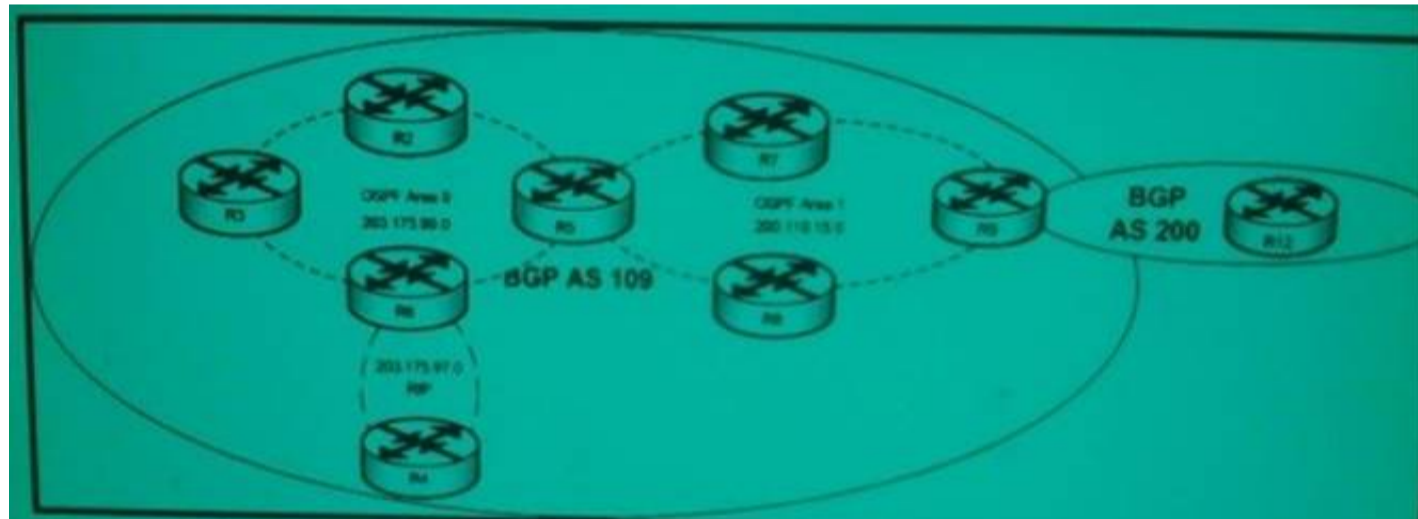
\*Remaining MPLS EXP values for ISP A internal use

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

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

**Answer: D**

#### NEW QUESTION 86



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 88

In a network function virtualization reference architecture, which two statement about virtualized network function are true?(Choose two)

- A. VNF is the totality of all hardware and software components that build up the NFV environment
- B. One VNF can be deployed over multiple VMs, where each VM hosts a single component of the VNF
- C. VNF performs the orchestration and lifecycle management of the software resources that supports the virtualized infrastructure
- D. VNF is a virtualization of a legacy network function
- E. VNF functionality includes control and management of the compute, storage, and network resources in the NFV framework

**Answer: BD**

#### NEW QUESTION 93

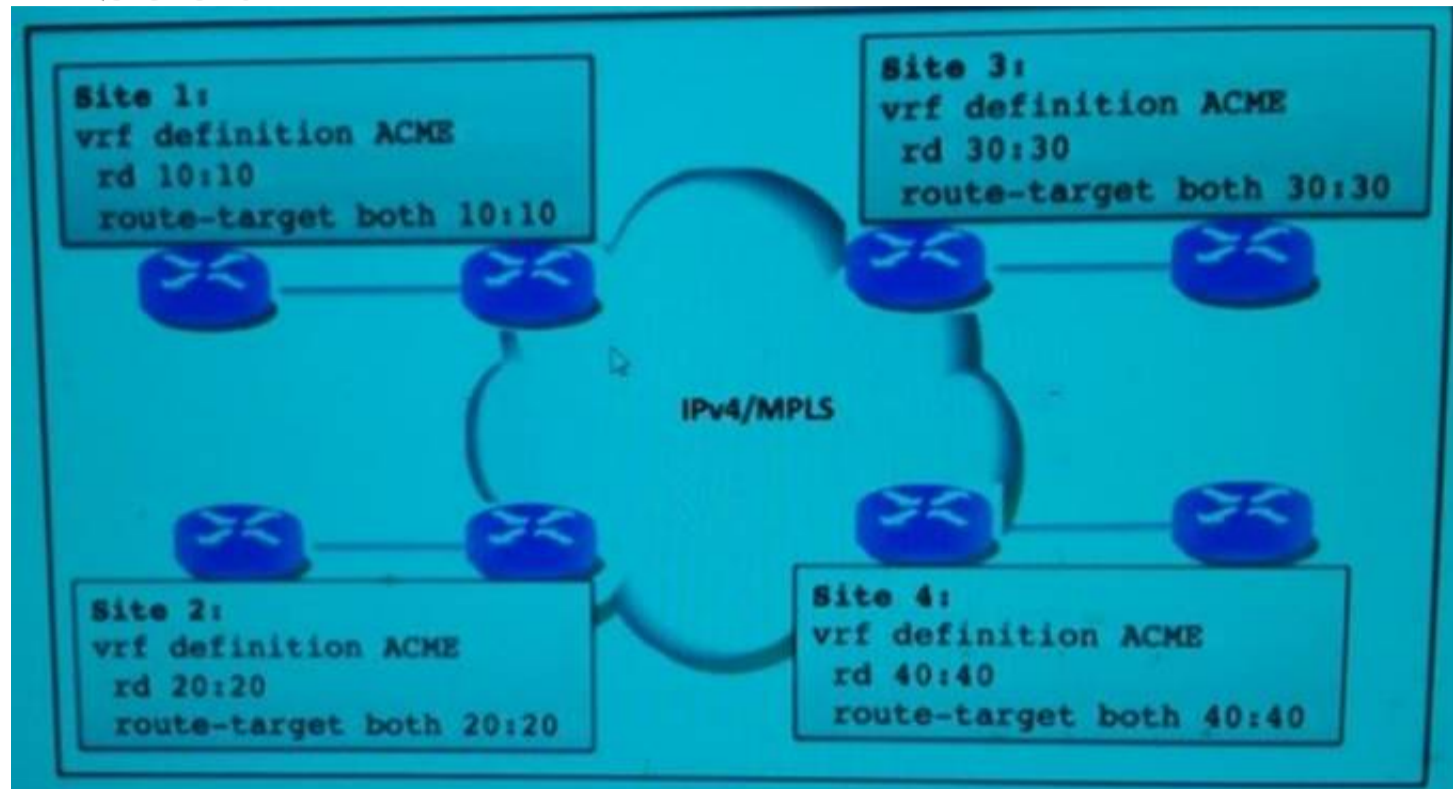
What ISIS TLVs are used to support MPLS traffic Engineering? ( Choose three)

- 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 97**

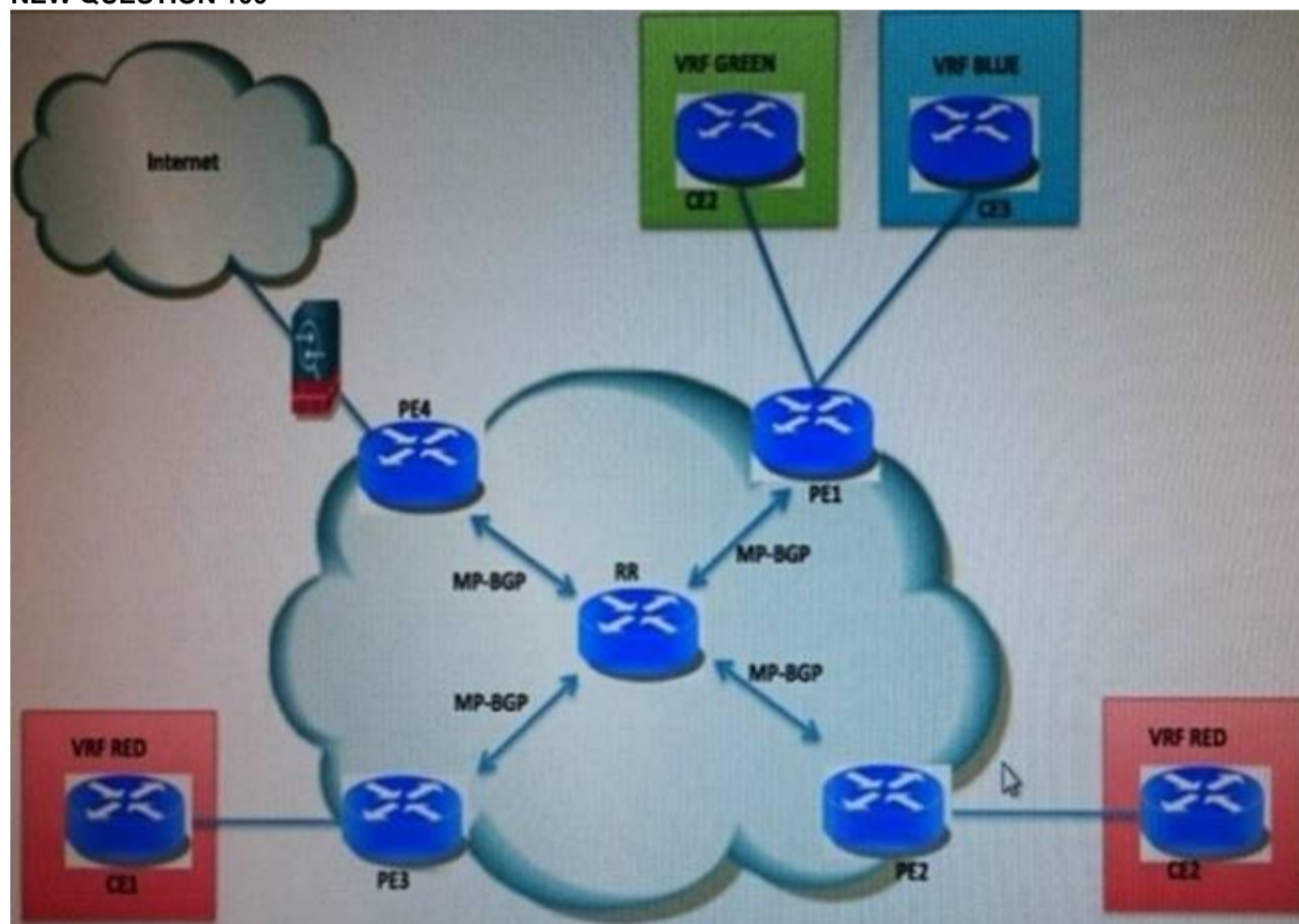


Refer to the exhibit. A company has four office locations, which are identified as 1,2,3 and 4. The PE routers at these locations have assigned RDs of 10:10 , 20:20, 30:30 and 40:40, respectively Locations 1 and 3 need to share routing information  
 Which set of configurations allows for this requirement?

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

**Answer:** E

**NEW QUESTION 100**



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 101

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 103

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 106

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

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

**Answer:** D

#### NEW QUESTION 109

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

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

**Answer:** C

#### NEW QUESTION 111

Which operational metric to measure the health of the incident management process is critical?

- A. A number of successful changes
- B. Number of incidents per severity level
- C. Mean time to restore service
- D. Mean time to resolve incidents

**Answer:** A

#### NEW QUESTION 114

```

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 119

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 124

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

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

**Answer: A**

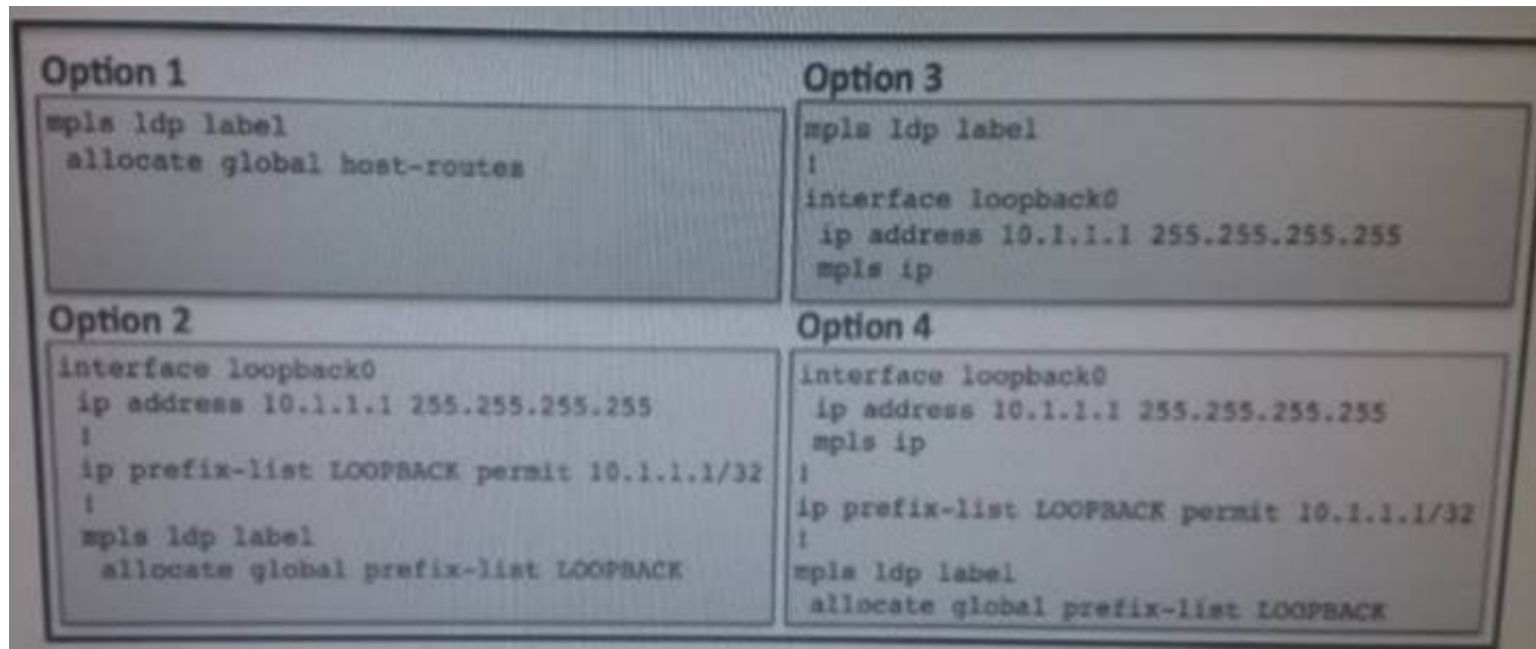
#### NEW QUESTION 125

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 130



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

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

**Answer:** A

#### NEW QUESTION 133

Which protocol supports exporting of fields extracted from BAR?

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

**Answer:** D

#### NEW QUESTION 135

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

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

**Answer:** E

#### NEW QUESTION 137

A service provider is implementing an nV Edge system with the two ASR 9000 chassis has two RSPs. Which two cabling methods reflect the minimum configuration needed for full synchronization between the two Cisco ASR 9000 chassis? (Choose two)

- A. Create the single virtual control plane that connect the two RSPs between the two chassis via Layer 2 connections
- B. Create the IRL connections between the two chassis via Layer 3 connections using the EOBC 10 Gbps ports of the RSPs
- C. Create the IRL connections between the two chassis via Layer 3 connections using the ports of the line cards
- D. Create the single virtual control plane that connect the two chassis via Layer 3 connections using the 10 Gbps ports of the line cards
- E. Create the IRL connections between the two chassis via Layer 1 connections using the 10 Gbps ports of the line cards
- F. Create the single virtual control plane that connect the two chassis via 100 Gbps bundle interfaces
- G. Create the IRL connections between the two chassis via Layer 1 connections using the EOBC 10 Gbps ports of the RSPs

**Answer:** AE

#### NEW QUESTION 138

Which OSPFv3 LSA is never Flooded beyond the link?

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

**Answer:** C

#### NEW QUESTION 142

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

- A. OSPF or IS-IS
- B. BGP-LS
- C. OpenFlow
- D. PCEP

**Answer:** C

#### NEW QUESTION 147

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

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

**Answer:** D

#### NEW QUESTION 148

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 153

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 158

An operations engineer identifies a device is receiving a section loss signal alarm for a SONET link. Which action does the engineer perform?

- A. Verify that the framing format on the port matches the format configured on the line
- B. Verify that the alarm exists on the remote site
- C. Verify that the light level for the POS interface is within acceptable limits
- D. Verify the line status at the remote end of the link

**Answer:** C

#### NEW QUESTION 159

A network engineer configures redistribution of OSPF intra-area routes into MP-BGP (super backbone) to preserve the continuity of the OSPF design in an MPLS Layer 3 VPN scenario From the CE perspective, what is the effect?

- A. All intra-area routes are converted to external routes
- B. All interarea routes are lost
- C. All intra-area routes are converted to interarea routes
- D. AU intra-area routes are lost

**Answer:** C

#### NEW QUESTION 160

Which description is true about how remote IP fast Reroute addresses failures in the ring topologies?

- A. Routers establish a targeted LDP session with the furthest router that is in a PQ space, It requires an equal cost path to both edge ring routers
- B. Routers establish an MPLS TE tunnel with both ring edge routers
- C. Routers establish a targeted LDP session with the closest router that is in a PQ space
- D. Routers establish a GRE tunnel with the furthest PQ node in the ring
- E. Routers establish an MPLS TE tunnel with all PQ nodes in the ring
- F. Routers establish a GRE tunnel with the closest PQ node in the ring

**Answer:** C

#### NEW QUESTION 161

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 164

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 166

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 168

Which option is the Cisco cloud management platform that is designed for enterprise and public sector IT organizations to help build private and hybrid clouds?

- A. Cisco Cloud Orchestrator
- B. Cisco UCS Director
- C. Cisco Intercloud Fabric
- D. Cisco Intelligent Automation for Cloud

**Answer:** D

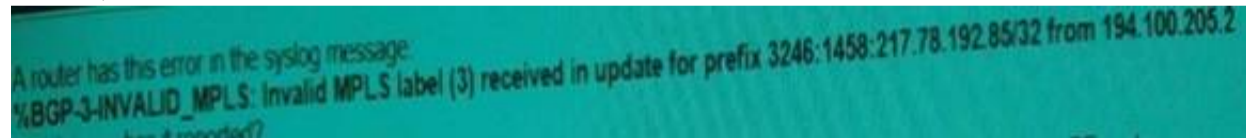
#### NEW QUESTION 172

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 173



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 177

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 180

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

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

**Answer:** A

#### NEW QUESTION 184

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 187

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

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

**Answer:** DE

#### NEW QUESTION 191

A service provider offers four classes of service for MPLS VPN customer with the following IPP/EXP values

- A. voice=5i
- B. video=4ii
- C. priority-data =3i
- D. best-effort data=0The service provider also supports multicast VPN services in the priority data and best- effort classe
- E. Multicast VPN is implemented as a draft-rosen profil
- F. On a P router, in the MPLS core, the ingres
- G. QoS policy-map must classify all incoming packets, so that different classes of traffic can be properly handled in fabric queues and egress queue
- H. All types of packets in the core network must be coveredWhich ingress classification offers the optimal performance and provides the minimum number of actions that match the service provider QoS requirements?A.class-map match-any VOICE match mpls experiment topmost 5 class-map match-any VIDEO match mpls experiment topmost 4 class-map match-any CONTROL match mpls experiment topmost 6 class-map match-any PRIORITY match mpls experimental topmost 3!policy-map INGRESS class VOICESet qos-group 5 class VIDEO set qos-group 4class CONTROL set qos-group 6 class PRIORITY set qos-group 3 class class-default B.class-map match-any VOICE match mpls experiment topmost 5 class-map match-any VIDEO match mpls experiment topmost 4 class-map match-any CONTROL match mpls experiment topmost 6 7match ip precedence ipv4 internet network class-map match-any PRIORITYmatch mpls experimental topmost 3 match ip precedence ipv4 flash!policy-map INGRESSclass VOICE set qos-group 5 class VIDEO set qos-group 4class CONTROL set qos-group 6 class PRIORITY set qos-group 3 class class-default C.class-map match-any VOICE match mpls experiment topmost 5 match ip precedence ipv4 critical class-map match-any VIDEO match mpls experiment topmost 4match ip precedence ipv4 flash-override class-map match-any PRIORITYmatch mpls experimental topmost 3 match ip precedence ipv4 flash!policy-map INGRESS class VOICESet qos-group 5 class VIDEO set qos-group 4 class PRIORITY set qos-group 3class class-default

**Answer:** C

#### NEW QUESTION 193

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 198

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 199

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 201

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

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

Which recommendation is the network engineer defining?

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

**Answer:** D

#### NEW QUESTION 205

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 208

A service provider is considering investing in a services chaining solution. Which three services chaining's can be recommended? (Choose two)

- A. Firewall
- B. Authoritative DNS
- C. ACGNAT
- D. WAAS
- E. VXLA
- F. Email

**Answer:** AC

#### NEW QUESTION 213

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 214

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 215**

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 218**

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 220**

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

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

**Answer:** A

**NEW QUESTION 221**

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 225**

What are the four key design requirements for mobile IP backhaul? (Choose four)

- A. X2 interface turning point
- B. bandwidth
- C. Layer 2 Tunneling
- D. native IPv6 support
- E. DiffServQoS
- F. MPLS-enabled interface
- G. network timing distribution and recovery
- H. mandatory Layer 3 access up to a cell site

**Answer:** CDGH

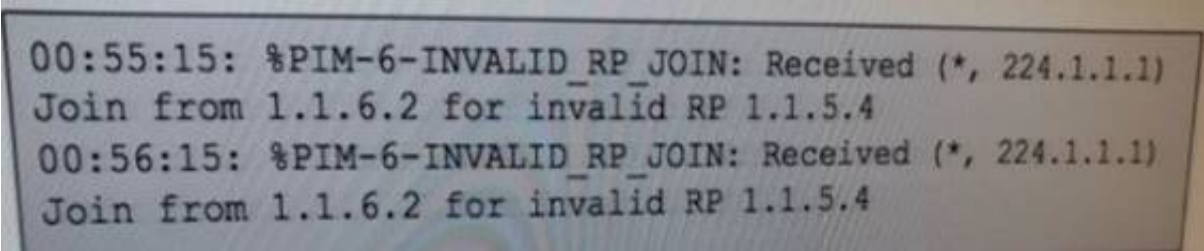
**NEW QUESTION 230**

Which technology enables operations to move the functionality of networking devices such as routers and firewalls away from proprietary hardware to servers and off-the-shelf commercially available purpose-built hardware?

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

Answer: A

NEW QUESTION 232



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 237

DRAG DROP

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

IP Event Dampening	verify the integrity of the wire
UDLD	prevent impact from a constantly bouncing interface
Carrier Delay	prevent impact from a very small interface state flaps
Keepalives	provides fast peer failure detection independently of all media types and encapsulation technologies
BFD	detect when traffic is received by its neighbor but traffic from the neighbor is not received by the local device

Answer:

Explanation:

IP Event Dampening	Keepalives
UDLD	IP Event Dampening
Carrier Delay	Carrier Delay
Keepalives	BFD
BFD	UDLD

NEW QUESTION 239

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 243**

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 245**

What are two advantages of Cisco IOS XR Software over Cisco IOS Software? (Choose two.)

- A. a configuration that is grouped by interface
- B. a configuration that is grouped by process
- C. one-stage configuration
- D. a monolithic OS
- E. a two-stage configuration

**Answer:** BE

**NEW QUESTION 249**

In which way does SyncE propagate the clocking information in synchronous mode over an Ethernet link?

- A. It encodes the clock information into IEEE 1588v2 packets
- B. It uses the communication channel conveying the clock information that is called SSM
- C. It uses dedicated ESMC frames that are sent at regular intervals
- D. It uses Layer 2 multicast frames that are sent to 01:00:5E:00:01:01

**Answer:** B

**NEW QUESTION 252**

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 257

DRAG DROP

Drag and drop the characteristics of the MVPN on the left onto the correct MVPN profile on the right

PIM sparse mode is supported

PIM SSM support only

link protection support only

PIM-trees are used in the core

LSPs must originate and terminate in the same IGP area

support inter-AS option C

Profile 3- Rosen GRE with BGP-AD

Profile 8- Global P2MP TE

Answer:

Explanation: Profile 3 - with Rosen GRE with BGP-AD

- 1. PIM sparse mode is supported
- 2. Support Inter-AS option C
- 3. PIM-trees are used in the core

Profile 8 - Global P2MP TE

- 1. PIM SSM support only
- 2. Link protection support only
- 3. LSPs must originate and terminate in the same IGP area

NEW QUESTION 262

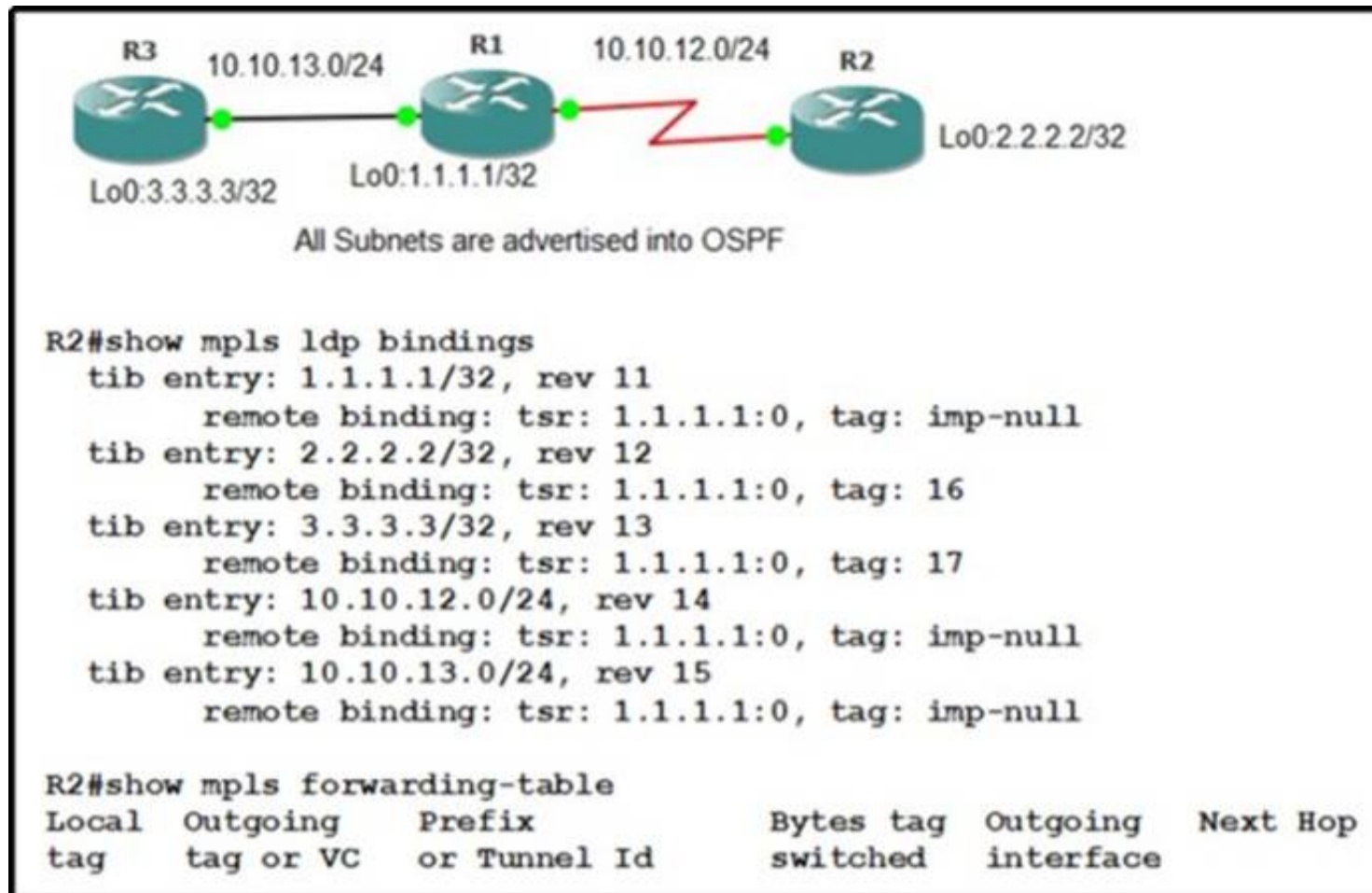
Which statement is FALSE concerning the interleave depth value?

- A. A higher interleave depth provides more protection from burst of noise on the HFC network
- B. Higher interleave depth increase downstream latency.
- C. Lower interleave depth cause some packet loss on typical HFC networks
- D. None ofthe above

Answer: D

NEW QUESTION 267

Refer to the exhibit.



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

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

**Answer: B**

#### NEW QUESTION 272

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

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

**Answer: C**

#### NEW QUESTION 277

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 281

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

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

**Answer: D**

#### NEW QUESTION 282

In an inter-AS L3VPN Option B, the PE-ASBRs use which routing table to store all the VPN routes that need to be exchanged?

- A. IGP table
- B. BGP table
- C. VRP routing table

D. global routing table

**Answer:** B

**NEW QUESTION 283**

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 286**

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 287**

A service provider has a requirement to prevent and prevent spoofing attacks by verifying the reachability of the source address in a packet that is forwarded into its network. Which method must the service provider use?

- A. CoPP
- B. iACL
- C. uRPF
- D. RTBH

**Answer:** C

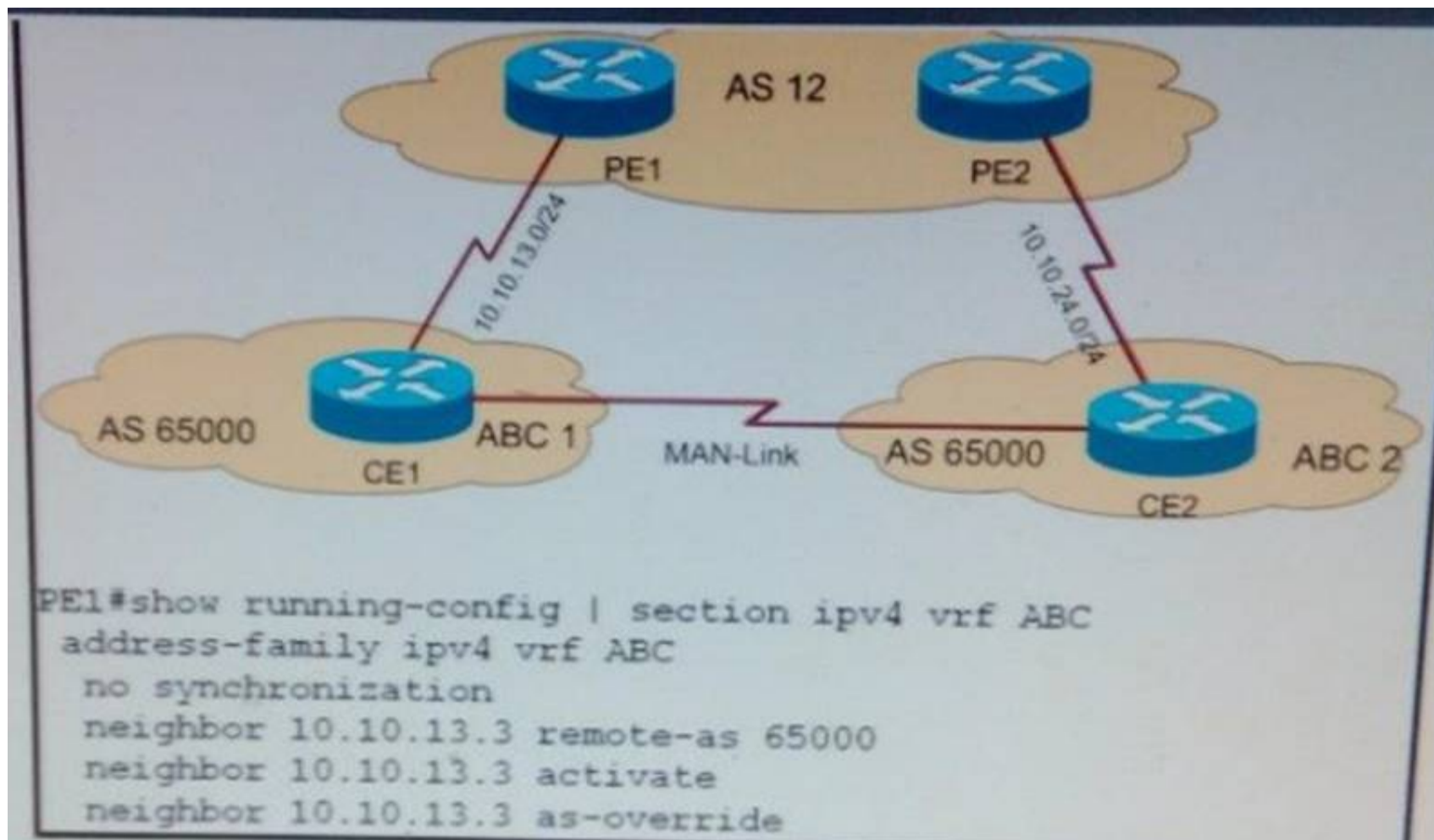
**NEW QUESTION 292**

Which two options describe the order of preference of attributes when some or all are applied to one neighbor in BGP? (Choose two.)

- A. For inbound updates, the order of preference is route-map, filter-list, prefix-list, distribute-list.
- B. For inbound updates, the order of preference is filter-list, route-map, prefix-list, distribute-list.
- C. For inbound updates, the order of preference is prefix-list, route-map, filter-list, distribute-list.
- D. For outbound updates, the order of preference is filter-list, prefix-list, distribute-list, route-map.
- E. For outbound updates, the order of preference is prefix-list, distribute-list, filter-list, route-map.
- F. For outbound updates, the order of preference is route-map, prefix-list, distribute-list, filter-list.

**Answer:** AE

**NEW QUESTION 296**



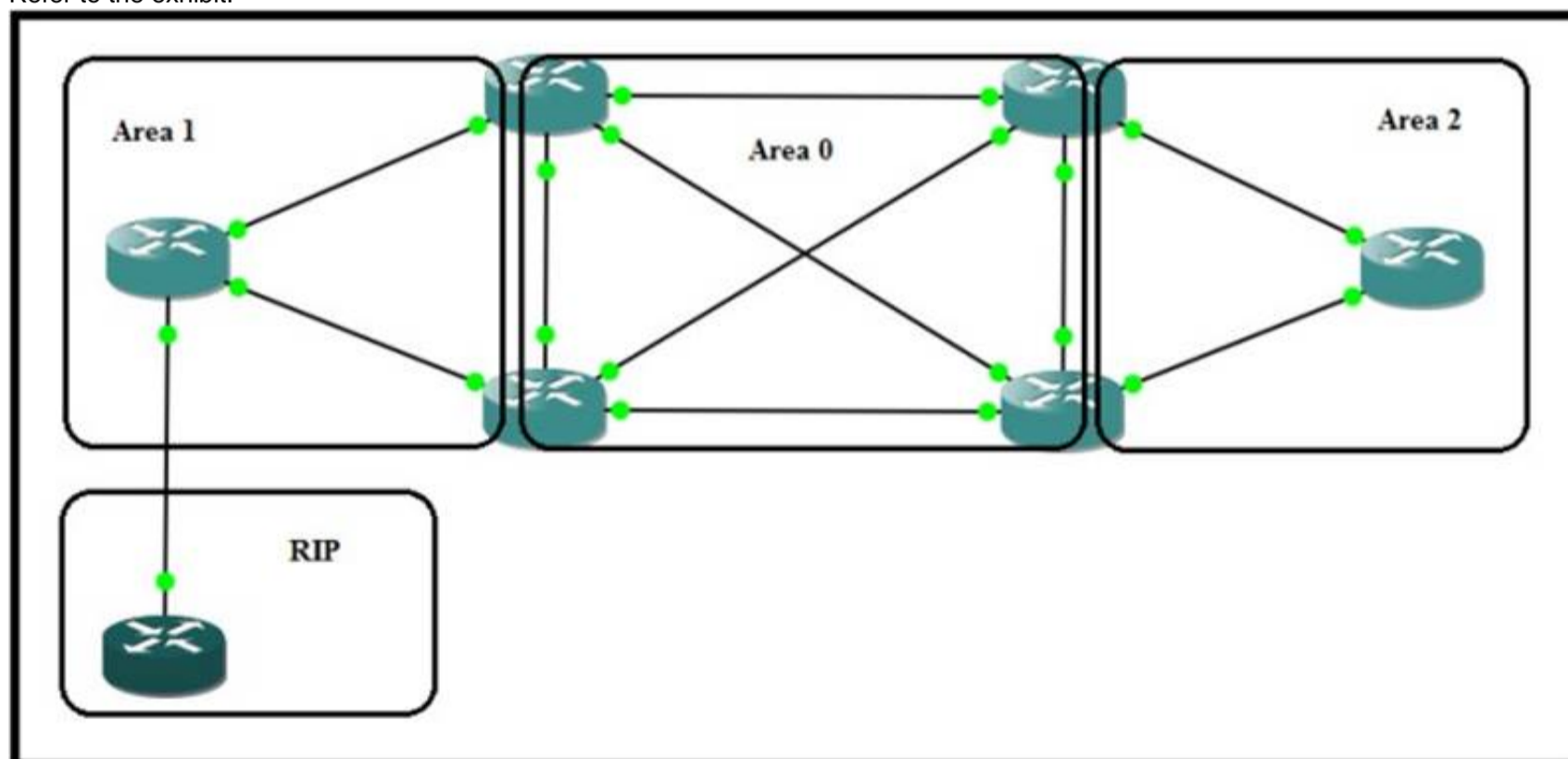
Refer to the exhibit. An MPLS VPN service was provisioned for customer ABC both sites must be communication to each other primarily over the wan link with no traffic over the wan circuits PE1 has the same configuration as PE2 which two commands can be configure on the PEs to accomplish the desired goal?(Choose two)

- A. Under sub interface IP VRF SITEMAP SoO with the same SoO value.
- B. no neighbor <CE-IP address> AS-override.
- C. Neighbor<CE-IP address> route-map SoO in with the same SoO value.
- D. Neighbor<CE-IP address> route-map SoO in with a different SoO value.
- E. Neighbor<CE-IP address> route-map SoOout with the same SoO value.

**Answer: BC**

#### NEW QUESTION 301

Refer to the exhibit.



RIP network 192.168.1.0/24 is redistributed in OSPF Area 1; both Area 1 and Area 2 are configured as NSSAs. Which three statements describe the OSPF behavior in this scenario? (Choose three.)

- A. Area 2 does not see the network 192.168.1.0/24 in its link-state database.
- B. Network 192.168.1.0/24 is advertised in a Type 7 LSA in Area 1.
- C. Network 192.168.1.0/24 is advertised in a Type 5 LSA in Area 0.
- D. Network 192.168.1.0/24 is advertised in a Type 7 LSA in Area 0.
- E. ABR between Area 0 and Area 2 converts network 192.168.1.0/24 to a Type 7 LSA.
- F. Network 192.168.1.0/24 is advertised in a Type 5 LSA in Area 2.

**Answer: ABC**

#### NEW QUESTION 303

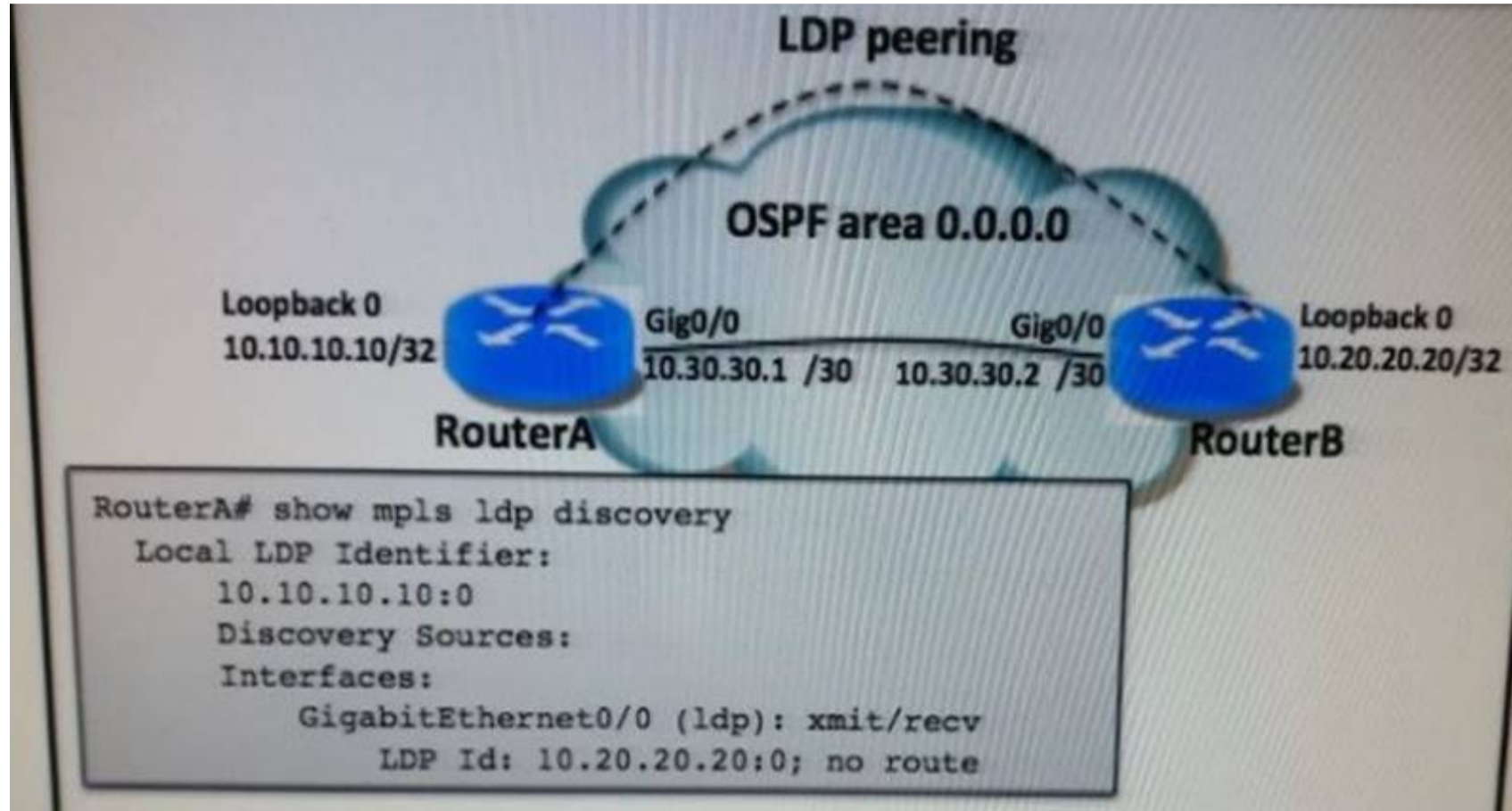
An engineer is troubleshooting Precision Time Protocol on Cisco ASR 9000 router and noticed the protocol is running in a Multicast mode. Which two results

regarding the messages can the engineer expect? (Choose two)

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

**Answer:** CD

**NEW QUESTION 305**



Refer to the exhibit. Router A is not receiving any label information from Router B. Which two different solutions could fix this issues? (Choose two)

- A. C:\Users\tgt\Desktop\Data\Untitled.jpg
- B. C:\Users\tgt\Desktop\Data\Untitled.jpg
- C. C:\Users\tgt\Desktop\Data\Untitled.jpg
- D. C:\Users\tgt\Desktop\Data\Untitled.jpg
- E. C:\Users\tgt\Desktop\Data\Untitled.jpg
- F. C:\Users\tgt\Desktop\Data\Untitled.jpg
- G. Option A
- H. Option B
- I. Option C
- J. Option D
- K. Option E
- L. Option F

**Answer:** DF

**NEW QUESTION 306**

What is the purpose of Route Target Constraint?

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

**Answer:** C

**NEW QUESTION 310**

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 311**  
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

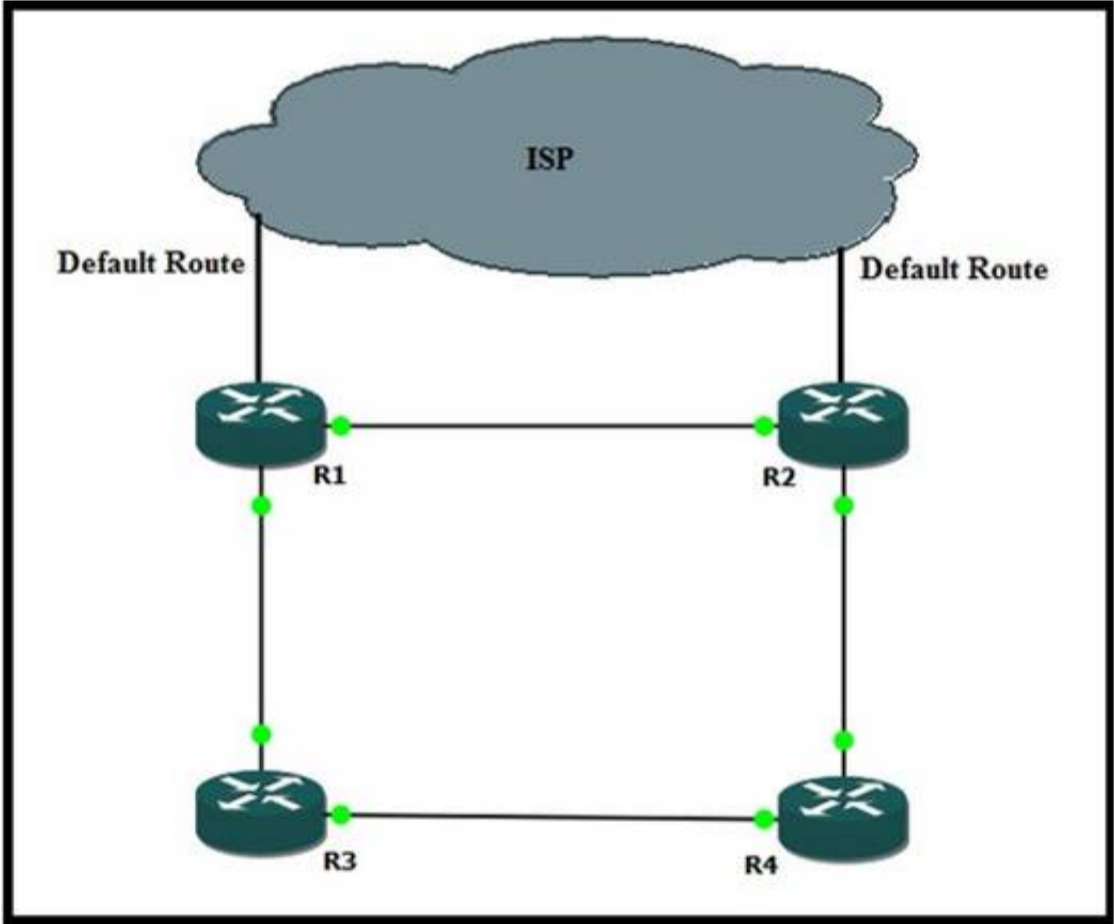
Answer:

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 313**  
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 315**  
DRAG DROP

According to the Broadband TR-101 specification, drag and drop the connectivity models on the right onto the correct characteristic on the left

nontrunk UNI VLAN model	the residential subscribers VDSL bridged or routed CPD devices are connected with trunk UNIs
trunk UNI, N:1 VLAN model	maps all subscriber services aggregated by the access node in a shared VLAN
trunk UNI, 1:1 VLAN model	uses each virtual circuit or VLAN on the UNI to map a certain service or group of services
noncompliant access nodes	uses different virtual circuit or VLAN for mapping to Internet access while shared VLAN is used for IPTV

Answer:

Explanation:

nontrunk UNI VLAN model	the residential subscribers VDSL bridged or routed CPD devices are connected with trunk UNIs
trunk UNI, N:1 VLAN model	maps all subscriber services aggregated by the access node in a shared VLAN
trunk UNI, 1:1 VLAN model	uses each virtual circuit or VLAN on the UNI to map a certain service or group of services
noncompliant access nodes	uses different virtual circuit or VLAN for mapping to Internet access while shared VLAN is used for IPTV

NEW QUESTION 319

**Customer**

```

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

```

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

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

Answer: A

NEW QUESTION 320

```
Router A:

configure
interface pos 0/3/0/0
 pos crc 32
 ipv4 address 10.1.1.1/30
 mtu 5550
 no shut
end

Router B:

configure
interface pos 0/3/0/0
 encapsulation ppp
 ipv4 address 10.1.1.2/30
 keepalive 3
 no shut
end
```

Refer to the exhibit. A network engineer is troubleshooting a packet over SONET connection between Router A and Router B. What is causing the line protocol to be down?

- A. The keepalive must be set on both sides
- B. The POS CRC must be set on both sides.
- C. There is an encapsulation mismatch
- D. There is an MTU mismatch.

**Answer:** C

#### NEW QUESTION 321

DRAG DROP

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

Not all

options are used

802.1ad Characteristics	Port Type
used on uplinks	C-UNI
access port only	C-UNI
trunk port only	C-UNI
support customer-tag vlan BPDU	C-UNI
support S-VLAN BPDU, however only one operation default is supported	S-UNI
not sent on trunk port	S-UNI
filtering of BPDUs	S-UNI

**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 323

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 328

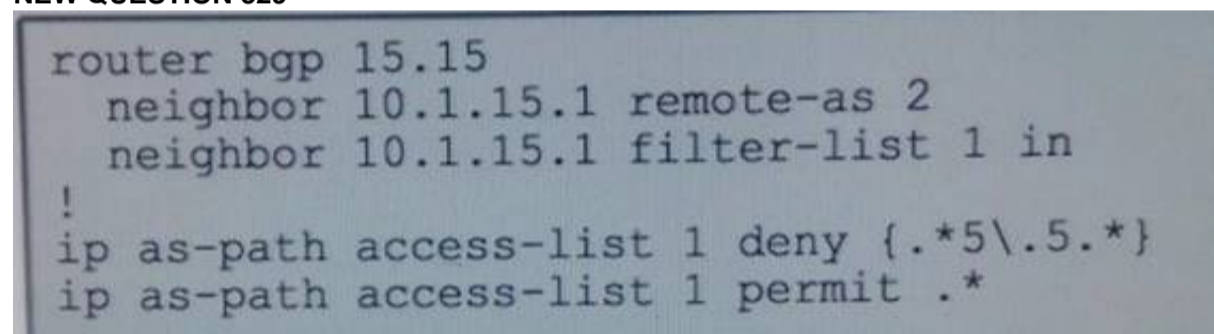
One requirement of MP-BGP is that the NLRI and next hop both should belong to same address family. Similarly, if the route is a VPN route with an RD, the next hop should also be of the same address family.

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 329



```
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 331

VoIP bearer traffic is typically marked to which DSCP value?

- A. af41
- B. af31
- C. 0 (default)
- D. cs7
- E. cs3
- F. ef

**Answer:** F

#### NEW QUESTION 334

```
<configScope
  dn="sys/chassis-1/blade-5/board/cpu-2"
  cookie="<real_cookie>"
  response="yes">
  <outConfigs>
    <processorEnvStats
      dn="sys/chassis-1/blade-5/board/cpu-2/env-stats"
      inputVoltage="0.058200"
      inputVoltageAvg="0.062080"
      inputVoltageMax="0.077600"
      inputVoltageMin="0.058200"
      intervals="58982460"
      suspect="no"
      temperature="23.000000"
      temperatureAvg="23.000000"
      temperatureMax="23.000000"
      temperatureMin="23.000000"
      thresholded=""
      timeCollected="2009-09-23T12:40:55"
      update="327680"/>
    </outConfigs>
  </configScope>
```

Refer to the exhibit. Which data format is used in this script?

- A. JavaScript
- B. API
- C. XML
- D. YANG

**Answer: C**

#### NEW QUESTION 338

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

- A. Support more than 500 GRE tunnels per system for multicast.
- B. Transport header support is limited to IPv4.
- C. Transport header support is limited to IPv6.
- D. IPV4 multicast for GRE unicast tunnels is not supported.

**Answer: B**

#### NEW QUESTION 340

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 341

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

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

**Answer: D**

#### NEW QUESTION 343

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

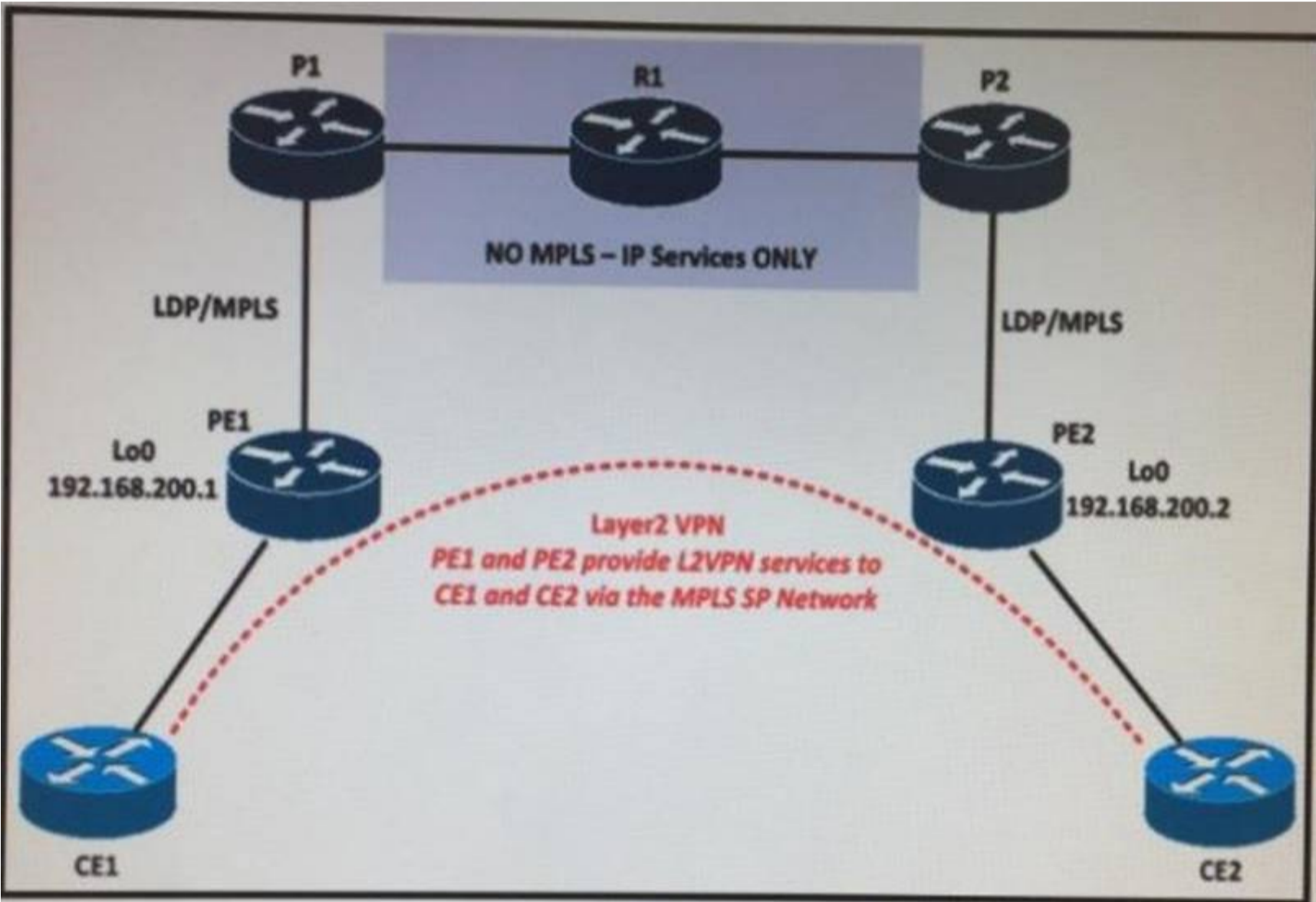
- A. The two routers are not on the same subnet.
- B. IPv6 is not enabled on R2 Fast Ethernet 0/0.
- C. There is no reachability to 1.1.1.1 or 2.2.2.2.
- D. The OSPFv3 processes do not match.
- E. The instance IDs do not match.

**Answer:** E

**NEW QUESTION 346**

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 349

A layer 2 aggregation deployed via IEEE 802.1D has many nodes on a single link. A DHCP version 6 server cannot recognize how the clients are attached to a network. Which solution provides a client identification to the DHCPv6 in this scenario?

- A. LDRA
- B. DHCPv6 relay agent
- C. DHCP snooping
- D. Broadband Forum Trunk N:1

**Answer:** A

#### NEW QUESTION 350

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

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

**Answer:** B

#### NEW QUESTION 353

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. Inter-autonomous 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 systems
- I. However, inter-autonomous 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 357

Which three IS-IS TLVs are used to support MPLS traffic engineering? (Choose three).

- A. extended TLV 22
- B. extended TLV 23
- C. extended TLV 134
- D. extended TLV 135
- E. extended TLV 136
- F. extended TLV 138

**Answer:** ACD

#### NEW QUESTION 361

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

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

**Answer:** A

**NEW QUESTION 362**

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 366**

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 369**

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 370**

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

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

**Answer:** C

**NEW QUESTION 372**

DRAG DROP

Drag the Address Family Identifier number on the left to the correct protocol on the right.

1	DNS
2	L2VPN
16	IPv6
18	IPv4
25	AS number

**Answer:**

**Explanation:**

Drag the Address Family Identifier number on the left to the correct protocol on the right.

1	16
2	25
16	2
18	1
25	18

NEW QUESTION 375

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

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

Answer: D

NEW QUESTION 379

DRAG DROP

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

DLCI	Ethernet
NLPID	ATM
Label	Frame Relay
VPI	
VCI	
VPI and VCI	
VLAN ID	

Answer:

Explanation:

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

DLCI	Label
NLPID	VPI and VCI
Label	DLCI
VPI	
VCI	
VPI and VCI	
VLAN ID	

NEW QUESTION 380

Which statement about 6PE is true?

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

Answer: B

**NEW QUESTION 381**

DRAG DROP

Drag and Drop the SNMP message type on the left onto the corresponding functionality on the right?

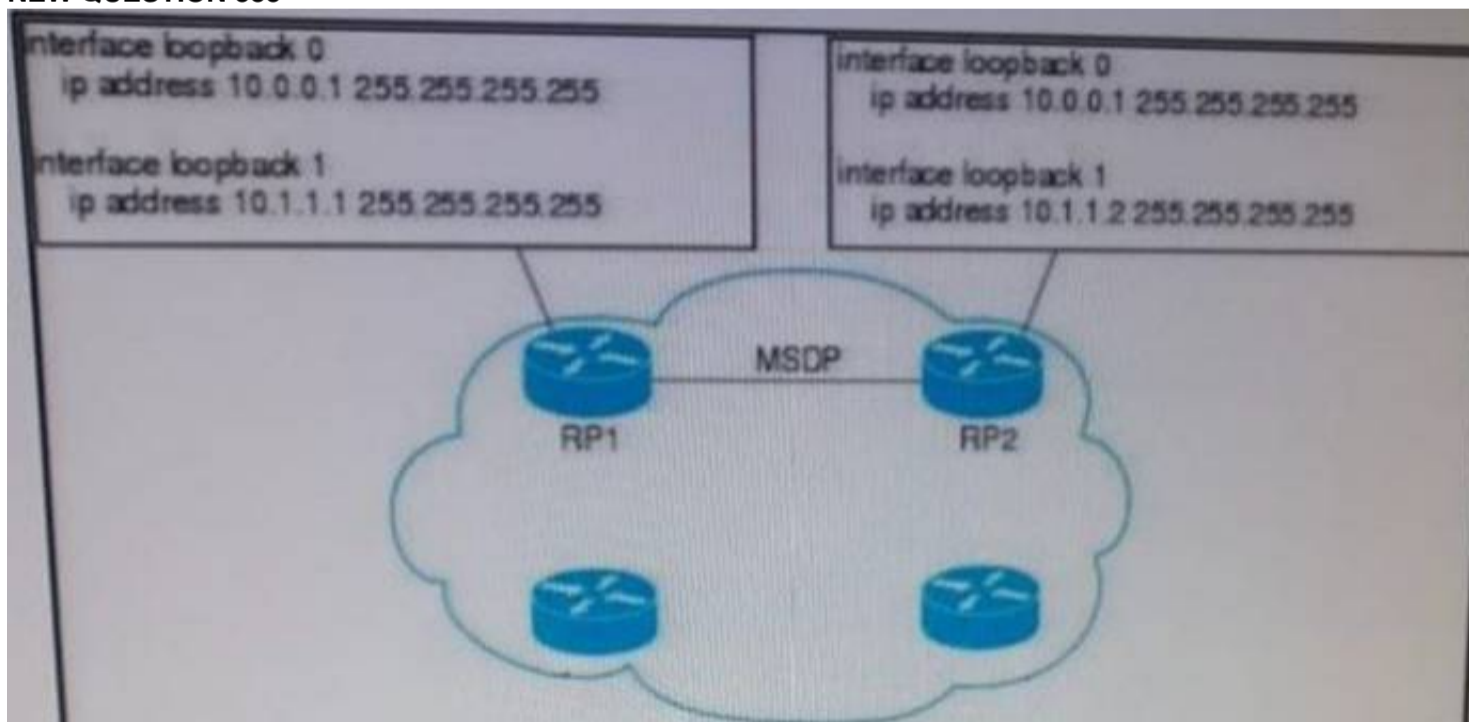
GET RESPONSE	Retrieve a specific piece of network information.
TRAP	Iteratively retrieve a sequence of information.
GET REQUEST	Send information to a manager in response to a request.
INFORM	Initialize or change the value of a management object.
GETNEXT REQUEST	Report an alert or other asynchronous event to the manager.
SET REQUEST	Retrieve a sequence of information as a faster alternative.
GETBULK	An acknowledged version used in SNMP messaging.

Answer:

Explanation:

GET RESPONSE	GETBULK
TRAP	GET REQUEST
GET REQUEST	GET RESPONSE
INFORM	SET REQUEST
GETNEXT REQUEST	TRAP
SET REQUEST	GETNEXT REQUEST
GETBULK	INFORM

**NEW QUESTION 383**



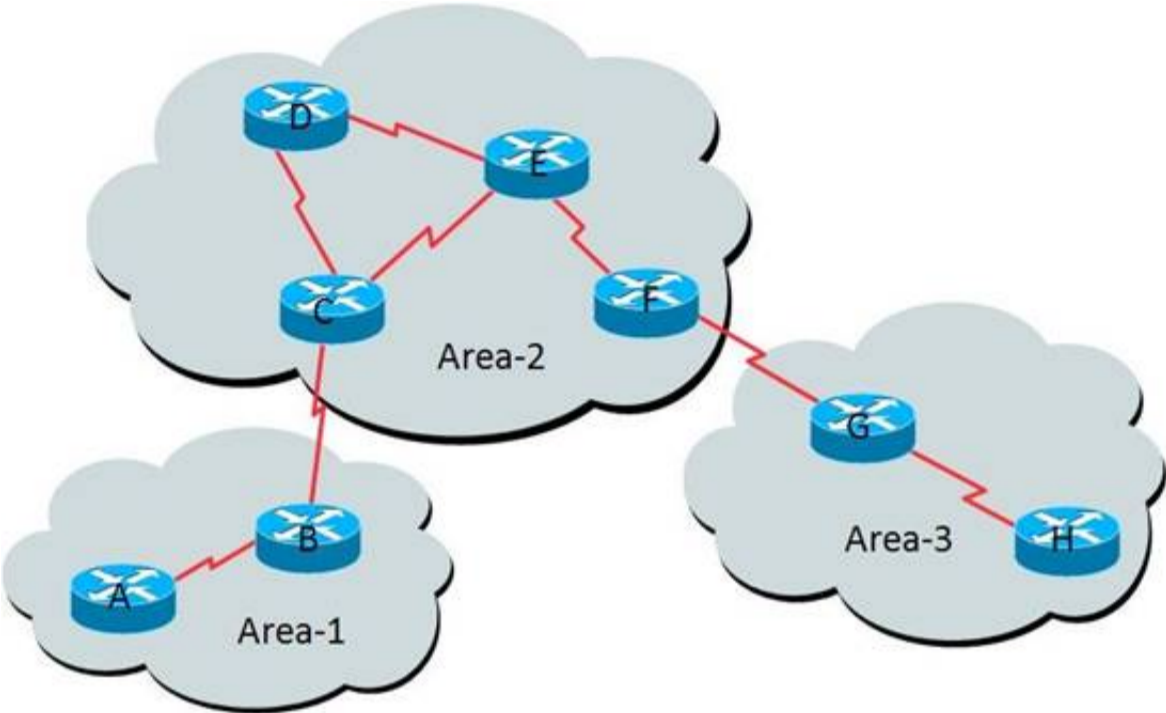
Refer to the exhibit. All routers are running Cisco IOS software. Which configuration enables PIM Anycast RP on RP1?

- 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 385  
Refer to the exhibit.



All routers are running IS-IS. Which three routers can be Level 1 Only routers? (Choose three.)

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

Answer: ADH

NEW QUESTION 386  
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

connect name serial-interface DLCI I2transport

frame-relay switching

xconnect IP address circuit-id pw-class name

pseudowire-class name

interworking

frame-relay switching

pseudowire-class name

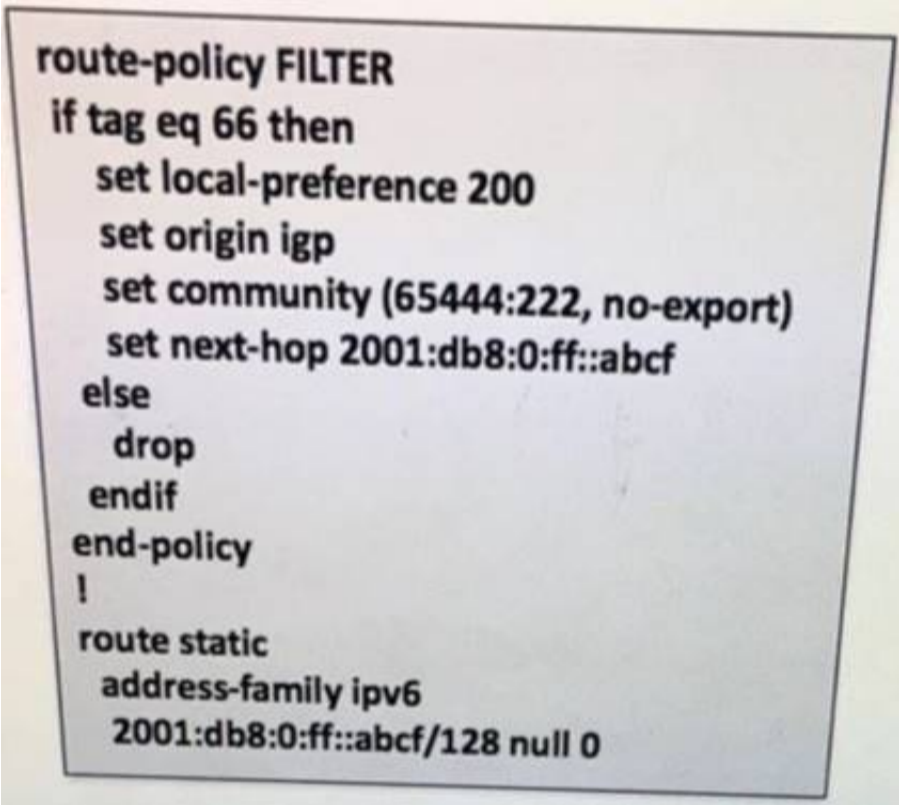
encapsulation mpls

interworking

connect name serial-interface DLCI I2transport

xconnect IP address circuit-id pw-class name

NEW QUESTION 387



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

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

Answer: D

NEW QUESTION 391

DRAG DROP

Drag the actions on the left to the correct steps on the right to show how to perform an IOS-XR upgrade.

Install deactivate

Install commit

Install remove

Install upgrade

Install activate

Install add

Step 1

Step 2

Step 3

Step 4

Step 5

Step 6

Answer:

Explanation:

Drag the actions on the left to the correct steps on the right to show how to perform an IOS-XR upgrade.

Install deactivate	Install upgrade
Install commit	Install add
Install remove	Install activate
Install upgrade	Install commit
Install activate	Install deactivate
Install add	Install remove

**NEW QUESTION 395**

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 398**

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 403**

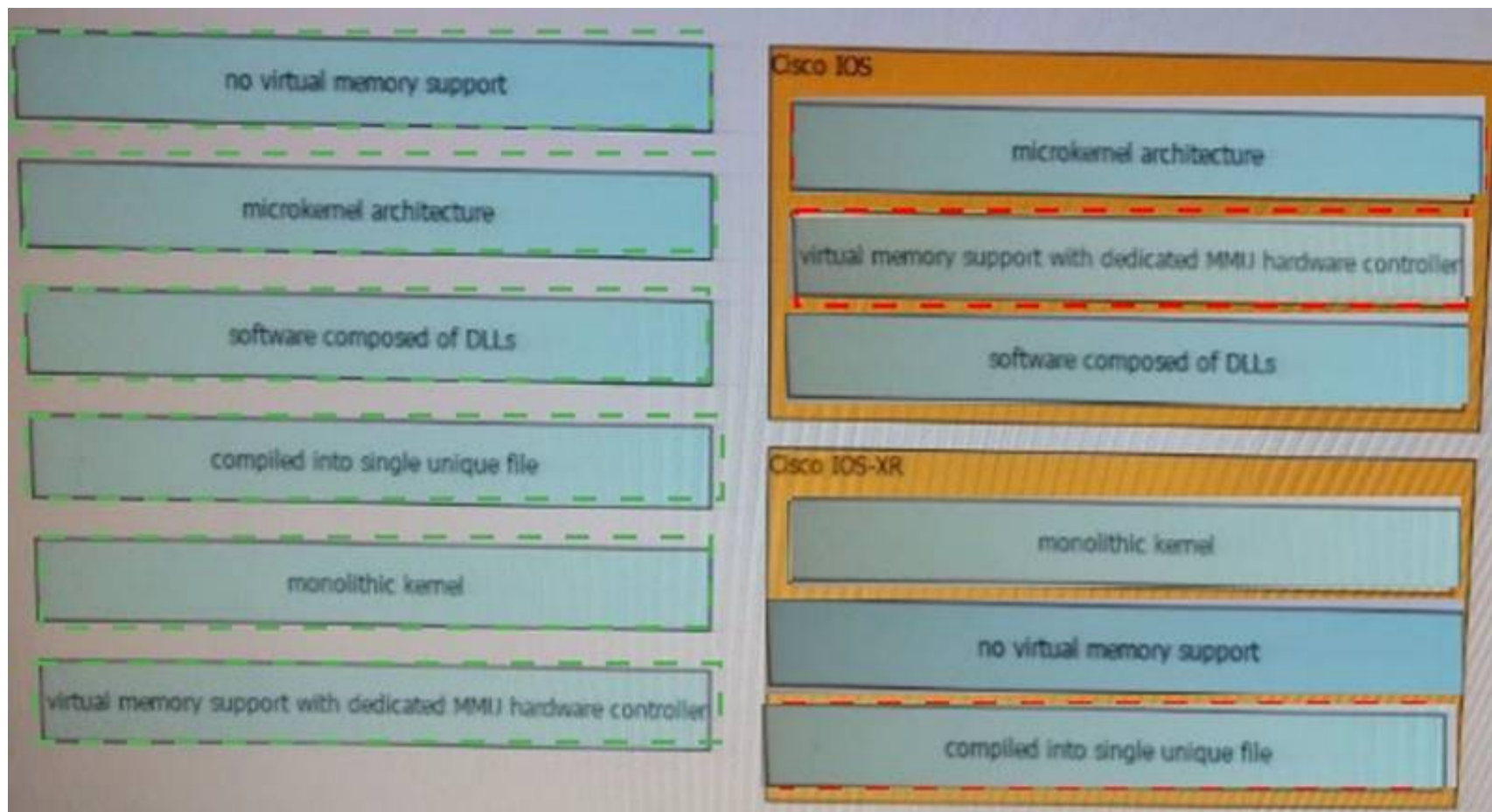
DRAG DROP

Drag and drop the characteristics of Cisco IOS and Cisco IOS XR from the left onto the correct kernel, memory management, and software packaging categories on the right

no virtual memory support	<b>Cisco IOS</b> <ul style="list-style-type: none"><li>IOS - Kernel and Scheduling</li><li>IOS - Memory Management</li><li>IOS - Software Packaging</li></ul>
microkernel architecture	
software composed of DLLs	
compiled into single unique file	<b>Cisco IOS-XR</b> <ul style="list-style-type: none"><li>XR - Kernel and Scheduling</li><li>XR - Memory Management</li><li>XR - Software Packaging</li></ul>
monolithic kernel	
virtual memory support with dedicated MMU hardware controller	

Answer:

Explanation:



#### NEW QUESTION 405

GMPLS is based upon Non-Packet-based devices

- A. True
- B. False

**Answer: A**

#### NEW QUESTION 407

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 409

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 412

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

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

**Answer: ABC**

#### NEW QUESTION 413

```

PE1
-----

router bgp 65000
 address-family ipv4 vrf A
  redistribute rip

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

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

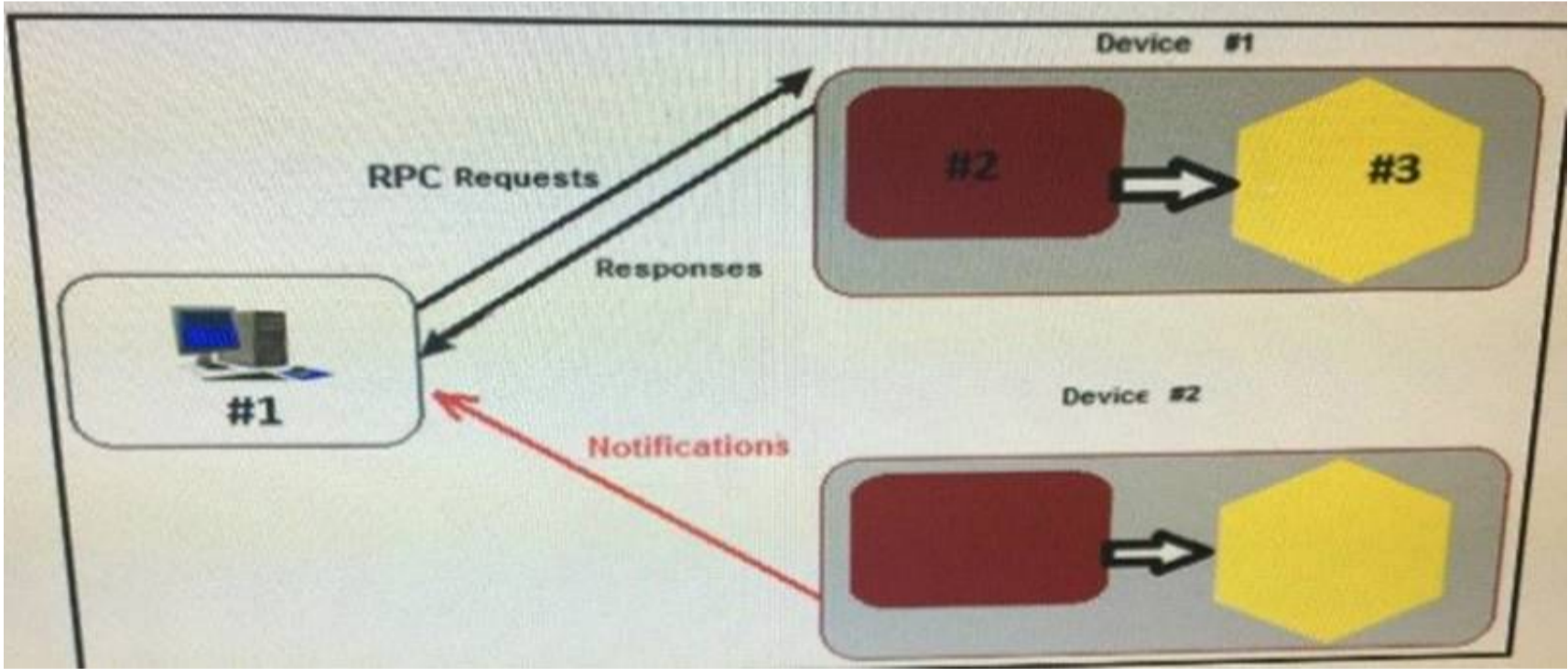
- A.  
 router rip  
 address -family ipv4 vrf A  
 redistribute bgp 65000 metric transparent
- B.  
 router bgp 65000 address -family ipv4 vrf A redistribute rip metric 0
- C.  
 router rip  
 address -family ipv4 vrf A redistribute bgp 65000 metric 0
- D.  
 router bgp 65000 address -family ipv4 vrf A  
 redistribute rip metric transparent

**Answer:**

**NEW QUESTION 417**

DRAG DROP

Refer to the exhibit.

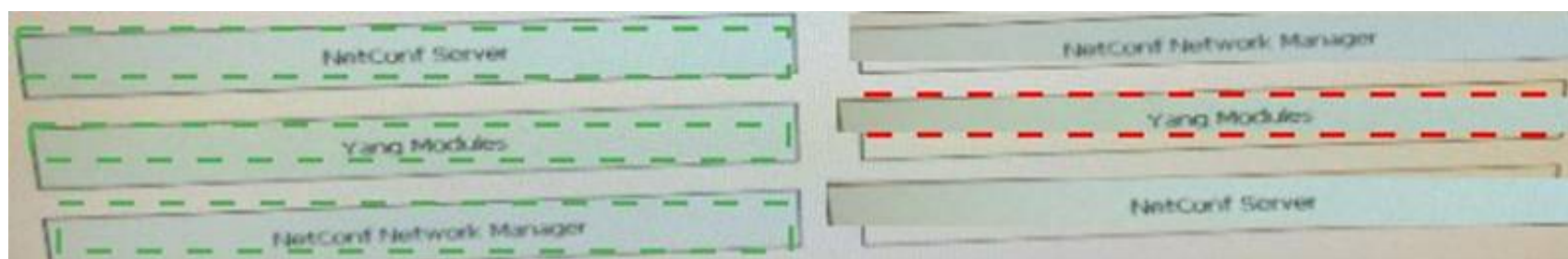


Drag and drop the NetConf architecture components from the left on to the correct network functionality on the right

NetConf Server	#1
Yang Modules	#2
NetConf Network Manager	#3

**Answer:**

**Explanation:**



#### NEW QUESTION 418

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.
- 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 421

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 422

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 424

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

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

**Answer:** BCF

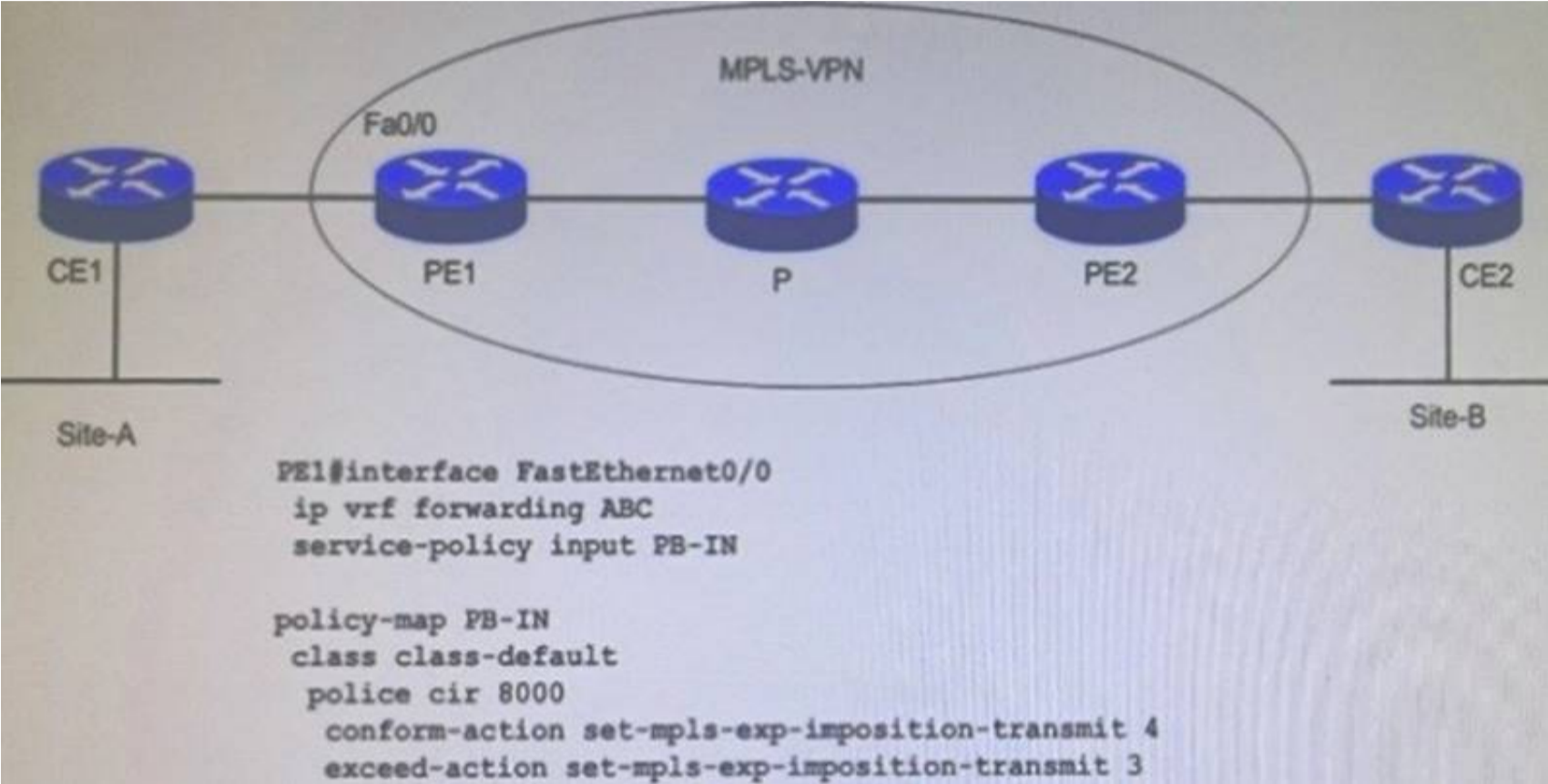
NEW QUESTION 426

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 430



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

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

Answer: B

NEW QUESTION 433

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 436

DRAG DROP

In the Network Function Virtualization context, drag and drop the network functions and characteristics on the left to the right where they are better performed

unpredictable traffic

mostly predictable traffic

stateless functions

stateful functions

low to med throughput

high throughput/bandwidth

IPv6/v4,MPLS,VPNs,optical

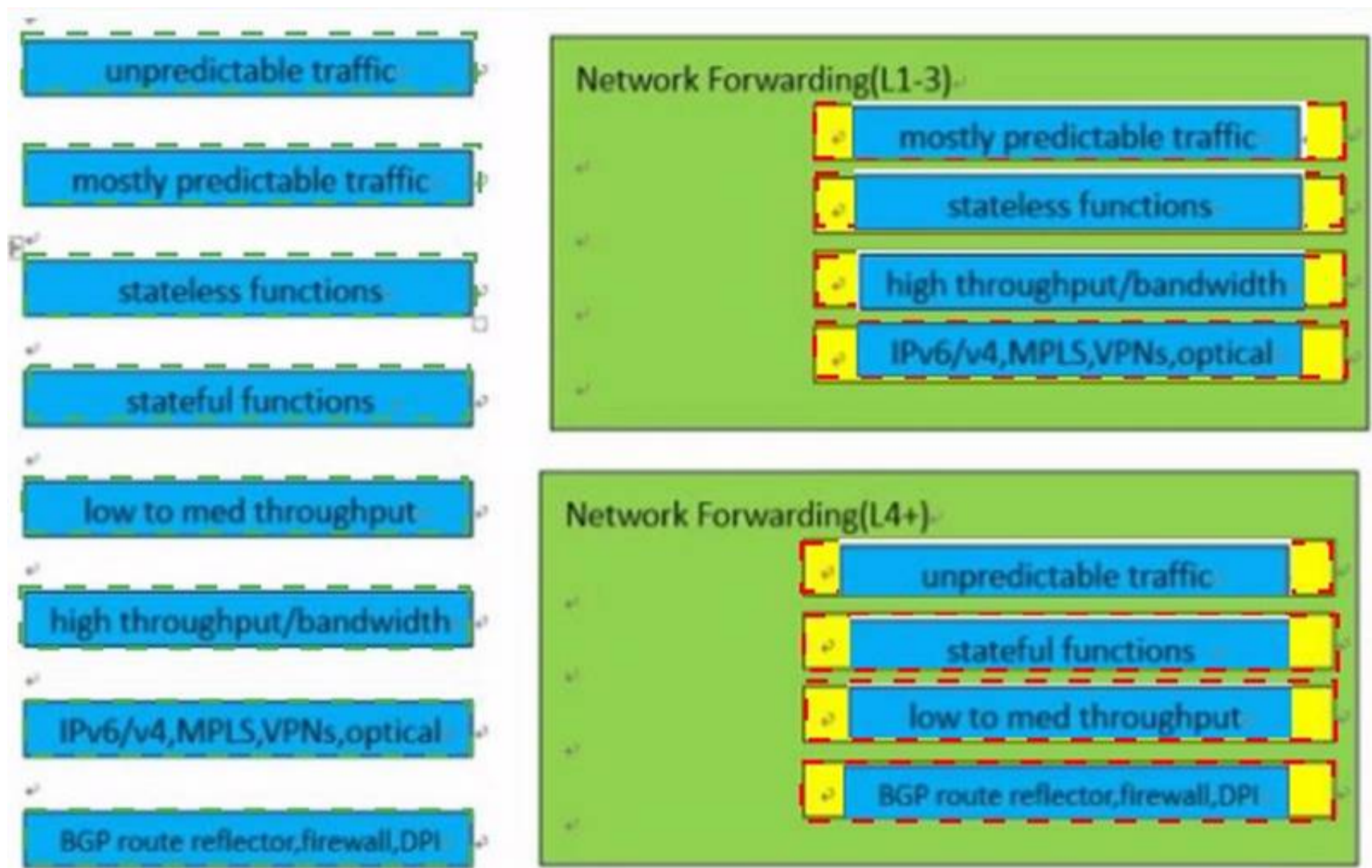
BGP route reflector,firewall,DPI

Network Forwarding(L1-3)

Network Forwarding(L4+)

Answer:

Explanation:



**NEW QUESTION 441**

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

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

Answer: DF

**NEW QUESTION 445**

DRAG DROP

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

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

Answer:

Explanation:

Drag the 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

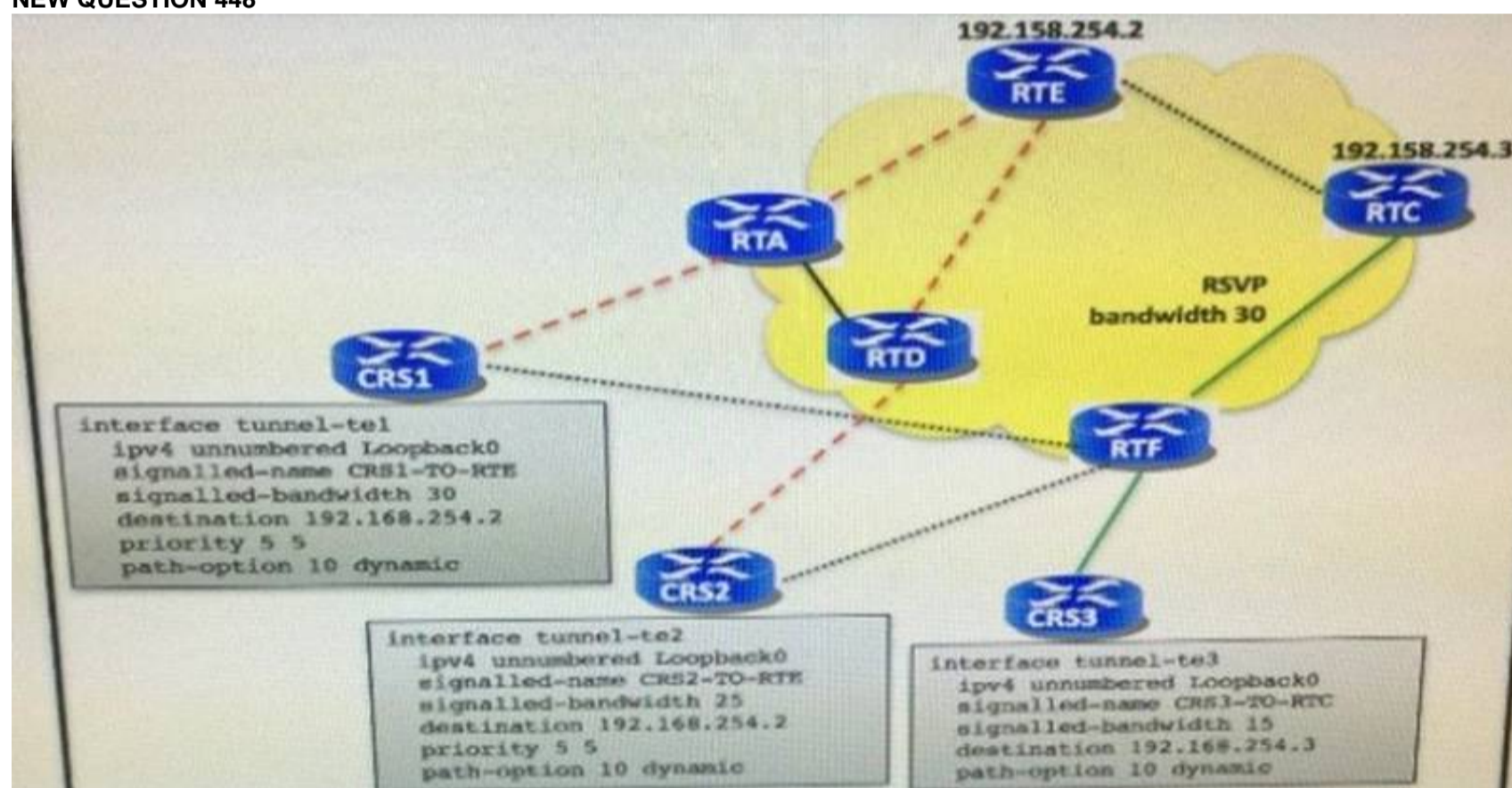
#### NEW QUESTION 446

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 448



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 452

Which are the three characteristics of Cisco IOS Embedded Packet Capture? (Choose three)

- A. It has the facility to the export the packet capture in pcap format
- B. It uses EXEC-level commands to start and stop the capture
- C. The Cisco IOS output is displayed in a human-readable format
- D. It has the ability to preserve Ethernet encapsulation information when exported

- E. It has the ability to capture packets in the Cisco Express Forwarding path
- F. The capture can be performed only on physical interfaces and subinterfaces

**Answer:** ABE

**NEW QUESTION 456**

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 459**

Which three PIM modes require RP? (Choose three)

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

**Answer:** BEF

**NEW QUESTION 464**

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 465**

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

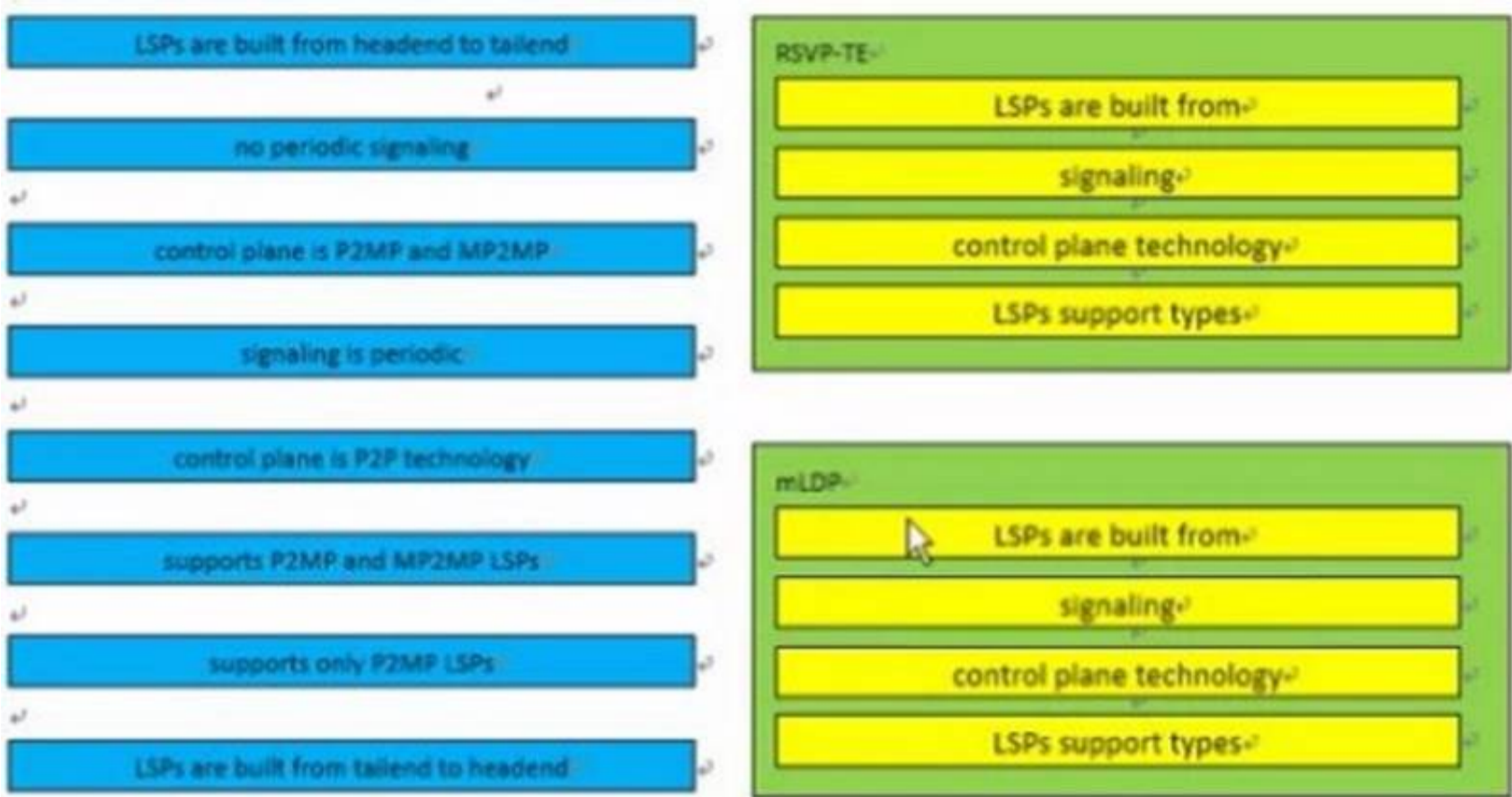
- A. BGP
- B. PIM
- C. ISIS
- D. OSPF
- E. RSVP

**Answer:** E

**NEW QUESTION 466**

DRAG DROP

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



Answer:

Explanation:



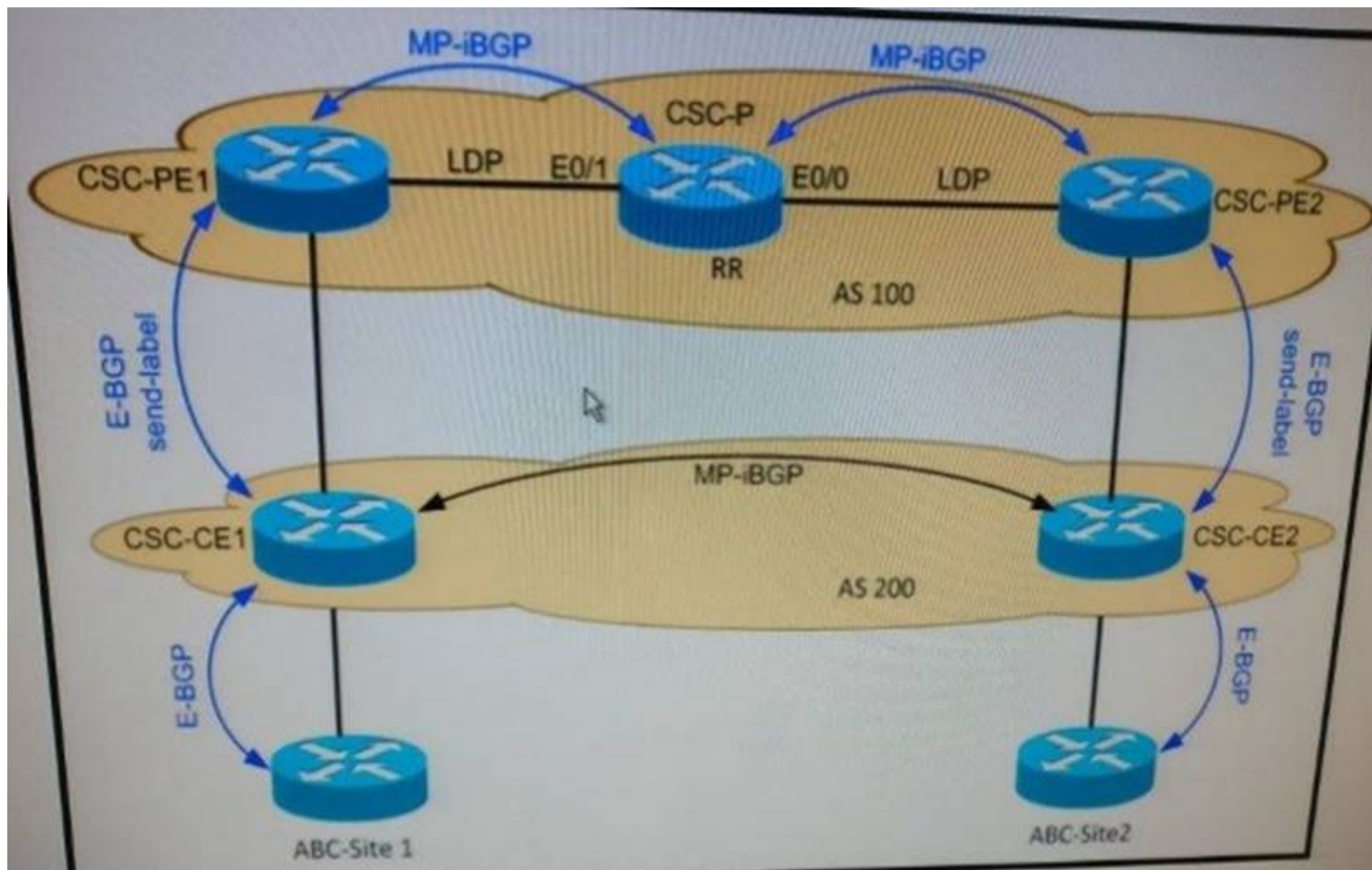
**NEW QUESTION 471**

One benefit of MPLS Layer 3 VPN is that migration for the end customer is simplified.  
Which statement is true?

- A. There is no requirement to support MPLS on the PE router and modifications are required for a customer intranet.
- B. There is no requirement to support MPLS on the PE router and no modifications are required for a customer intranet.
- C. There is no requirement to support MPLS on the CE router and no modifications are required for a customer intranet.
- D. There is requirement to support MPLS on the CE router and no modifications are required for a customer intranet.

Answer: C

**NEW QUESTION 475**



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 478

DRAG DROP

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

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

**Answer:**

**Explanation:**

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

#### NEW QUESTION 482

DRAG DROP

Drag and drop the MPLS Inter-AS VPN options on the left onto the correct description on the right

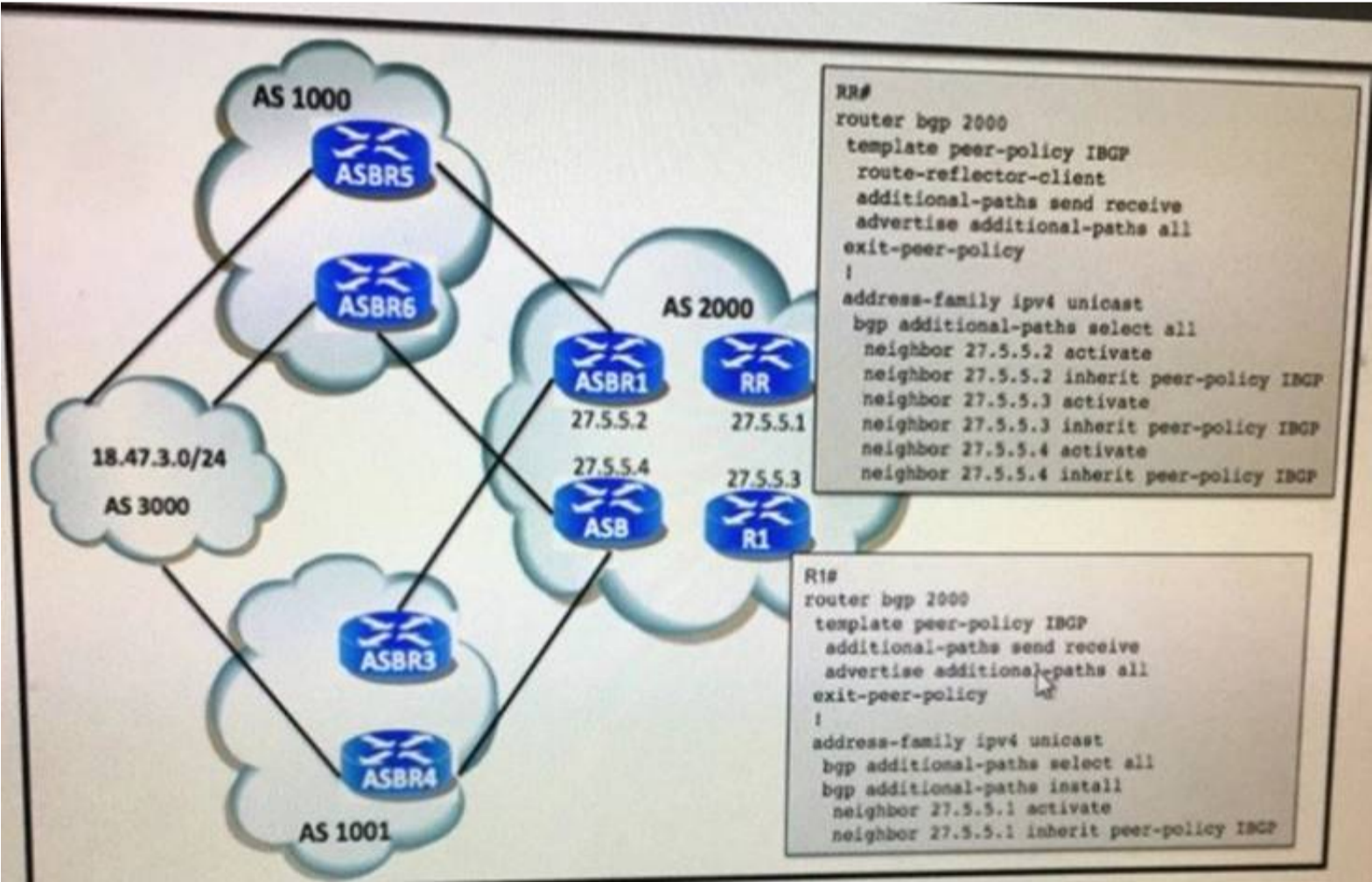
Option A	MP-BGP is used to distributed labeled VPN prefixes between the ASBRs.
Option B	RRs peering between ASs are used to distribute VPN prefixes.
Option C	Single MP-BGP session between ASBRs in the global routing table carry control plane traffic; data plane traffic on VRF table.
Option AB	ASBR peers are connected by multiple subinterfaces with at least one interface linked to a VRF.

Answer:

Explanation:

Option A	Option B
Option B	Option C
Option C	Option AB
Option AB	Option A

NEW QUESTION 485



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 489  
DRAG DROP

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

neighbor ip-address send-community extended	Step 1
address-family l2vpn vpls	Step 2
neighbor ip-address activate	Step 3
l2 vfi vfi-name autodiscovery	Step 4
router bgp autonomous-system-number	Step 5
vpn id number	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 router.

neighbor ip-address send-community extended	l2 vfi vfi-name autodiscovery
address-family l2vpn vpls	vpn id number
neighbor ip-address activate	router bgp autonomous-system-number
l2 vfi vfi-name autodiscovery	address-family l2vpn vpls
router bgp autonomous-system-number	neighbor ip-address activate
vpn id number	neighbor ip-address send-community extended

NEW QUESTION 492

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 496

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 500

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 505

A network engineer is looking for a specific VRF routing table in the PE router of an Service Provider. Which two information points will be listed in the routing table? (Choose two.)

- A. routes received from the directly connected CE
- B. routes received from the other MP-BGP PE peer
- C. routes received from the other IGP PE peer
- D. routes received from the same AS

E. routes of the global routing table

**Answer:** AB

#### NEW QUESTION 508

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 512

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 513

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 517

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 521

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 525

An architecture that utilizes PPPoE deals with IP address allocation by what type of negotiation?

- A. NIS
- B. IPCP
- C. RADIUS
- D. LDAP

**Answer:** B

#### NEW QUESTION 530

Refer to the exhibit.

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

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

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

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

Which action can fix the problem with the port channel?

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

**Answer:** D

#### NEW QUESTION 531

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

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

**Answer:** A

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

See also: Synchronization in telecommunications

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

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

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

#### NEW QUESTION 536

Which statement about the Link Control Protocol is true?

- A. LCP is used for basic PPP link setup and operation.
- B. LCP is used for PPP CHAP authentication.
- C. LCP is used for PPP over ATM setup.
- D. LCP is used for PPP over Ethernet setup.
- E. LCP is used for PPP over Frame Relay setup.

**Answer:** A

#### NEW QUESTION 540

Which two characteristics must be considered when implementing IP dampening on Cisco IOS? (Choose two.)

- A. The maximum suppress threshold time should be less than the reuse threshold.
- B. The half-life period increases the penalty by half each time the interface comes up.

- C. The reuse threshold defaults to 1000 penalties if it is not configured.
- D. IP dampening can track the individual subinterfaces on an interface.
- E. The maximum suppress threshold time should be more than the reuse threshold.

**Answer:** CE

#### NEW QUESTION 542

Select the 3 best answers describing operation and configuration of Frame-Relay Inverse ARP.

- A. Dynamic address mapping uses Frame Relay Inverse ARP to request the next-hop protocol address for a specific connection on its known DLCI.
- B. Responses to Inverse ARP requests are entered in an address-to-DLCI mapping table on the router or access server which is used to supply the next-hop protocol address or the DLCI for outgoing traffic.
- C. Inverse ARP is enabled by default for all protocols enabled on the physical interface.
- D. Inverse ARP is configured using the following command under the Interface configuration 'frame-relay mapdlci (dlci number) protocol protocol-address'.
- E. Inverse ARP in Frame-Relay is synonymous of ARP in Ethernet.

**Answer:** ABC

#### NEW QUESTION 546

Which E3 alarm indicates that there could be an issue with the transmit signal with the local equipment?

- A. rxLoS
- B. rxLoF
- C. rxRAI
- D. txRAI
- E. txLoF
- F. txLoS

**Answer:** C

#### NEW QUESTION 550

A customer is connected to a service provider by a low-speed link and wants to increase the bandwidth of this connectivity without creating additional IP addresses. Multiple physical links with the same bandwidth value are already available between the customer and the service provider. Which technology can be used to achieve these requirements?

- A. HDLC
- B. PPTP
- C. Multilink PPP
- D. Frame Relay

**Answer:** C

#### NEW QUESTION 554

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

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

**Answer:** ABE

#### **Explanation:** MEF Service

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

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

#### NEW QUESTION 555

In the context of GMPLS, LMP stands for:

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

**Answer:** D

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

GMPLS is composed of three main protocols:

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

#### NEW QUESTION 558

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

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

**Answer:** B

#### NEW QUESTION 561

When should traffic shaping be implemented on Frame Relay PVCs? (Choose two)

- A. When you want to drop excess traffic above the CIR
- B. When there is a speed mismatch between the central site and the remote site.
- C. When using Frame Relay SVCs
- D. When over-subscribing the central site link
- E. When LLQ is implemented on the Frame Relay PVC.
- F. When Multilink PPP LFI is implemented on the Frame Relay PVC.

**Answer:** BD

#### NEW QUESTION 562

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

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

**Answer:** C

#### NEW QUESTION 564

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

- A. G.706
- B. G.707
- C. G.708
- D. G.709

**Answer:** D

#### NEW QUESTION 565

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

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

**Answer:** ACD

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

#### NEW QUESTION 568

In the Carrier Supporting Carrier (CsC) feature, which two options represent protocols that run between CSC-PE and CSC-CE? (Choose two.)

- A. IGP and EBGpV4
- B. IGP and RSVP
- C. IGP and LDP
- D. EBGpV4 with a sending community
- E. EBGpV4 with a sending label

**Answer:** CE

#### NEW QUESTION 573

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

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

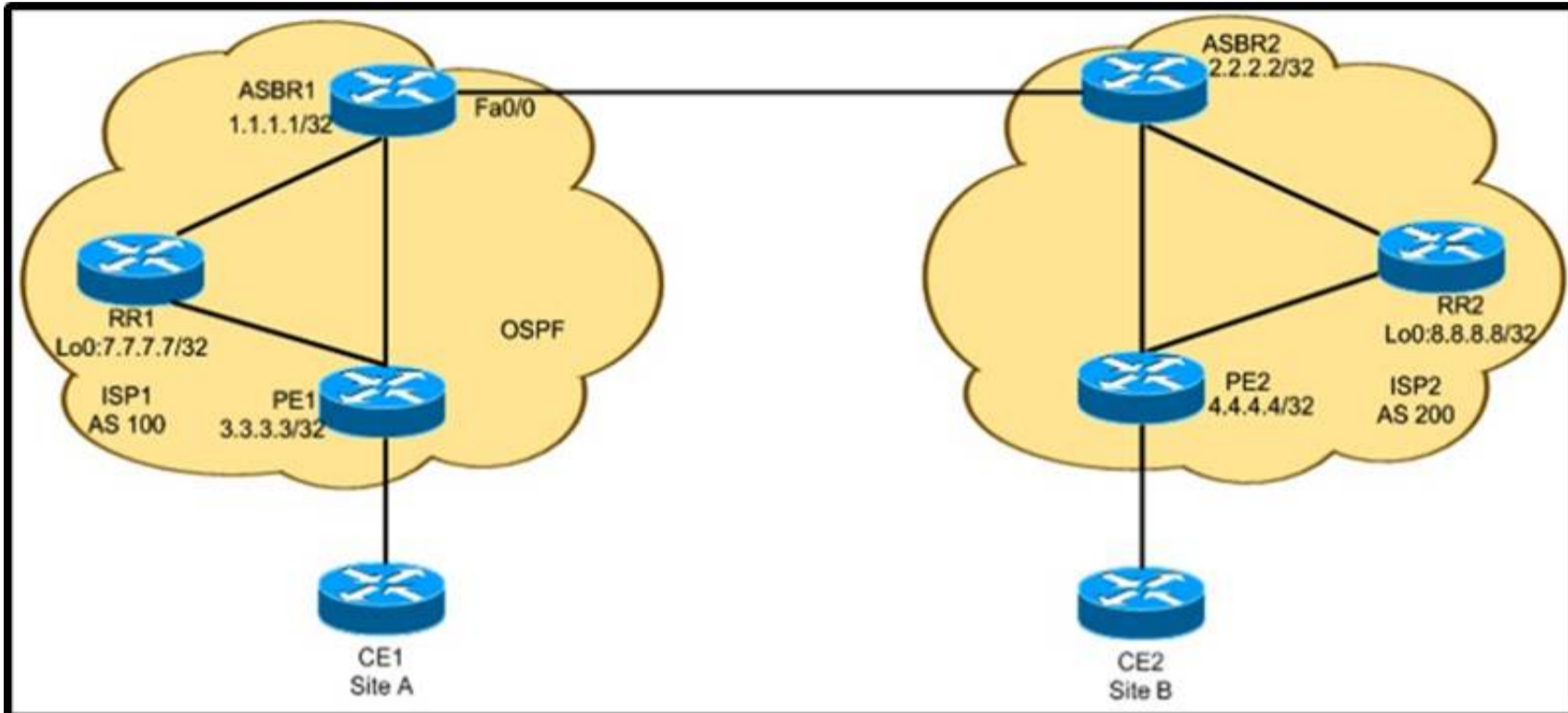
**Answer:** E

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

For STS-1, the frame is transmitted as three octets of overhead, followed by 87 octets of payload. This is repeated nine times, until 810 octets have been transmitted, taking 125 s. In the case of an STS-3c/STM-1, which operates three times faster than an STS-1, nine octets of overhead are transmitted, followed by 261 octets of payload. This is also repeated nine times until 2,430 octets have been transmitted, also taking 125 s. For both SONET and SDH, this is often represented by displaying the frame graphically: as a block of 90 columns and nine rows for STS-1, and 270 columns and nine rows for STM1/STS-3c. This representation aligns all the overhead columns, so the overhead appears as a contiguous block, as does the payload.

#### NEW QUESTION 575

Refer to the exhibit.



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

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

**Answer:** DEGHJ

#### NEW QUESTION 576

Refer to the exhibit.



The link payload rate is subdivided into multiple fixed-rate channels. In addition, the data rate of a single cell or packet flow is limited by the bandwidth of an individual channel. If the link is an OC-48, into how many channels can the link be subdivided?

- A. four OC-12 channels
- B. two OC-24 channels
- C. one OC-48 channel
- D. three OC-16 channels

**Answer:** A

#### NEW QUESTION 580

DRAG DROP

A network engineer is configuring L2VPN static point-to-point cross connect on the CRS router. Drag the configuration steps on the left in the correct order on the right.	
Configure point-to-point cross-connect.	Step 1
Select the interface.	Step 2
Commit changes.	Step 3
Enable L2VPN mode.	Step 4
Enable internetworking for IPv4.	Step 5
Configure a cross-connect group.	Step 6
Enable configure mode.	Step 7
Configure the <b>neighbor pw-id</b> command.	Step 8

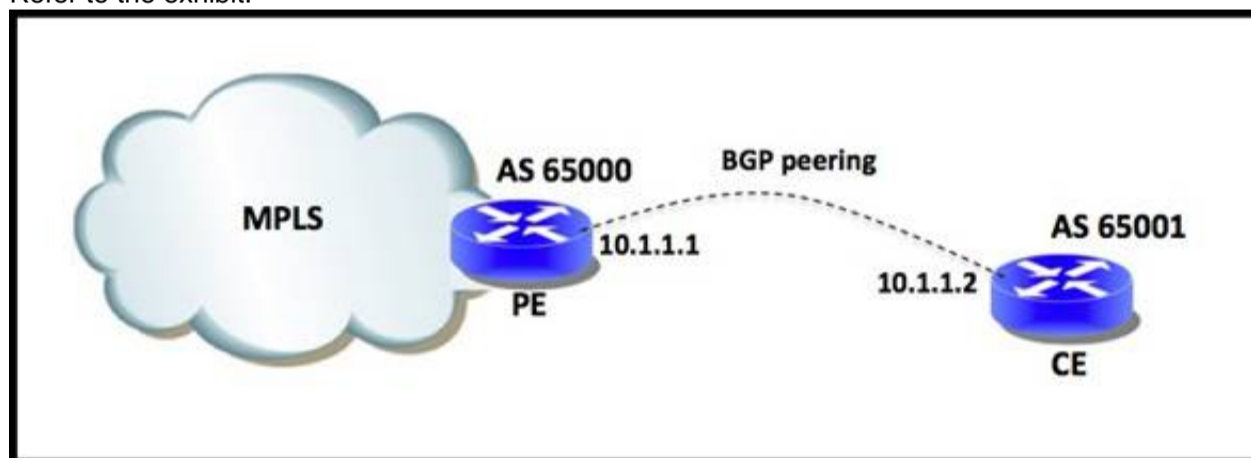
**Answer:**

**Explanation:**

A network engineer is configuring L2VPN static point-to-point cross connect on the CRS router. Drag the configuration steps on the left in the correct order on the right.	
Configure point-to-point cross-connect.	Enable configure mode.
Select the interface.	Enable L2VPN mode.
Commit changes.	Configure a cross-connect group.
Enable L2VPN mode.	Configure point-to-point cross-connect.
Enable internetworking for IPv4.	Enable internetworking for IPv4.
Configure a cross-connect group.	Select the interface.
Enable configure mode.	Configure the <b>neighbor pw-id</b> command.
Configure the <b>neighbor pw-id</b> command.	Commit changes.

#### NEW QUESTION 585

Refer to the exhibit.



An ISP engineer has been asked to identify a method to protect the PE and to control the number of BGP prefixes learned from his customers. The BGP session should be dropped if the PE router receives more than 1000 BGP prefixes. A syslog message should be generated when the number of BGP prefixes learned from CE exceeds 850.

Which Cisco IOS command should the engineer apply on PE routers?

- A. neighbor 10.1.1.2 maximum-prefix 1000 85
- B. neighbor 10.1.1.2 maximum-prefix 1000 850
- C. neighbor 10.1.1.2 maximum-prefix 1000 85 warning-only
- D. neighbor 10.1.1.2 maximum-prefix 1000 850 warning-only

**Answer: A**

#### NEW QUESTION 587

DRAG DROP

Drag and drop the appropriate default next-hop behavior on the left to the corresponding BGP routing prefix updates on the right.

iBGP to iBGP update	BGP next-hop changes by default
iBGP to eBGP update	
eBGP to iBGP update	
eBGP to eBGP update	
MP-iBGP to MP-iBGP update	BGP next-hop does not change by default
MP-iBGP to MP-eBGP update	
MP-eBGP to MP-iBGP update	
MP-eBGP to MP-eBGP update	

Answer:

Explanation:

Drag and drop the appropriate default next-hop behavior on the left to the corresponding BGP routing prefix updates on the right.

iBGP to iBGP update	BGP next-hop changes by default
iBGP to eBGP update	
eBGP to iBGP update	
eBGP to eBGP update	
MP-iBGP to MP-iBGP update	BGP next-hop does not change by default
MP-iBGP to MP-eBGP update	
MP-eBGP to MP-iBGP update	
MP-eBGP to MP-eBGP update	

NEW QUESTION 592

An ISP provides MPLS L3VPN services and is required to set up a multicast VPN. Which routers will be enabled with MDT to support a multicast VPN?

- A. All service provider routers participating in the multicast VPN.
- B. All service provider route reflectors.
- C. All service provider PE routers.
- D. All service provider P routers.
- E. All service providers P, PE and route reflector routers.

Answer: A

NEW QUESTION 593

Which three are advantages of SONET? (Choose three)

- A. Allows the transportation of all forms of traffic
- B. Multiplexing is easy
- C. Clocks do not need to be synchronized
- D. Reduces network complexity and cost
- E. Padding is not necessary and not permitted

Answer: ABD

Explanation: SONET Advantages

The big advantage of SONET is that it was designed to provide the following functions needed in networking at that time:

Single-step multiplexing

Access to low-level signals directly

Carry existing DS1, DS3, ATM, and packet traffic Synchronous timing to eliminate bit stuffing

Overhead room for acceptable network management information Allow transmission of data at higher speeds (50 Mbps+)

#### NEW QUESTION 597

A network engineer is having trouble overcoming a BGP rule. "an EBGP neighbor address information is carried in the IBGP advertisement. This information does not change to the local ASBR address". Which BGP attribute can be modified to solve this network reachability issue in this type of scenario?

- A. AS path
- B. origin
- C. weight
- D. next-hop

**Answer: D**

#### NEW QUESTION 600

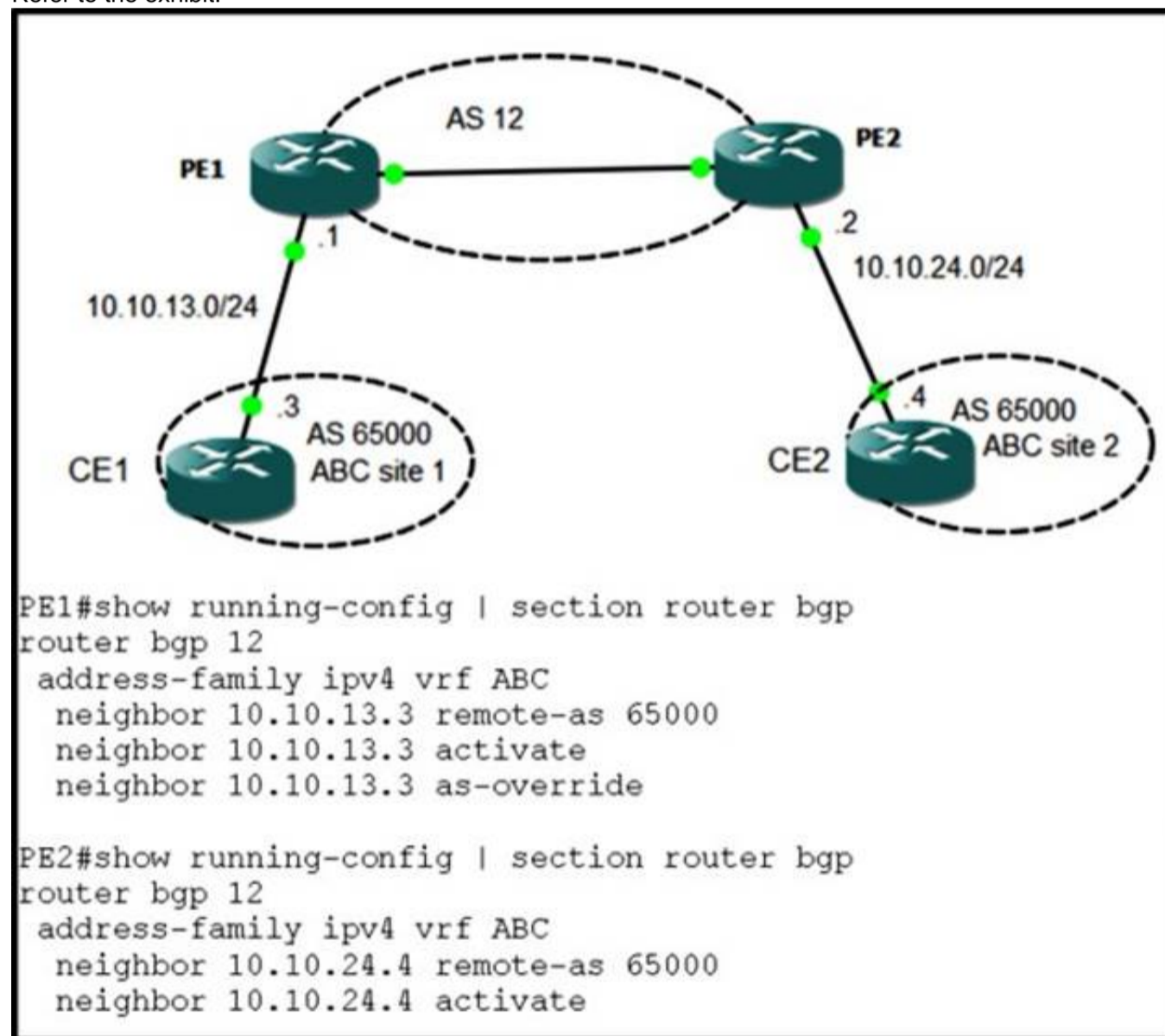
A network engineer wants to leak only IPv6 loopback addresses from level 2 to level 1. All of the other level 2 prefixes should not be advertised into level 1. Which technique will achieve this goal, based on IOS SRE release?

- A. route-policy
- B. access-list
- C. distribute-list
- D. policy-map

**Answer: C**

#### NEW QUESTION 603

Refer to the exhibit.



An MPLS VPN service has been provisioned for an ABC customer. Based on the output from the VRF BGP configuration of PE1 and PE2, which statement describes the route exchange between ABC site 1 and site 2?

- A. Only CE1 will be able to install CE2 BGP updates in its BGP table.
- B. Only CE2 will be able to install CE1 BGP updates in its BGP table.
- C. CE1 can install the CE2 subnets in its BGP table and CE2 can install the CE1 subnets its BGP table.
- D. CE1 cannot install the CE2 subnets in its BGP table and CE2 cannot install the CE1 subnets its BGP table.
- E. "as-override" feature cannot be used in this scenario.

**Answer: A**

#### NEW QUESTION 605

Which two actions of Cisco IOS Software prevent a DDOS attack? (Choose two.)

- A. Filter all source addresses from which traffic is not expected in the network, including RFC 1918 addresses.
- B. Filter all traffic for TCP ports in the range 1014-49151.
- C. Enable BFD to have links taken down when there is an attack.
- D. Enable the ip verify reverse-path command on the interface.
- E. Allow only static routes; dynamic routing protocols should not be allowed.

**Answer:** AD

#### NEW QUESTION 609

Which statement about ATM AAL5 over MPLS is true?

- A. It supports ATM signaling.
- B. It supports traffic shaping of packets in MPLS to the ATM path.
- C. It supports ATM switched virtual circuits
- D. It supports fragmentation and reassembly.
- E. It supports AAL5 SDU switching.

**Answer:** E

**Explanation:** ReferenceE.

[http://www.cisco.com/en/US/docs/ios/12\\_0s/feature/guide/fsaal22.html#wp1015337](http://www.cisco.com/en/US/docs/ios/12_0s/feature/guide/fsaal22.html#wp1015337) Restrictions

The following restriction apply to AAL5 over MPLS:

- The AAL5 over MPLS feature supports only AAL5 SDU switching.
- The following services are not supported with the AAL5 over MPLS feature:

–ATM switched virtual circuits (SVCs)

–ATM signaling

–Fragmentation and reassembly

–Traffic shaping of packets in the MPLS-to-ATM path

- The instructions for configuring AAL5 over MPLS in this feature module apply only to the Cisco 12000 series router for 12.0(21)ST. Avoid using these instructions for any other platform or release.

#### NEW QUESTION 614

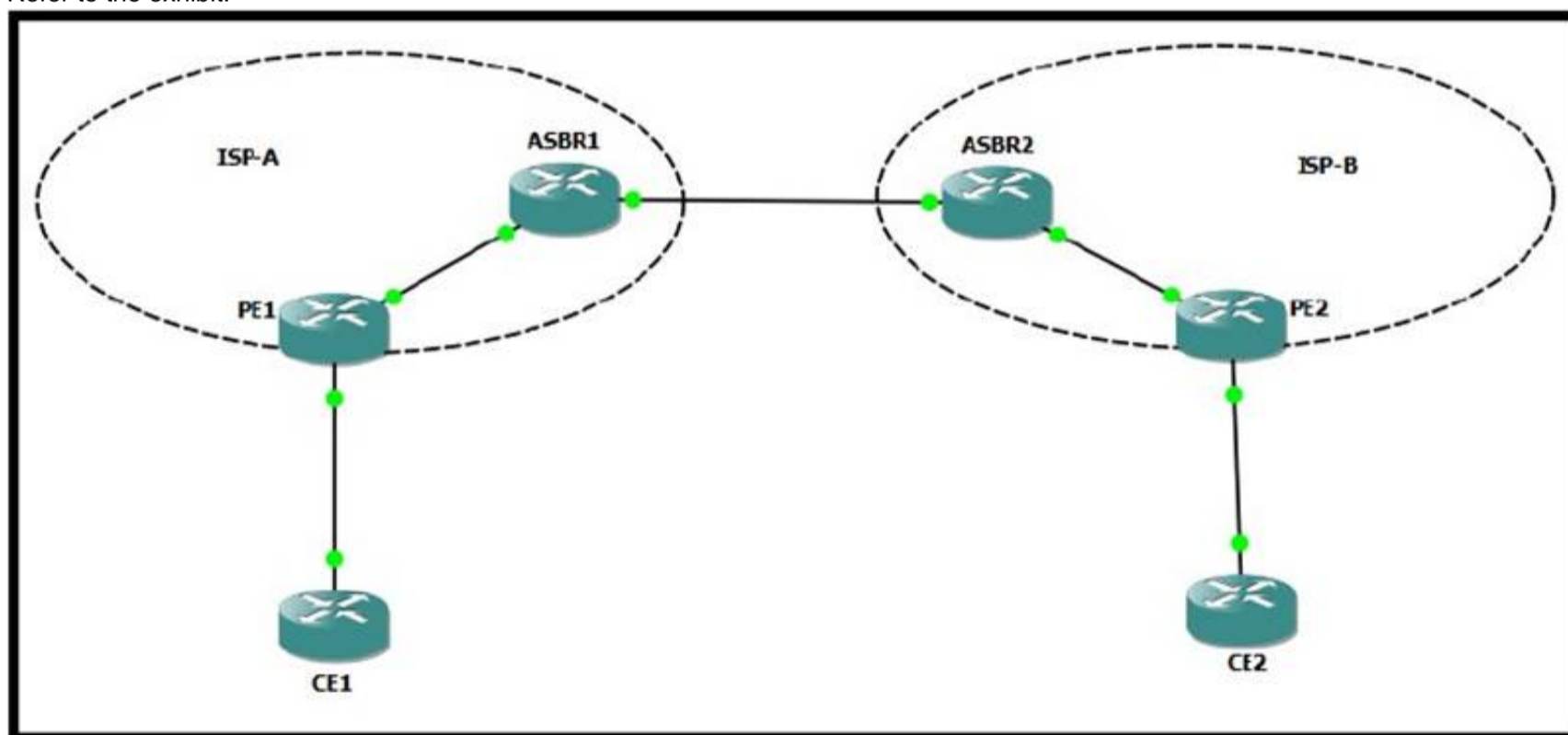
A customer requests a MPLS VPN service with dual-home connection to the service provider. Which BGP attribute can prevent routes originated from the customer from being readvertised back to them?

- A. site-of-origin
- B. local-AS
- C. AS-path
- D. next-hop

**Answer:** A

#### NEW QUESTION 618

Refer to the exhibit.



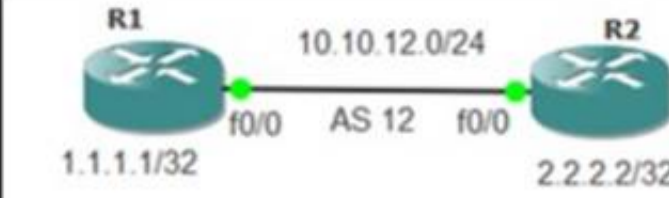
Customer ABC uses RFC 1918 addresses within its network. Customer ABC wants the Internet access for all the branch offices to transit through the head office for security and NAT purposes. The PE routers in the service provider network contain Internet routes in the global routing table. Which option describes the router or routers that should be configured to accomplish the administrative goal of the customer?

- A. all the PE routers and the P router
- B. both PE2 and PE3 routers
- C. only the PE1 router
- D. only the P router

**Answer:** C

#### NEW QUESTION 621

Refer to the exhibit.



```

R2#show ip ospf neighbor
Neighbor ID      Pri   State           Dead Time   Address        Interface
1.1.1.1          1     FULL/BDR        00:00:37    10.10.12.1     FastEthernet0/0

R2#show mpls forwarding-table
Local      Outgoing  Prefix          Bytes Label  Outgoing  Next Hop
Label      Label     or Tunnel Id    Switched     interface
R2#show ip route 1.1.1.1
Routing entry for 1.1.1.1/32
  Known via "bgp 12", distance 200, metric 0, type internal
  * 10.10.12.1, from 10.10.12.1, 00:01:31 ago

R2#show ip interface fastEthernet 0/0
FastEthernet0/0 is up, line protocol is up
  Internet address is 10.10.12.2/24
  MTU is 1400 bytes
  IP fast switching is enabled
  IP fast switching on the same interface is disabled
  IP Flow switching is disabled
  IP CEF switching is enabled
  IP CEF Fast switching turbo vector
  
```

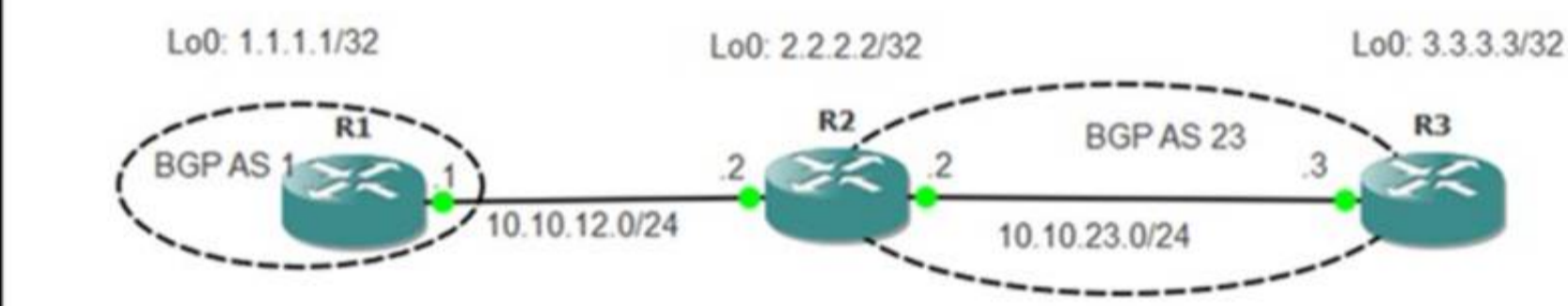
The R1 and R2 routers are running OSPF, LDP, and BGP. Why is the label for 1.1.1.1 prefix absent in the R2's MPLS forwarding table?

- A. IP MTU cannot accommodate labels.
- B. The MPLS tunnel is not enabled for the Fast Ethernet 0/0 interface.
- C. The subnet is not learned via OSPF.
- D. The bgp send-label command is not enabled between R1 and R2.

**Answer: C**

**NEW QUESTION 622**

Refer to the exhibit.



```

R3#show ip bgp 1.1.1.1
BGP routing table entry for 1.1.1.1/32, version 11
Paths: (1 available, no best path)
  Not advertised to any peer
  1
    10.10.12.1 (inaccessible) from 10.10.23.2 (2.2.2.2)
    Origin incomplete, metric 0, localpref 100, valid, internal
  
```

R3 is not able to install the R1 loopback address into its BGP routing table. What should be configured to install that route?

- A. Configure R2 as a route reflector.
- B. Enable EBGp multihop on R2.
- C. Change the origin attribute to IGP on R3.
- D. Configure the next-hop-self command on R2.
- E. Configure the next-hop-unchanged command on R2.
- F. Add a static route to reach 10.10.23.2 on R3.

**Answer: D**

**NEW QUESTION 623**

SONET's three layers are. (Choose three.)

- A. DS1
- B. Frame
- C. Path
- D. Line
- E. Section

**Answer:** CDE

**Explanation:** SONET Layers

SONET divides the overhead and transport functions into three layers:

- Section
- Line
- Path

These three layers are associated with both the physical equipment that segments the network and the bytes of information that flows through the network elements.

#### NEW QUESTION 625

Which statement about Frame Relay is not true?

- A. Static mapping is used when the remote router does not support Inverse ARP.
- B. Frame Relay Inverse ARP requires LMI capability to construct an address to the DLCI mapping table on the router.
- C. Frame Relay Inverse ARP is disabled by default in Cisco IOS Software for all protocols that are enabled on the physical interface.
- D. Inverse ARP does not work when LMI is disabled.
- E. Frame Relay provides forward and backward congestion notification messages.

**Answer:** C

#### NEW QUESTION 629

Which option is the ATM Cell Relay feature that enhances throughput and uses bandwidth more efficiently?

- A. EXP marking match QoS LLD PHB
- B. preferred-interface
- C. cell packing
- D. MPLS experimental bit
- E. RSVP bandwidth reservation

**Answer:** C

#### NEW QUESTION 633

Select the three valid LMI extension:

- A. Multicasting
- B. Global addressing
- C. Forward-explicit congestion notification (FECN)
- D. Virtual circuit status messages.
- E. Backward-explicit congestion notification (BECN)

**Answer:** ABD

**Explanation:** Optional LMI Extensions:

The LMI specification also defines several optional extensions:

- \* Global addressing convention
- \* Multicast capability
- \* A simple flow control mechanism
- \* Ability for the network to communicate a PVC's CIR to the subscriber in a Status message
- \* A new message type that allows the network to announce PVC status changes without prompting from the subscriber

Implementors may build any, all, or none of these features into their networks.

#### NEW QUESTION 634

A network engineer receives a request to tunnel Frame Relay traffic for DLCI 100 over the MPLS cloud while maintaining circuit information. Which solution meets this requirement?

- A. L2VPN
- B. L3VPN
- C. VPLS
- D. GRE

**Answer:** A

#### NEW QUESTION 637

DRAG DROP

Drag and drop the Cisco IOS XR commands used to create a policy that will limit all traffic to 20% of interface POS 0/0/0/0 on the left to the correct order for implementation on the right.	
exceed-action drop	1
exit	2
class TRAFFIC_CLASS	3
service-policy output POLICE_POLICY	4
policy-map POLICE_POLICY	5
configure	6
commit	7
interface pos 0/0/0/0	8
conform-action transmit	9
police rate percent 20	10

Answer:

Explanation:

Drag and drop the Cisco IOS XR commands used to create a policy that will limit all traffic to 20% of interface POS 0/0/0/0 on the left to the correct order for implementation on the right.	
exceed-action drop	configure
exit	policy-map POLICE_POLICY
class TRAFFIC_CLASS	class TRAFFIC_CLASS
service-policy output POLICE_POLICY	police rate percent 20
policy-map POLICE_POLICY	conform-action transmit
configure	exceed-action drop
commit	exit
interface pos 0/0/0/0	interface pos 0/0/0/0
conform-action transmit	service-policy output POLICE_POLICY
police rate percent 20	commit

NEW QUESTION 640

A network architect is tasked to design and deploy multicast in a service provider core. There is a requirement to have two PIM RP routers for PIM-SM distribute mode. What can the network architect do to satisfy this requirement?

- A. Set two RPs with same priority.
- B. Set two RPs, one with high priority and the other with low priority.
- C. Set one RP as the main RP and another as a backup RP.
- D. Set the RP-BSR method with one high-priority RP and one low-priority RP.

Answer: D

NEW QUESTION 641

Which three options are tasks of the BGP scanner process? (Choose three.)

- A. processing of BGP packets
- B. processing any route "churn"
- C. updating IP RIB
- D. providing BGP Dampening information updates
- E. performing Conditional Advertisement checks
- F. performing BGP synchronization
- G. checking next-hop reachability

Answer: DEG

NEW QUESTION 645

In which three scenarios does multihoming in IS-IS work? (Choose three.)

- A. merging Level 1 areas
- B. splitting the Level 1 area
- C. renumbering NSAP addresses
- D. modifying the system ID
- E. merging Level 2 areas
- F. splitting the Level 2 area
- G. creating an alternative path to the exit point

**Answer:** ABC

#### NEW QUESTION 650

Which four statements about Ethernet virtual circuit (EVC) infrastructure are true? (Choose four.)

- A. EVC infrastructure is a Layer 3 platform-independent routing architecture that supports IP over Ethernet services.
- B. Ethernet flow point (EFP) is configured on the main interface.
- C. Feature commands like MQC-based QoS policies can be specified.
- D. EVC infrastructure is a Layer 2 platform-independent bridging architecture that supports Ethernet services.
- E. Each Ethernet flow point (EFP) matches a predefined VLAN tag-based criteria.
- F. Ethernet flow point (EFP) is configured on the VLAN interface.

**Answer:** BCDE

**Explanation:** [http://www.cisco.com/en/US/docs/switches/lan/catalyst6500/ios/12.2SY/configuration/guide/ethernet\\_virtual\\_connection.html#wp1050309](http://www.cisco.com/en/US/docs/switches/lan/catalyst6500/ios/12.2SY/configuration/guide/ethernet_virtual_connection.html#wp1050309) <http://www.cisco.com/en/US/docs/switches/metro/me3600x>

#### NEW QUESTION 652

Pick the 4 valid ATM Cell Header fields:

- A. GFC-4 bits of generic flow control
- B. Forward-explicit congestion notification(FECN)
- C. VCI-16 bits of virtual channel identifier
- D. CLP-1 bit of congestion loss
- E. HEC-8 bit of header error control
- F. ATM Discard Eligibility(DE) bit

**Answer:** ACDE

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

#### NEW QUESTION 654

Which two statements about 10 Gigabit Ethernet (10GE) are true? (Choose two.)

- A. 10 Gigabit Ethernet does not support VLAN definition
- B. 10 Gigabit Ethernet supports full duplex links, but does not support half duplex links.
- C. 10 Gigabit Ethernet supports unshielded or shielded twisted-pair cable connections
- D. 10 Gigabit Ethernet supports Carrier Sense Multiple Access with Collision Detection (CSMA/CD).
- E. 10 Gigabit Ethernet supports optical fiber connections in single mode onl
- F. Multi mode is not supported.

**Answer:** BC

#### NEW QUESTION 657

Which MPLS technology will achieve LAN extensions over the service provider backbone?

- A. AToM
- B. VPLS
- C. L2VPN
- D. L2TPv3

**Answer:** B

#### NEW QUESTION 658

The layer 2 protocol used by POS technology offers a standardized way for mapping IP packets into SONET/ SDH payloads. Select the correct sequence of POS operation:

- 1) Data is scrambled and synchronous mapping takes place by octet into the SONET/SDH frame.
- 2) Encapsulated via Point-to-Point Protocol (PPP) takes place framing information is added with High-level Data Link Control (HDLC).
- 3) Gaps between frames are filled with flags, set to value 7E.
- 4) Octet stuffing occurs if any flags or resultant escape characters (of value 7D) are found in the data.
- 5) Data is segmented into an IP datagram with its 20-byte IP header.

- A. 1, 3, 4, 5, 2
- B. 5, 2, 3, 1, 4
- C. 2, 3, 5, 4, 1
- D. 5, 2, 3, 4, 1

E. 1, 2, 3, 4, 5

**Answer:** D

**Explanation:** The proper order of operation of PoS is: When transmitting:

IP -> PPP -> FCS generation -> Byte stuffing -> Scrambling -> SONET/SDH framing  
 When receiving:  
 SONET/SDH framing -> Descrambling -> Byte destuffing -> FCS detection -> PPP -> IP Remote

#### NEW QUESTION 662

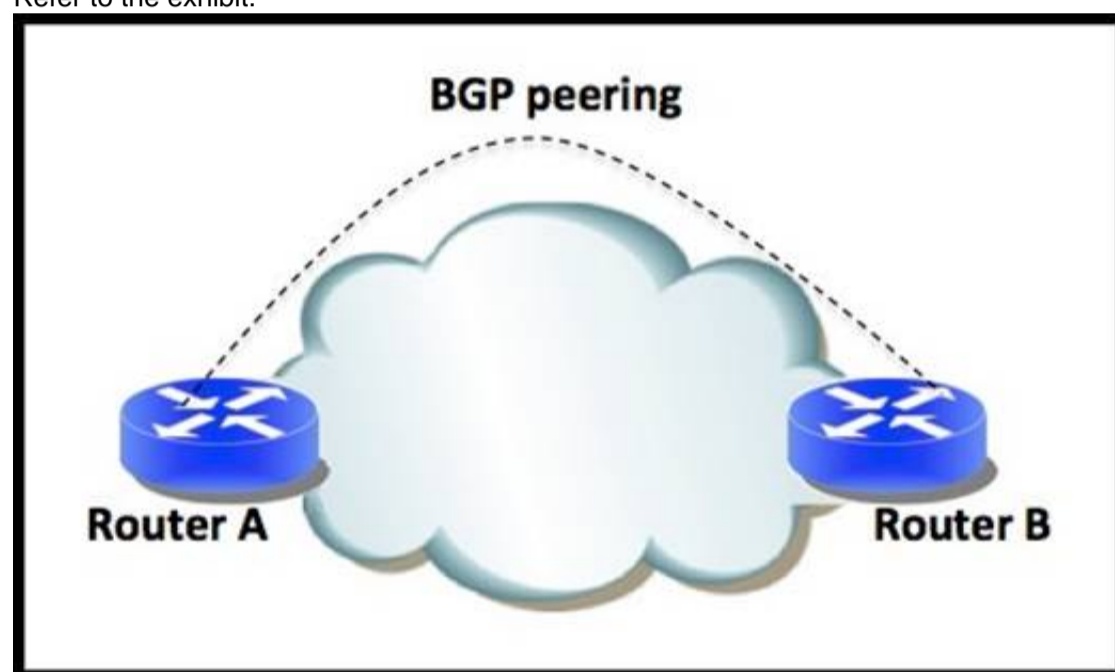
Which three counters from a show interface output indicate that data packets were dropped on that interface? (Choose three.)

- A. pause input
- B. collisions
- C. lost carrier
- D. frame
- E. runs
- F. input error

**Answer:** BDE

#### NEW QUESTION 663

Refer to the exhibit.



Router A is configured with a BGP keepalive timer of 20 seconds and a BGP holddown timer interval of 60 seconds. The BGP peer router B is configured with 5 seconds of keepalive interval and 15 seconds of holddown timer interval.

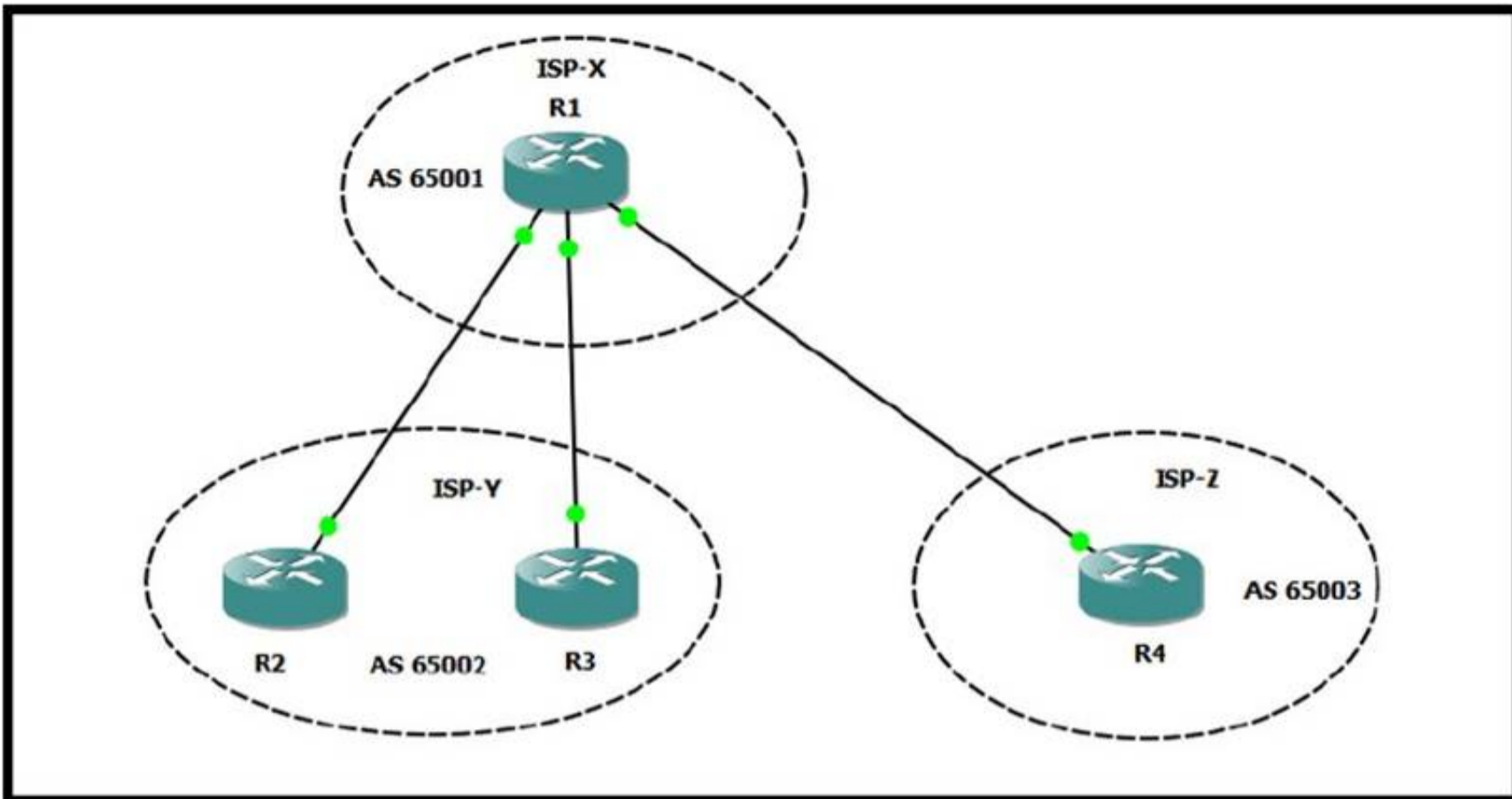
Which option is the value of the keepalive interval and holddown timers, respectively, after the successful BGP TCP negotiation between router A and router B?

- A. BGP TCP negotiation will not be successful.
- B. 20 and 60 seconds
- C. 5 and 15 seconds
- D. Router A will use 20 and 60 seconds and router B will use 5 and 15 seconds.
- E. Router B will use 20 and 60 seconds and router A will use 5 and 15 seconds.

**Answer:** C

#### NEW QUESTION 668

Refer to the exhibit.



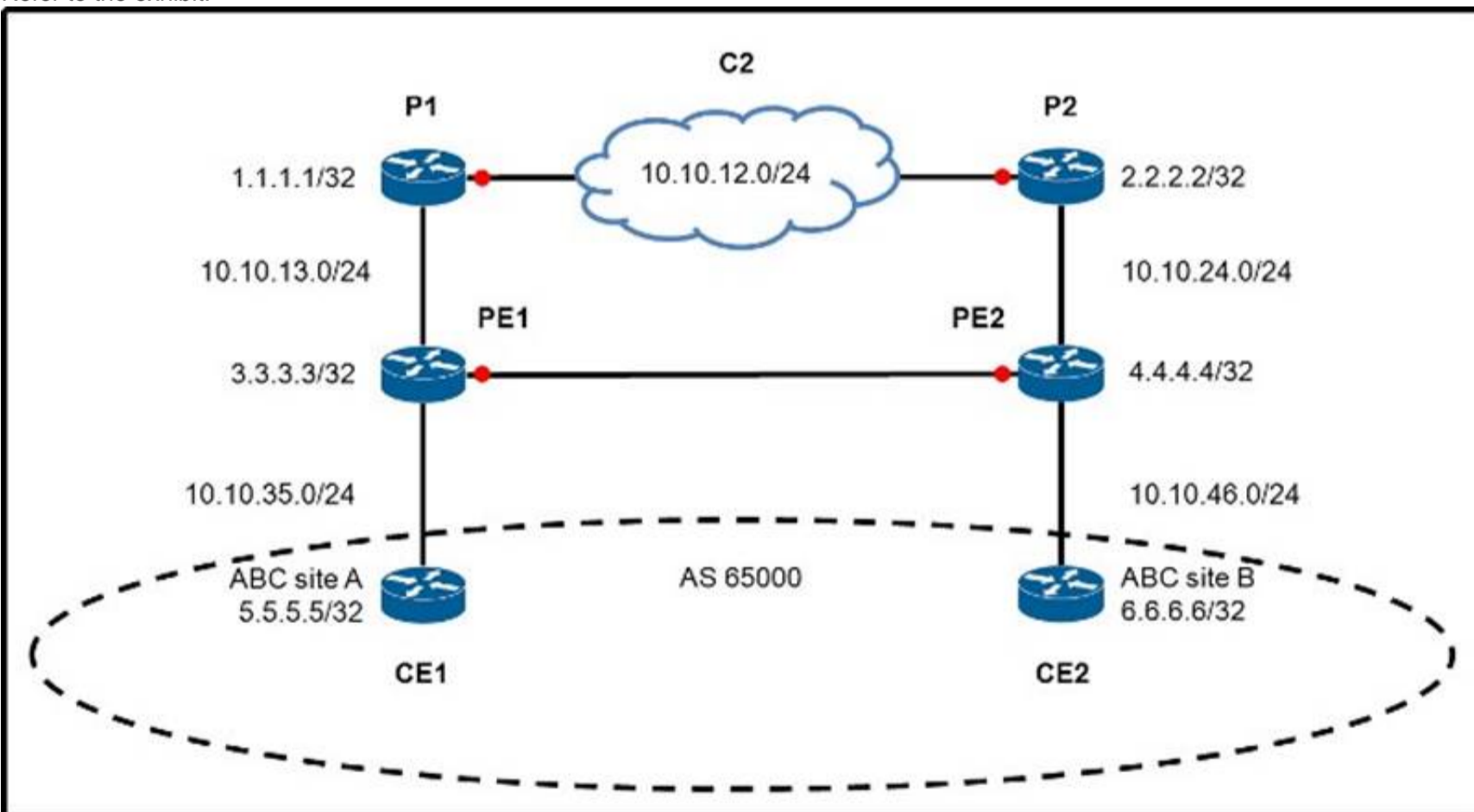
ISP-X customers must be able to reach both ISP-Y and ISP-Z, but ISP-X must not allow transit traffic between ISP-Y and ISP-Z at any time. Which two options satisfy this requirement? (Choose two.)

- A. Use the MED to prefer the proper routes.
- B. Use communities to identify and filter routes.
- C. Use the atomic aggregate attribute.
- D. Use a route map to filter routes on the AS number.
- E. Use local preference to prefer the routes.

**Answer:** BD

#### NEW QUESTION 673

Refer to the exhibit.



An engineer is looking 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. CE1 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 676

Which two VPN Inter-AS options require the no bgp default route-target filter command? (Choose two.)

- A. MPLS VPN Inter-AS with ASBRs exchanging VPN-IPv4 addresses
- B. MPLS VPN Inter-AS with ASBRs exchanging IPv4 routes and MPLS labels
- C. MPLS VPN Inter-AS Option AB
- D. MPLS VPN Carrier Supporting Carrier using LDP and IGP
- E. MPLS VPN Carrier Supporting Carrier with BGP
- F. MPLS VPN eBGP multipath support for CSC

**Answer:** AC

#### NEW QUESTION 677

What is the purpose of Dual Ring Interconnect with D C for SDH rings?

- A. Protects signals when a ring switch fails
- B. Protects signals when multiple span switches fail
- C. Protects pre-emptible traffic from being dropped when a ring switch occurs
- D. Protects signals against any combination of link failure in each ring

**Answer:** D

#### NEW QUESTION 680

What are the three building blocks of the Cisco VPLS architecture? (Choose three.)

- A. L2VPN
- B. Ethernet Virtual Switch Interface
- C. VLAN Trunk Protocol
- D. State Synchronization Protocol
- E. Label Distribution Protocol
- F. Resource Reservation Protocol

**Answer:** ABE

#### NEW QUESTION 681

A customer wants the minimum delay for the transit traffic that traverses the service provider core. An engineer realizes that the customer sites are remotely dispersed and wants to give them a specific path through the MPLS core with guaranteed bandwidth and without relying on the shortest path of OSPF as the customer IGP. Which technology will achieve the required result?

- A. L2VPN
- B. IPsec tunnel
- C. MPLS TE tunnel
- D. L3VPN
- E. mGRE with extensions

**Answer:** C

#### NEW QUESTION 682

What does FRTP stand for?

- A. Frame Relay Top Pseudowire
- B. Frame Relay Traffic Pseudowire
- C. Frame Relay Traffic Protocol
- D. Frame Relay Traffic Policing

**Answer:** D

**Explanation:** Frame Relay Traffic Policing provides a mechanism to rate-limit packets on switched PVCs using a "leakybucket" implementation. When enabled, Traffic Policing prevents traffic congestion by discarding or setting the Discard Eligible (DE) bit on packets that exceed specified traffic parameters. Traffic Policing parameters can be specified per DCE interface, or per switched PVC, using the 'map class' mechanisms.

#### NEW QUESTION 687

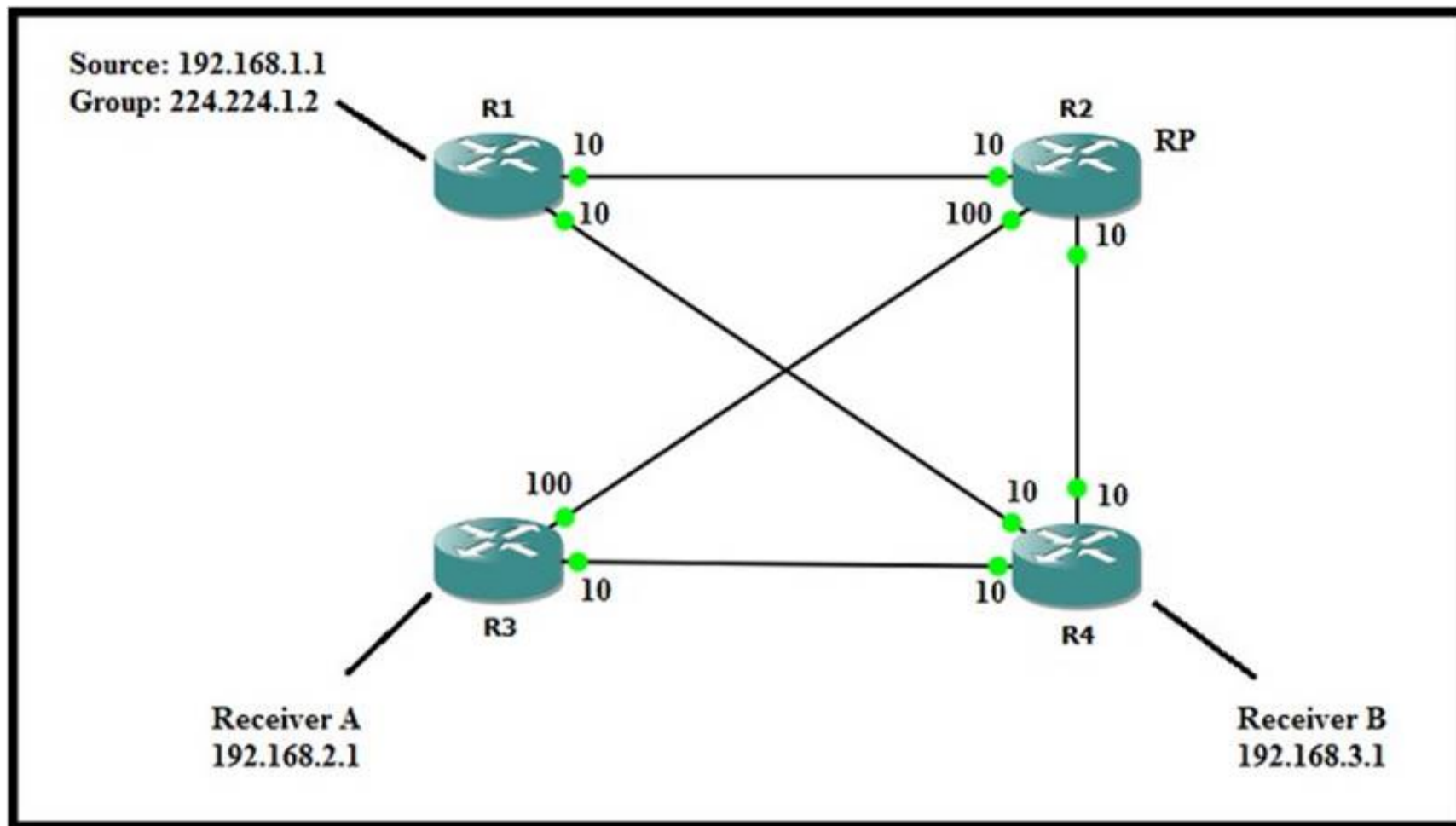
An MPLS VPN service is deployed over an MPLS provider. A customer wants all sites to run BGP with his provider, given that all CEs have the same AS value. Which feature on the service provider PEs can allow communication among different sites?

- A. BGP allow-AS
- B. BGP weight
- C. BGP multihop
- D. BGP AS-override

**Answer:** D

#### NEW QUESTION 689

Refer to the exhibit.



There are receivers that are registered at the RP. If the source begins sending multicast traffic toward R1, how will R1 handle that traffic?

- A. R1 forwards the multicast packets on the (S, G) tree toward the RP.
- B. R1 encapsulates the multicast packets into a PIM register multicast packet.
- C. R1 encapsulates the multicast packets into a PIM join unicast packet.
- D. R1 tunnels the multicast packets in PIM register messages toward the RP.

**Answer: D**

#### NEW QUESTION 694

An ISP provides DSL services to home customers. Each customer is given a username and a password. The ISP RADIUS server is configured to send a challenge to its clients along with the server hostname. Which two protocols should be used to deliver this service? (Choose two.)

- A. PPP
- B. PPPoE
- C. PAP
- D. CHAP
- E. HDLC

**Answer: BD**

#### NEW QUESTION 697

What are three common reasons for ATM CRC errors? (Choose three.)

- A. Incorrect VPI and VCI configuration
- B. Noise, gain hits, or other transmission problems on the data link equipment
- C. ATM cells are dropped due to incorrect ATM routing in the service provider.
- D. A faulty or failing ATM interface.
- E. Cells are dropped due to traffic policing in the ATM cloud on one or more virtual circuits attached to the ATM interface.

**Answer: BDE**

#### Explanation: Reasons for ATM CRC Errors

The following are some potential reasons for ATM CRC errors:

Dropped cells due to traffic policing in the ATM cloud on one or more VCs attached to the ATM interface.

Noise, gain hits, or other transmission problems on the data-link equipment. A faulty or failing ATM interface.

The show interfaces command output displays the CRC error count. These errors suggest that when the SAR reassembles the packet and checks the CRC, the calculated CRC value does not match the value in the assembled packet's CRC field.

#### NEW QUESTION 702

A network engineer is redistributing BGP prefixes into RIP. These prefixes are unreachable in the RIP network. Which the two actions could resolve the issue based on this scenario? (Choose two.)

- A. Enable BGP synchronization.
- B. Enable BGP AS-override.
- C. Rewrite RIP hop count for the redistributed prefixes.
- D. Enable internal BGP redistribution.
- E. Rewrite BGP next hop.
- F. Apply BGP next-hop-self.

**Answer: CD**

#### NEW QUESTION 707

Which Inter-AS option allows a service provider to provision AToM along with L3VPN provisioning?

- A. MPLS VPN Inter-AS with ASBRs exchanging VPN-IPv4 addresses
- B. MPLS VPN Inter-AS with ASBRs exchanging IPv4 routes and MPLS labels
- C. MPLS VPN Inter-AS Option AB
- D. back-to-back VRFs

**Answer:** B

#### NEW QUESTION 709

A service provider engineer has been requested to preserve QoS values when customer packets cross the MPLS backbone. Which Cisco IOS command should the engineer apply and what should the label value be when the LSR at the penultimate hop forwards the MPLS label packets toward the egress PE?

- A. mpls ldp explicit-null with label value of zero
- B. mpls ldp implicit-null with label value of zero
- C. mpls ldp explicit-null with label value of three
- D. mpls ldp implicit-null with label value of three

**Answer:** A

#### NEW QUESTION 711

Which four of these statements are restrictions for Frame Relay PVC bundles with QoS support for IP and MPLS? (Choose four)

- A. A PVC bundle will not come up unless all the precedence, DSCP, and EXP levels are configured in the bundle.
- B. A PVC bundle can perform precedence and DSCP matching at the same time
- C. A PVC bundle may contain no more than sixteen PVCs
- D. A PVC can be in only one PVC bundle
- E. A PVC bundle cannot perform precedence and DSCP matching at the same time.
- F. A PVC bundle may contain no more than eight PVCs.

**Answer:** ADEF

**Explanation:** Reference:

[http://www.cisco.com/en/US/docs/ios/12\\_2t/12\\_2t13/feature/guide/ft\\_frband.html#wp102717](http://www.cisco.com/en/US/docs/ios/12_2t/12_2t13/feature/guide/ft_frband.html#wp102717) 5

Restrictions for Frame Relay PVC Bundles with QoS Support for IP and MPLS

- A PVC can be a part of one and only one PVC bundle.
- A PVC bundle may contain no more than eight PVCs.
- A PVC that is a bundle member cannot be used in any other capacity, For example a PVC bundle member cannot be configured in a map statement.
- A PVC bundle cannot perform precedence and DSCP matching at the same time. If the wrong matching scheme is configured, unpredictable behavior will result.
- A PVC bundle will not come up unless all the precedence, DSCP, or EXP levels are configured in the bundle.
- Voice over Frame Relay (VoFR) is not supported on PVC-bundle members.
- Fast switching over Frame Relay PVC bundles is not supported.

#### NEW QUESTION 714

Which of the following is a correct arrangement of APS Action Requests in order of priority, with highest priority first?

- A. Lookout of Protection, Forced Switch, SD, Manual Switch
- B. SD, Lockout of Protection, Forced Switch, Manual Switch
- C. Lockout of Protection, Manual Switch, SD, Forced Switch
- D. Manual Switch, Forced Switch, Lockout of Protection, SD
- E. Manual Switch, Lockout of Protection, Forced Switch, SD

**Answer:** A

**Explanation:** 1.1. Packet over SONET

Table 1 shows the priority requests from the highest (lockout) to the lowest (manual). Table 1 APS Priority Request

Priority Priority Request 1 Lockout of protect port 2 Forced switch

3 Signal failure—low priority

4 Signal degradation—low priority 5 Manual switch

#### NEW QUESTION 715

The SP core supports PIM-SM for multicast traffic, but one of these routers is not able to see one of its PIM neighbors. What is the most likely cause of this issue?

- A. The router is an RP with high priority.
- B. IGMP snooping is not enabled.
- C. PIM sparse mode is not enabled on a participating multicast interface.
- D. PIM protocols are not enabled in global configuration mode.
- E. Auto-RP is not enabled on this network.

**Answer:** C

#### NEW QUESTION 718

Which option propagates SRLG membership information to the network?

- A. BGP attribute
- B. IGP extension
- C. RSVP extension
- D. LDP extension
- E. PIM extension

**Answer:** B

**NEW QUESTION 722**

Refer to the exhibit.

Router# show mpls l2transport vc				
Local intf	Local circuit	Dest address	VC ID	Status
Gi4/0.1	Eth VLAN 2	11.1.1.1	2	UP
Gi8/0/1	Ethernet	11.2.1.1	8	UP
AT1/0	ATM CELL ATM2/0	11.3.1.1	110	UP
Se5/0	FR DLCI 55	11.4.1.1	55	UP

Which attached circuit interface shown uses VC Type 4?

- A. Gi8/0/1
- B. AT1/0
- C. Se5/0
- D. ATM2/0
- E. Gi4/0.1

**Answer:** E

**NEW QUESTION 727**

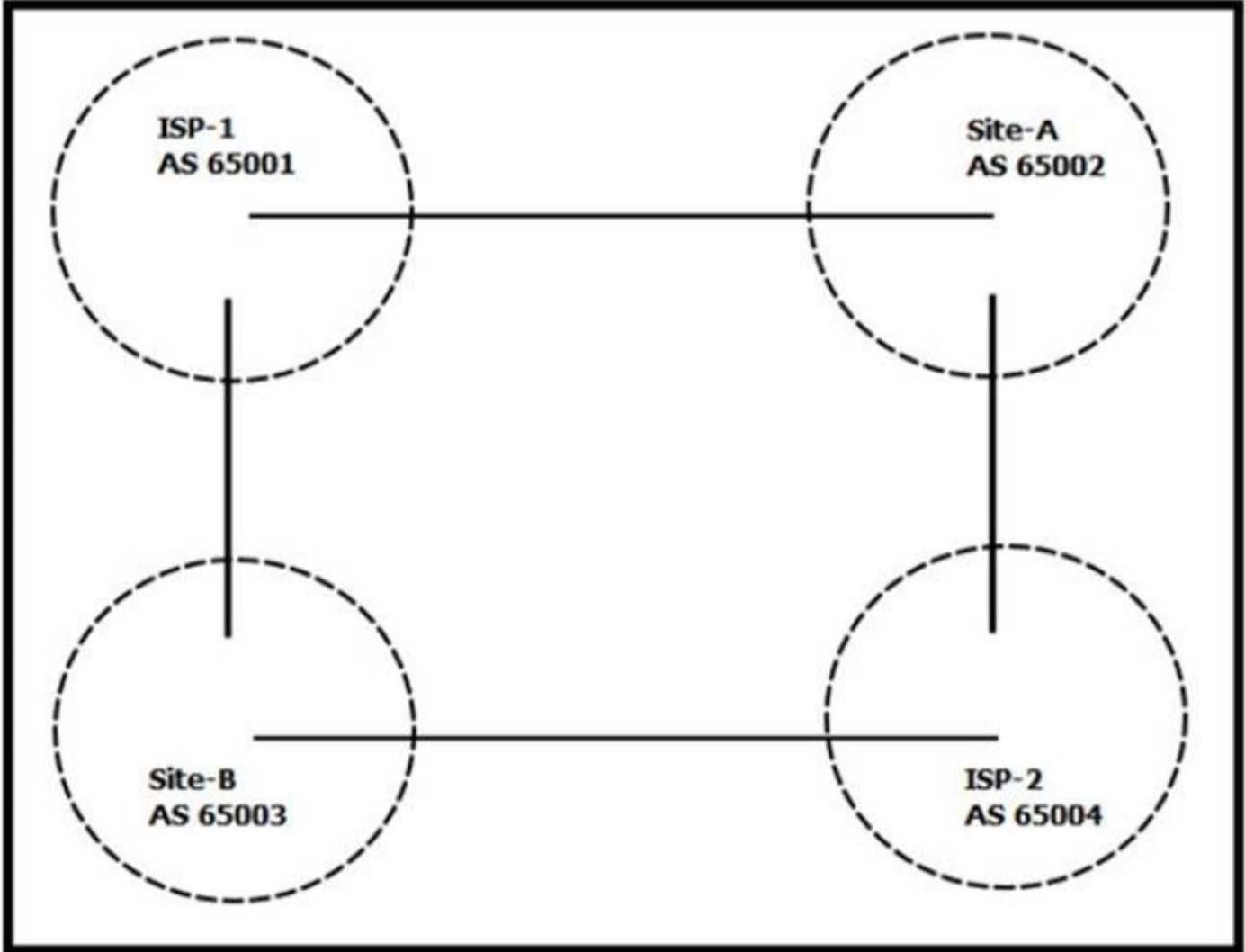
Assume two routers on the same subnet, R1 and R2, both configured for HSRP. R1 has a priority of 120. Which of the following HSRP interface configurations will always result in the R2 becoming the primary? (Choose two.)

- A. standby 1 priority 120
- B. standby 1 priority 130 preempt
- C. standby 1 priority 130
- D. standby 1 priority 120 preempt
- E. standby 1 priority 110 preempt
- F. standby 1 priority 110

**Answer:** BC

**NEW QUESTION 732**

Refer to the exhibit.



Each AS domain contains more than one BGP router. Site-B sends traffic to ISP-1 over a directly connected link, but Site-B is not used as an AS transit for the

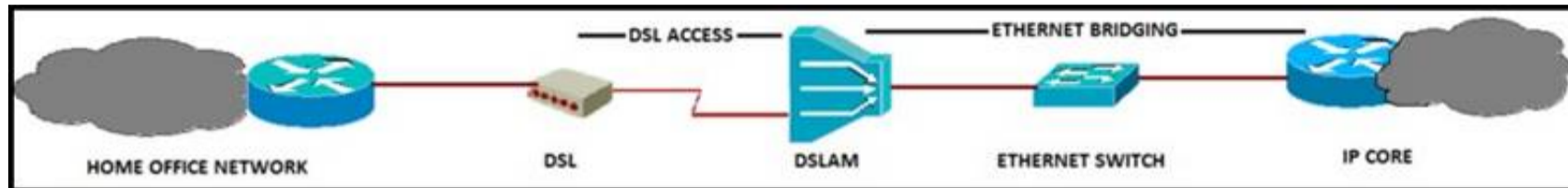
ISP-1 backbone. How should the routes be advertised by ISP-1 towards Site-B to accomplish this task?

- A. Prefixes from site-A should be advertised with the no-export community
- B. Prefixes from site-B should be advertised with the no-export community
- C. Prefixes from site-B should be advertised with the no-advertise community
- D. Prefixes from site-A should be advertised with the as-path prepend attribute
- E. Prefixes from site-A should be advertised with the no-advertise community

**Answer: B**

#### NEW QUESTION 736

Refer to the exhibit.



A home office user sends IP datagrams from the local router, which sends Ethernet datagrams to the DSL modem. The DSL modem encapsulates the Ethernet frames in which frame format before sending them over the physical DSL link to DSLAM?

- A. RFC 1483
- B. PPPoE
- C. PPPoA
- D. IP over ATM

**Answer: A**

#### NEW QUESTION 737

What are the benefits of using TCAM technology in high-end routing products? (Choose two.)

- A. Simplified configuration
- B. Lower maintenance cost
- C. Deterministic performance
- D. Longer uptime
- E. Lower power consumption

**Answer: CD**

#### NEW QUESTION 741

Which two statements about a backup tunnel to avoid the SRLGs of its protected interface are true? (Choose two.)

- A. Tunnel is not created unless it avoids SRLGs on the protected interface.
- B. If it is not possible to avoid SRLG of the protected interface, backup tunnel will be created anyways.
- C. If it is not possible to avoid SRLG of the protected interface, backup tunnel will not be created.
- D. Backup tunnel can be created between IGP areas as long as SRLG is configured along the path.
- E. Manually created backup tunnel do automatically avoid SRLG of protected interfaces.

**Answer: AB**

#### NEW QUESTION 742

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

- A. groups of IP addresses
- B. bridge or switch instance
- C. traffic engineering tunnel
- D. IPsec tunnel
- E. routing equivalence paths
- F. a bgp prefix

**Answer: ABC**

#### NEW QUESTION 745

DRAG DROP

Drag the T1 parameters on the left to the corresponding category on the right. Not all options are used.

B6ZS	T1 Framing
SF	
B3ZS	
B8ZS	T1 Line Coding
AMI	
CBIT	
ESF	

Answer:

Explanation:

Drag the T1 parameters on the left to the corresponding category on the right. Not all options are used.

B6ZS	T1 Framing
SF	
B3ZS	
B8ZS	T1 Line Coding
AMI	
CBIT	
ESF	

NEW QUESTION 749

What is the label for MPLS over ATM?

- A. VPI 16
- B. DLCI
- C. VPI and VCI
- D. circuit number
- E. PVC and SVC

Answer: C

NEW QUESTION 753

Which of the following descriptions about uRPF loose mode is correct? (Choose two).

- A. It is typically used on point-to-point interfaces where the same interface is used for both directions of packet flows; if the source address has a return route in the FIB table, it is then checked against the adjacency table to ensure the same interface receiving the packet is the same interface used for the return path
- B. If a packet fails the uRPF loose mode check, the packet is then transmitted and creates a log message
- C. It is typically used on multipoint interfaces or on routers where asymmetrical routing is used (packets are received on one interface but the return path is not on the same interface); loose mode verifies a source address by looking in forwarding information base(FIB).
- D. If a packet fails the uRPF loose mode check, the packet is then dropped

Answer: CD

**Explanation:** When administrators use Unicast RPF in strict mode, the packet must be received on the interface that the router would use to forward the return packet. Unicast RPF configured in strict mode may drop legitimate traffic that is received on an interface that was not the router's choice for sending return traffic. Dropping this legitimate traffic could occur when asymmetric routing paths are present in the network. When administrators use Unicast RPF in loose mode, the source address must appear in the routing table. Administrators can change this behavior using the allow-default option, which allows the use of the default route in the source verification process. Additionally, a packet that contains a source address for which the return route points to the Null 0 interface will be dropped. An access list may also be specified that permits or denies certain source addresses in Unicast RPF loose mode. Care must be taken to ensure that the appropriate Unicast RPF mode (loose or strict) is configured during the deployment of this feature because it can drop legitimate traffic. Although asymmetric traffic flows may be of concern when deploying this feature, Unicast RPF loose mode is a scalable option for networks that contain asymmetric routing paths.

NEW QUESTION 754

What is TCI?

- A. Tag Calling Interface
- B. Tag Control Identifier

- C. ToS Class Interface
- D. Tag Control Information

**Answer:** D

#### NEW QUESTION 757

What is the minimum hardware configuration of the multishelf Cisco CRS-1 system?

- A. One route processor (RP) card and one modular services card (MSC)
- B. One distributed route processor (DRP) and one S13 fabric card (SFC)
- C. One line card chassis (LCC) and one fabric card chassis (FCC)
- D. One route processor (RP) and one fabric card chassis (FCC)
- E. One line card chassis (LCC) and one S13 fabric card (SFC)

**Answer:** C

**Explanation:** 1.4. SP high end product

A minimum of one LCC and one FCC are required to configure a multishelf system.

#### NEW QUESTION 758

What are BCP 38 (Best Common Practices 38) / RFC 2827 Ingress Packet Filtering Principles? (Choose three.)

- A. Filter Smurf ICMP packets.
- B. Filter as close to the core as possible
- C. Filter as close to the edge as possible
- D. Filter as precisely as possible
- E. Filter both source and destination where possible.

**Answer:** CDE

**Explanation:** 1.13. Security in core

#### NEW QUESTION 762

In which modes does selective packet discard (SPD) operate? (Choose three.)

- A. discard
- B. random
- C. normal
- D. full
- E. select

**Answer:** BCD

#### NEW QUESTION 764

In a cable HFC plant, what is a modulator?

- A. Set top box
- B. Diplex filter
- C. Local head end
- D. Fiber node

**Answer:** A

#### NEW QUESTION 769

DSCP value "101110" looks like which IP Precedence value to non-DiffServ compliant devices?

- A. IP Precedence 6
- B. IP Precedence 4
- C. IP Precedence 3
- D. IP Precedence 5
- E. IP Precedence 2
- F. IP Precedence 7

**Answer:** D

#### NEW QUESTION 772

Assume that the PEs are separated by Multiple P routers.

How many labels should the ingress PE push for 6PE functionality?

- A. 1
- B. None
- C. 3
- D. 2
- E. It depends on the numbers of hops between the ingress and egress PE.

**Answer:** D

**Explanation:** A PE device on receiving the IPv6 prefix from CE by routing protocol will assign a label and advertise through BGP to other PE devices which in turn will be advertised to remote CE devices.  
This label information will be used to switch the packet through MPLS cloud. 6PE implementation will have minimum 2 labels imposed, top label being the one to identify the remote PE while bottom label to identify the IPv6 prefix.

#### NEW QUESTION 776

CRS-1 single shelf maximum capacities?

- A. 320 Gbit/s
- B. 640 Gbit/s
- C. 1.2 Tbit/s
- D. 92 Tbit/s

**Answer:** C

**Explanation:** 1.4. SP high end product  
1.4.05. CRS-1/3 structure

#### NEW QUESTION 778

Which Cisco IOS command displays the export VPN route target value of a VRF?

- A. show ip vrf all
- B. show ip vrf route-targets all
- C. show ip vrf summary
- D. show ip vrf interfaces
- E. show ip vrf detail
- F. show ip vrf

**Answer:** E

**Explanation:** The show ip vrf [{detail | interfaces}] vrf-name command shows detailed configurations about the VRF.  
Pesaro# show ip vrf detail Customer\_A VRF Customer\_A; default RD 100:101 Interfaces:  
Loopback101 Loopback111  
Connected addresses are not in global routing table Export VPN route-target communities  
RT:100:1001  
Import VPN route-target communities RT:100:1001  
No import route-map No export route-map  
Pesaro# show ip vrf interfaces Interface IP-Address VRF Protocol  
Loopback101 200.0.6.1 Customer\_A up Loopback111 200.1.6.1 Customer\_A up Loopback102 200.0.6.1 Customer\_B up

#### NEW QUESTION 781

Which three configuration options are available for configuring the l2tp-class command in L2TPv3? (Choose three)

- A. TCP port
- B. authentication
- C. IP DF bit
- D. retransmit retries
- E. sequencing
- F. hostname

**Answer:** BDF

**Explanation:** On Cisco 7200, l2tp-class options available are; R1(config-l2tp-class)#?  
l2tp-class configuration commands:  
accounting Method list to use for tunnel accounting authentication Authenticate the L2TP control connection cookie Local cookie options default Set a command to its defaults digest Message Digest Authentication for the L2TP control connection exit Exit from l2tp-class configuration  
mode hello Set HELLO message interval hidden Hide AVPs in outgoing control messages hostname Local hostname for control connection authentication no  
Negate a command or set its defaults password Password for control connection authentication, AVP hiding receive-window Receive window size for the control connection retransmit Control message retransmission parameters timeout Control connection timeout parameters R1(config-l2tp-class)#retransmit ?  
initial SCCRP message retries/timeout settings  
retries Number of retries before tearing down a control connection timeout Control packet retransmission  
timeout parameters R1#sh run | be l2tp-class l2tp-class test authentication  
hostname TESTNODE retransmit retries 5

#### NEW QUESTION 786

IP over DWDM management models (Choose two.)

- A. Segmented Management
- B. Integrated Management
- C. Virtual Transponder
- D. Traffic Management

**Answer:** AB

**Explanation:** 1.2. IP over DWDM IPoDWDM supports 2 network management models:

1. Segmented Management:

- Retain existing operational model for certain SPs.
- Respect boundaries between IP/Transport groups.

2. Integrated Management:

- End to end provisioning.
- Better troubleshooting.
- 1 Management system, 1 database.
- Unified look & feel.
- Lower OPEX.

Lay the Foundation for Network Convergence

IP over dense wavelength-division multiplexing (IPoDWDM) is a technology pioneered by Cisco that delivers superior service flexibility, scalability, and resiliency. It allows carriers to capitalize on increasingly bandwidth intensive and complex applications for next-generation Internet innovations and collaborative business services.

Enhance Your IP Transport Through Innovation

IPoDWDM collapses network layers by tightly integrating DWDM interfaces with the routing platform. This increases efficiency, simplifies management, and accelerates service delivery. Combined with industry-leading omnidirectional and colorless reconfigurable optical add/drop multiplexer (ROADM) technology, IPoDWDM educes service truck rolls, power consumption, and space and cooling requirements. Numerous providers now use the power of IPoDWDM to distribute video content rapidly and efficiently over an all-IP network. They can provision additional network capacity instantly as demand increases for any-play consumer and managed business services. The Cisco IPoDWDM solution

reduces transport elements, while supporting advanced multilayer features such as proactive protection and control plane interaction, dramatically reducing operating expenses and capital costs.

Benefit from Valuable Product Enhancements

The Cisco IPoDWDM solution features:

Ultra long haul 100 Gb IPoDWDM capability, using the Cisco CRS 1-Port 100 Gigabit Ethernet Coherent

DWDM Interface Module

100 Gb coherent regeneration using the single-slot, 100 Gb trunk card on the ONS 15454 Multiservice

Transport Platform (MSTP), fully compatible with proactive protection.

Proactive protection on the Cisco ASR 9000 Series 2-Port and 1-Port 100 Gigabit Ethernet Line Cards

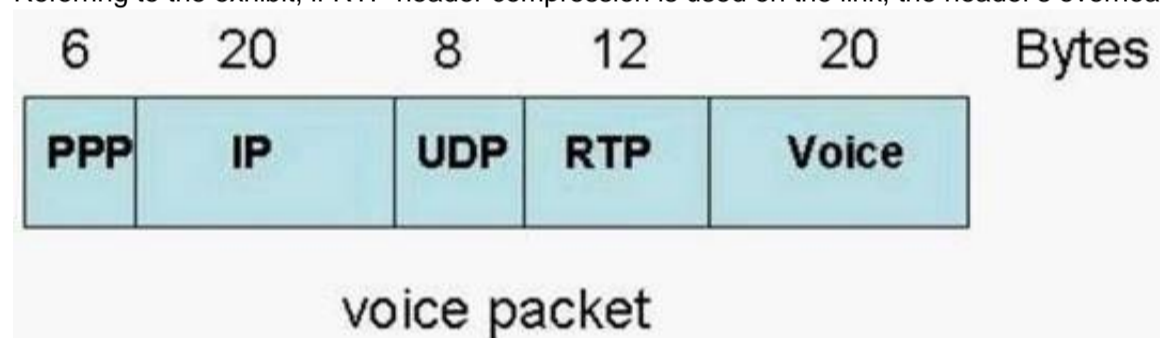
Industry-leading 10 Gb IPoDWDM density on the ASR 9000 Series 36-Port and 24-Port 10 Gigabit Ethernet

Line Cards

Complete Generalized Multiprotocol Label Switching (GMPLS) interoperability between the CRS-3, ASR 9000, and ONS 15454 MSTP

#### NEW QUESTION 788

Referring to the exhibit, if RTP header compression is used on the link, the header's overhead on the voice packet will be reduced by what percent?



- A. from 50% to 25%
- B. from 50% to 20%
- C. from 70% to 20%
- D. from 70% to 33%

**Answer:** D

#### NEW QUESTION 790

How would you characterize the source and type in a denial of service attack on a router?

- A. By perform a show ip interface to see the type and source of the attack based upon the access-list matches
- B. By setting up an access-list to permit all ICMP, TCP, and UDP traffic with the log or log- input commands, then use the show access-list and show log commands to determine the type and source of attack
- C. By performing a show interface to see the transmitted load "txload" and receive load "rxload", if the interface utilization is not maxed out, there is no attack underway
- D. By applying an access-list to all incoming and outgoing interfaces, turning off route- cache on all interfaces, then, when telnetting into the router perform a debug IP packet detail

**Answer:** B

#### NEW QUESTION 795

When configuring Multicast VPN (MVPN) over an MPLS core, both the Default and Data MDT is configured under which configuration mode?

- A. router(config-router)#
- B. router(config)#
- C. router(config-router-af)#
- D. router(config-if)#
- E. router(config-vrf)#

**Answer:** E

**NEW QUESTION 797**

Which statement about L2VPN Pseudowire Switching is not true?

- A. L2VPN Pseudowire Switching allows the user to extend L2VPN Pseudowires across an inter- AS boundary
- B. L2VPN Pseudowire Switching allows the user to extend L2VPN Pseudowires across two separate MPLS networks.
- C. Quality of service is not supported per Pseudowire
- D. L2VPN Pseudowire Switching connects two or more contiguous Pseudowires segments to form an end-to-end multi-hop Pseudowire
- E. The Cisco MPLS Traffic Engineering tunnel selection is not supported

**Answer: E**

**Explanation:** Reference E.

[http://www.cisco.com/en/US/docs/ios/12\\_0s/feature/guide/fsstitch.html#wp1053770](http://www.cisco.com/en/US/docs/ios/12_0s/feature/guide/fsstitch.html#wp1053770)

**NEW QUESTION 802**

Which three things are the building blocks of the Cisco VPLS architecture? (Choose three)

- A. VLAN Trunk Protocol (VTP)
- B. State Synchronization Protocol (SSP)
- C. L2VPN
- D. Ethernet Virtual Switch Interface (VSI)
- E. Label Distribution Protocol (LDP)

**Answer: CDE**

**NEW QUESTION 807**

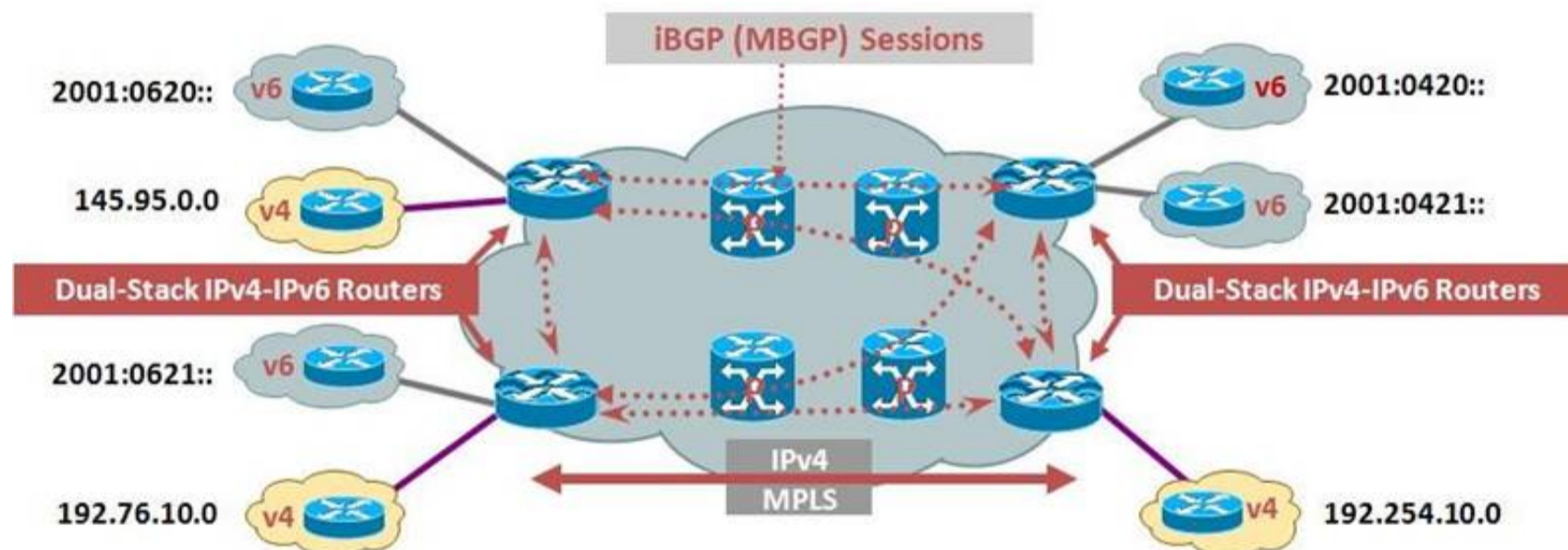
Which two statements are correct with regard to route distinguisher as defined in RFC 4364 AKA IP-VPN (MPLS-VPN)? (Choose two.)

- A. The configuration to define Route-Distinguisher is `ip vrf CNT rd 1:1`
- B. A route distinguisher can be imported and exported to and from a VRF
- C. Route-Distinguisher is an 8 byte BGP attribute value used in influencing BGP best path algorithm.
- D. Route-Distinguisher is an 8 byte value used in creating unique VPNv4 address.

**Answer: AD**

**NEW QUESTION 808**

Refer to the exhibit.



Which IPv6 deployment feature is displayed?

- A. MPLS 6PE
- B. MPLS 6VPE
- C. 6 to 4 Replay Service
- D. native IPv6 over MPLS
- E. 6 to 4 Tunnel

**Answer: A**

**NEW QUESTION 811**

Which two statements about Layer 3 MPLS VPN are true? (Choose two.)

- A. The virtual routing and forwarding table is separate from the global routing table that exists on PE routers. Routes are injected into the VRF from the CE-PE routing protocols for that VRF and any MP-BGP announcements that match the defined VRF RTs.
- B. Multiprotocol Border Gateway Protocol is run between PE and CE routers to exchange customer prefixes in a VPNv4 format.
- C. A customer edge router peers at Layer 3 to the provider edge
- D. The PE-CE interface runs either a dynamic routing protocol (eBGP, RIPv2, EIGRP, OSPF) or a static routing protocol (Static, Connected).
- E. VPNv4 address is the combination of the RT and customer IPv4 prefix
- F. These VPNv4 prefixes are passed in MP-BGP.

**Answer: AC**

**NEW QUESTION 813**

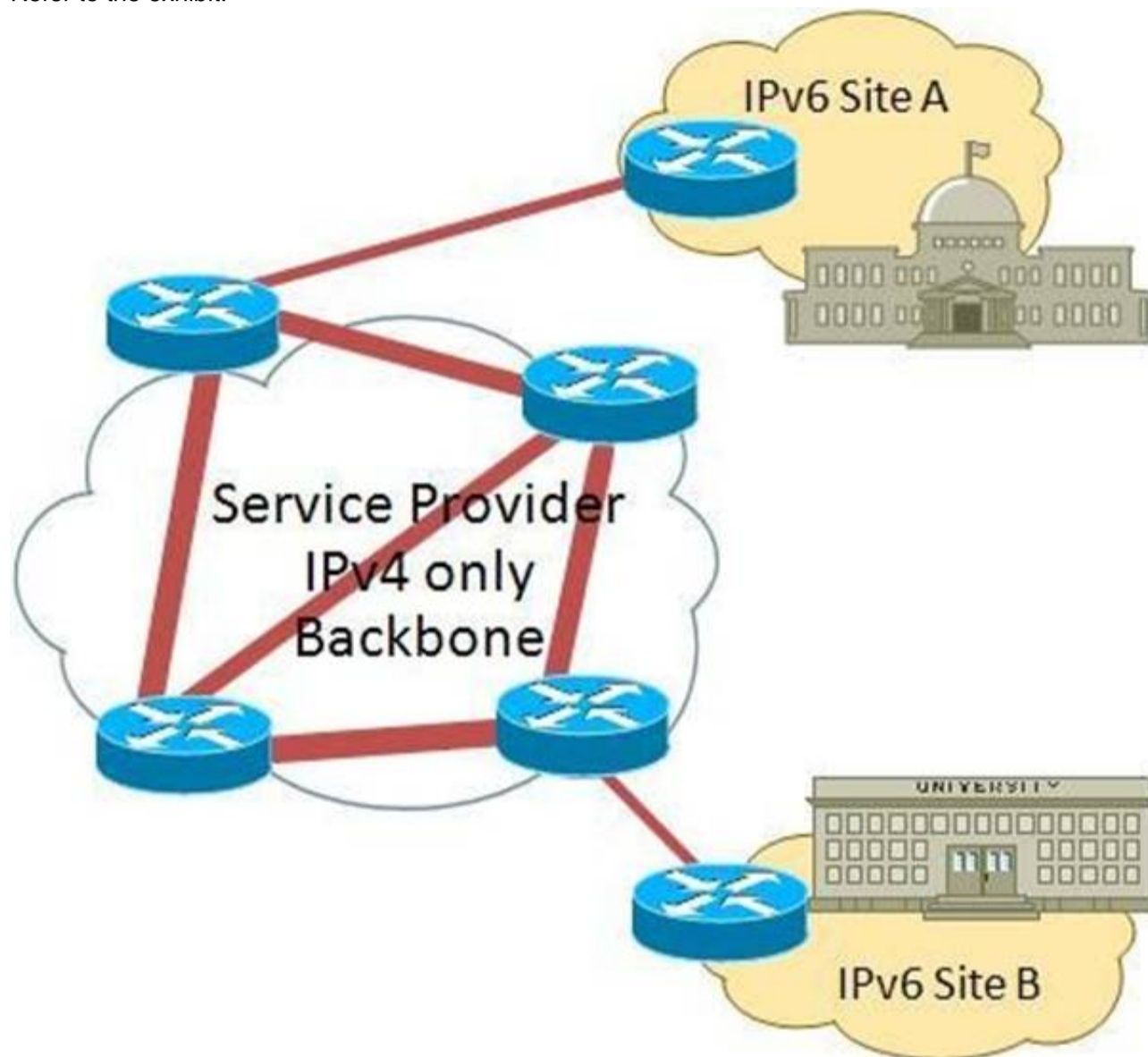
Option 10C is an implementation of Inter-AS MPLS VPN. Which two statements about Option 10C are true? (Choose two.)

- A. Great scalability is offered
- B. Route Target Rewrite must be configured on ASBRs
- C. Multihop EBGp is utilized between route reflectors
- D. Multihop EBGp is utilized between ASBRs
- E. The ASBRs hold VPNv4 routes

**Answer:** AC

**NEW QUESTION 815**

Refer to the exhibit.



The service provider is an MPLS and IPv4 enabled network. Which two approaches can enable IPv6 tunneling between site A and site B over the backbone? (Choose two.)

- A. IPv6 customer premise (6CP) over MPLS
- B. IPv6 VPN provider edge (6VPE) over MPLS
- C. IPv6 virtual forwarding (6VF) over MPLS
- D. IPv6 forwarding instance (6FI) over MPLS
- E. IPv6 provider edge router (6PE) over MPLS

**Answer:** BE

**NEW QUESTION 818**

How many bits does EXP occupy in the MPLS label header?

- A. 8
- B. 4
- C. 3
- D. 1
- E. 2

**Answer:** C

**NEW QUESTION 819**

There is MPLS VPN traffic traversing through a TE intermediate router. What is the MPLS packet label stack sequence (from outer to inner) for the VPN traffic on this router?

- A. VPN label, IGP label, TE label
- B. TE label, IGP label, VPN label
- C. IGP label, VPN label, TE label
- D. TE label, VPN label, IGP label
- E. IGP label, TE label, VPN label

**Answer:** B

#### NEW QUESTION 820

All secure domain routers (SDRs) have shared attribute and resources. Which three resources are shared all SDRs? (Choose three.)

- A. privilege-level configuration
- B. fabric cards
- C. SNMP traps
- D. admin-level configuration
- E. exec-level configuration

**Answer:** BCD

**Explanation:** 1.4. SP high end product

There are shared attributes and resources common to all SDRs. It is important to note that the shared resources are critical to the system's overall operation.

Some examples of shared resources that are common to SDR are:

- Environmental resources.
- Power supplies.
- Fan trays.
- Fan controllers.
- Fabric cards.

Software related:

- \* Exec-level configuration. Configuration in admin mode can affect all SDRs.
- \* Admin-level configuration. Admin-level command can impact owner SDR and non-owner SDRs.
- \* Process instances. A few processes are shared, systemwide processes such as LRd (SDR Deamon).

Management:

- \* SNMP traps. For example, shared power, fans, and fabric-related traps.
- \* SNMP polling. Shared for power, fans, and fabric-related MIBS.
- \* Syslogs. Some non-owner SDRs are logged to the owner SDR.
- \* Shared environment variables.

#### NEW QUESTION 823

What is the main difference between the information displayed on the dspload and the dsptrkutl screens?

- A. The dspload screen is for all trunks; the dsptrkutl screen is for one trunk.
- B. The dspload screen shows the expected traffic; the dsptrkutl screen shows actual traffic.
- C. The information on the dspload screen never changes; the dsptrkutl screen is dynamic
- D. The dspload screen shows historical information; the dsptrkutl screen shows current information.

**Answer:** B

**Explanation:** Displays both the used and available bandwidth (both in the transmit and receive directions) for each trunk at the specified node. The "transmit" direction is from the node specified and to the node at the other end of the trunk. In the screen display, the numbers of disabled trunks appear in dim, reverse video on the screen.

dsptrkutl

Displays dynamic utilization information for a specified trunk. The trunk must be upped and added to use this command. The following lists the trunk utilization and terminated connection parameters included in the display. The parameter values are updated according to the specified or default interval and the screen remains displayed until the

DEL key is depressed. Disabled trunks have their trunk number displayed in dim, reverse video on the screen.

#### NEW QUESTION 825

Which three statements about L2TPv3 are true? (Choose three)

- A. L2TPv3 Frame Relay support includes only 32-bit DLCI addressing.
- B. L2TPv3 sessions do not support Frame Relay LMI interworking.
- C. Multipoint DLCI is not supported.
- D. To use DCE or a Network-to-Network Interface on a Frame Relay port, you must configure the frame-relayswitching command.
- E. L2TPv3 feature does not support Frame Relay extended addressing.

**Answer:** CDE

**Explanation:** Frame Relay-Specific Restrictions

- Frame Relay per-DLCI forwarding and port-to-port trunking are mutually exclusive. L2TPv3 does not support the use of both on the same interface at the same time.
- The xconnect command is not supported on Frame Relay interfaces directly. For Frame Relay, the Xconnect is applied under the connect command specifying the DLCI to be used.
- Changing the encapsulation type on any interface removes any existing xconnect command applied to that interface.
- To use DCE or a Network-to-Network Interface (NNI) on a Frame Relay port, you must configure the framerelay switching command.
- The configuration of an L2TPv3 session on a Multilink Frame Relay (MLFR) bundle interface is supported only on Cisco 12000 series Two-Port Channelized OC-3/STM-1 (DS1/E1) and Six-Port Channelized T3 (T1) line cards. (For more information, see Binding L2TPv3 Sessions to Multilink Frame Relay Interfaces.)
- Frame Relay policing is nondistributed on the Cisco 7500 series. By configuring Frame Relay policing, you cause traffic on the affected PVCs to be sent to the RSP for processing.
- Frame Relay support is for 10-bit DLCI addresses. Frame Relay Extended Addressing is not supported.
- Multipoint DLCI is not supported.
- The keepalive will automatically be disabled on interfaces that have an Xconnect applied to them, except for Frame Relay encapsulation, which is a requirement for LMI.
- Static L2TPv3 sessions will not support Frame Relay LMI interworking.

#### NEW QUESTION 827

Which four statements about the Carrier Supporting Carrier (CSC) feature are true? (Choose four.)

- A. MPLS is required between the PE and CE routers that connect the backbone carrier to the customer carrier.
- B. The backbone carrier must enable the PE router to check that the packets it receives from the CE router contain only the labels that the PE router advertised to the CE router.
- C. Every packet that crosses the backbone carrier must be encapsulated so that the packet includes MPLS labels
- D. All PE routers that link the backbone carrier to the customer carrier must run Route Target Rewrite.
- E. A routing protocol is required between the PE and CE routers that connect the backbone carrier to the customer carrier.
- F. The routing protocol enables the customer carrier to exchange IGP routing information with the backbone carrier.

**Answer:** ABCE

#### NEW QUESTION 829

In relation to MPLS Multicast VPN, which three statements about multicast distribution (MDT) groups are true? (Choose three)

- A. Default MDT groups are used for PIM control traffic, low-bandwidth sources, and flooding of sparse mode traffic.
- B. MDTs are built in customer networks
- C. Data MDT groups are used for high-bandwidth sources to reduce replication to uninterested PEs.
- D. MDTs are built in provider networks
- E. The number of MDTs depends on PIM modes of MDT groups.

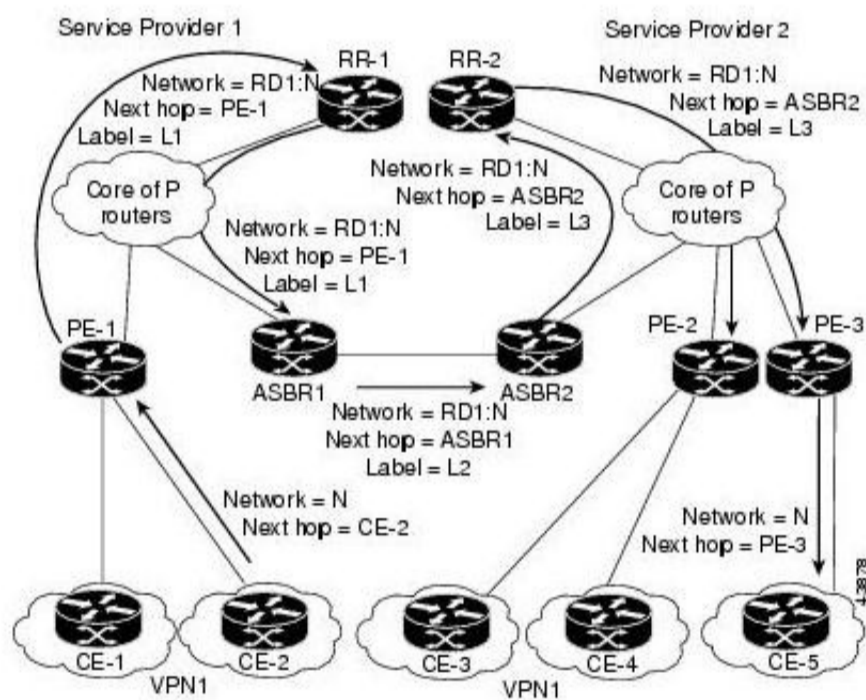
**Answer:** CDE

**Explanation:** •Default-MDT

Tree created by the MVPN configuration. The Default-MDT is used for customer Control Plane and low rate Data Plane traffic. It connects all of the PE routers with MVRFs in a particular MD and one will exist in every MD whether there is any active source in the respective customer network.

#### NEW QUESTION 832

Refer to the exhibit.



The exhibit illustrates the exchange of VPN route and label information between MPLS VPN inter-AS. The exhibit also shows ASBRs exchanging VPN-IPv4 addresses.

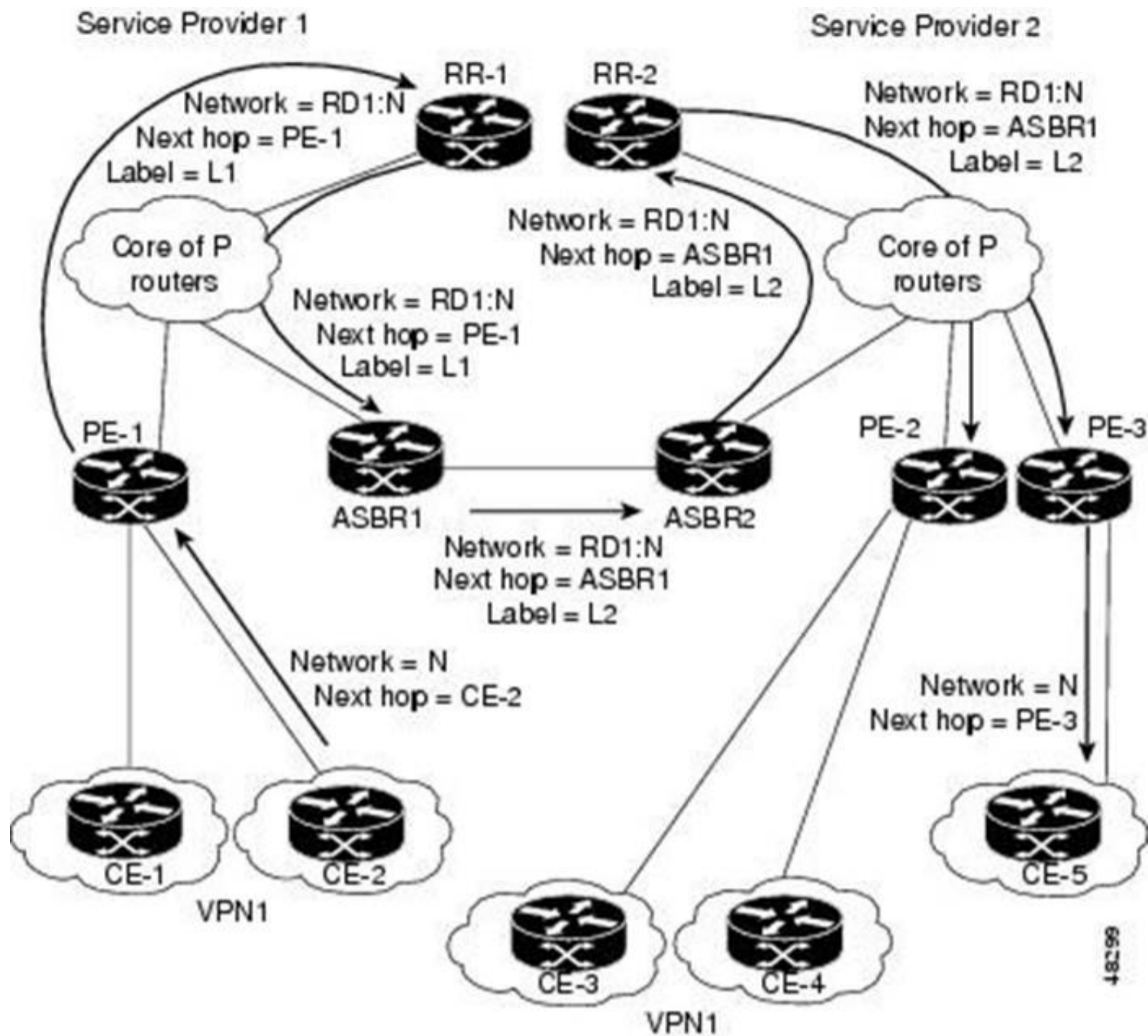
Which command is needed to change the next-hop address when ASBR2 is not configured?

- A. Redistribute command with the BGP routing process
- B. Redistribute command with connected
- C. Redistribute command with the IGP routing process
- D. Redistribute command with static

**Answer:** B

**Explanation:** Figure 11-3 illustrates the exchange of VPN route and label information between autonomous systems. The only difference is that ASBR2 is configured with the redistribute connected command, which propagates the host routes to all PEs. The redistribute connected command is necessary because ASBR2 is not the configured to change the next hop address.

Figure 11-3 Host Routes Propagated to All PEs Between Two Autonomous Systems



Reference:  
[http://www.cisco.com/en/US/docs/net\\_mgmt/ip\\_solution\\_center/4.0/mps/user/guide/11\\_isc.html](http://www.cisco.com/en/US/docs/net_mgmt/ip_solution_center/4.0/mps/user/guide/11_isc.html)

#### NEW QUESTION 835

Which descriptions of Netflow is correct? (Choose three.)

- A. By default, Netflow records bidirectional IP traffic flow.
- B. Netflow answers questions regarding IP traffic.
- C. who, what, where, when, and how
- D. Netflow accounts for both transit traffic and traffic destined for the router.
- E. Netflow returns the subinterface information in the flow records.

**Answer:** BCD

#### NEW QUESTION 836

Which three of these statements about the IP service level agreement (SLA) sender are true? (Choose three)

- A. SLA sender target can be an IP host
- B. SLA sender sends a probe packet and a response probe packet
- C. SLA sender sends a probe packet
- D. SLA sender target must be a router
- E. SLA sender target can be an IP SLA responder

**Answer:** ACE

#### NEW QUESTION 841

Which of the following descriptions about IP spoofing is correct?

- A. IP destination address is forged
- B. IP source address is forged
- C. IP TCP destination port is forged
- D. None of above
- E. IP TCP source port is forged

**Answer:** B

**Explanation:** 1.13. Security in core

#### NEW QUESTION 844

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 l2transport	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:** Step 1 – frame-relay switching Step 2 – pseudowire-class name Step 3 – encapsulation mpls Step 4 – interworking  
 Step 5 – connect name serial-interface DLCI l2transport Step 6 –xconnect IP address circuit-id pw-class name

#### NEW QUESTION 846

What is a limitation of implementing uRPF?

- A. Domain name must be defined.
- B. MPLS LDP must be enabled.
- C. BGP routing protocol must be running.
- D. Symmetrical routing is required.
- E. Named access-lists must be configured.

**Answer:** D

#### NEW QUESTION 850

Which two statements are correct?

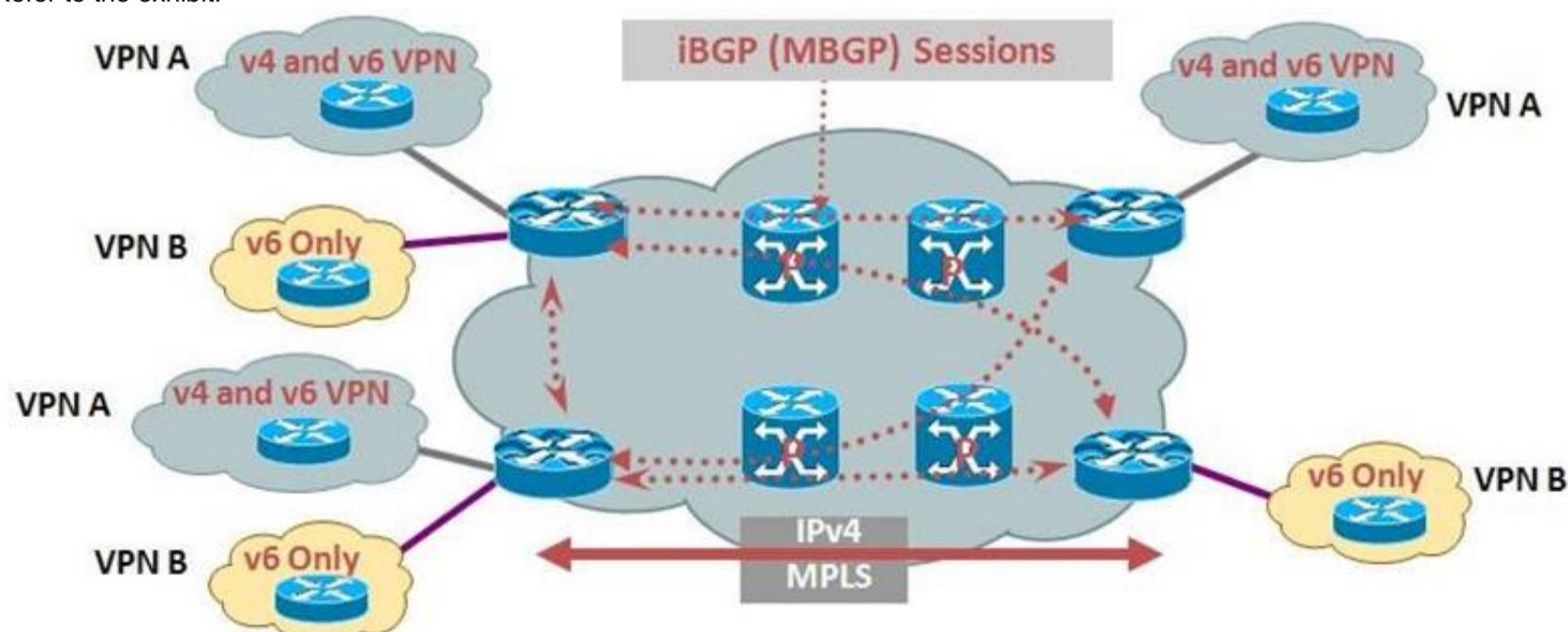
- A. A VC type 5 transports a VLAN over MPLS.
- B. A VC type 4 tunnels an Ethernet port over MPLS.
- C. A VC type 5 tunnels an Ethernet port over MPLS.
- D. A VC type 4 transports a VLAN over MPLS.

**Answer:** CD

**Explanation:** VC Type 4 is used for Ethernet VLAN mode. VC Type 5 is used for Ethernet Port mode.

#### NEW QUESTION 855

Refer to the exhibit.



Which IPv6 deployment feature is displayed?

- A. MPLS 6PE
- B. MPLS 6VPE
- C. 6 to 4 Replay Service
- D. native IPv6 over MPLS
- E. 6 to 4 Tunnel

**Answer:** B

**NEW QUESTION 857**

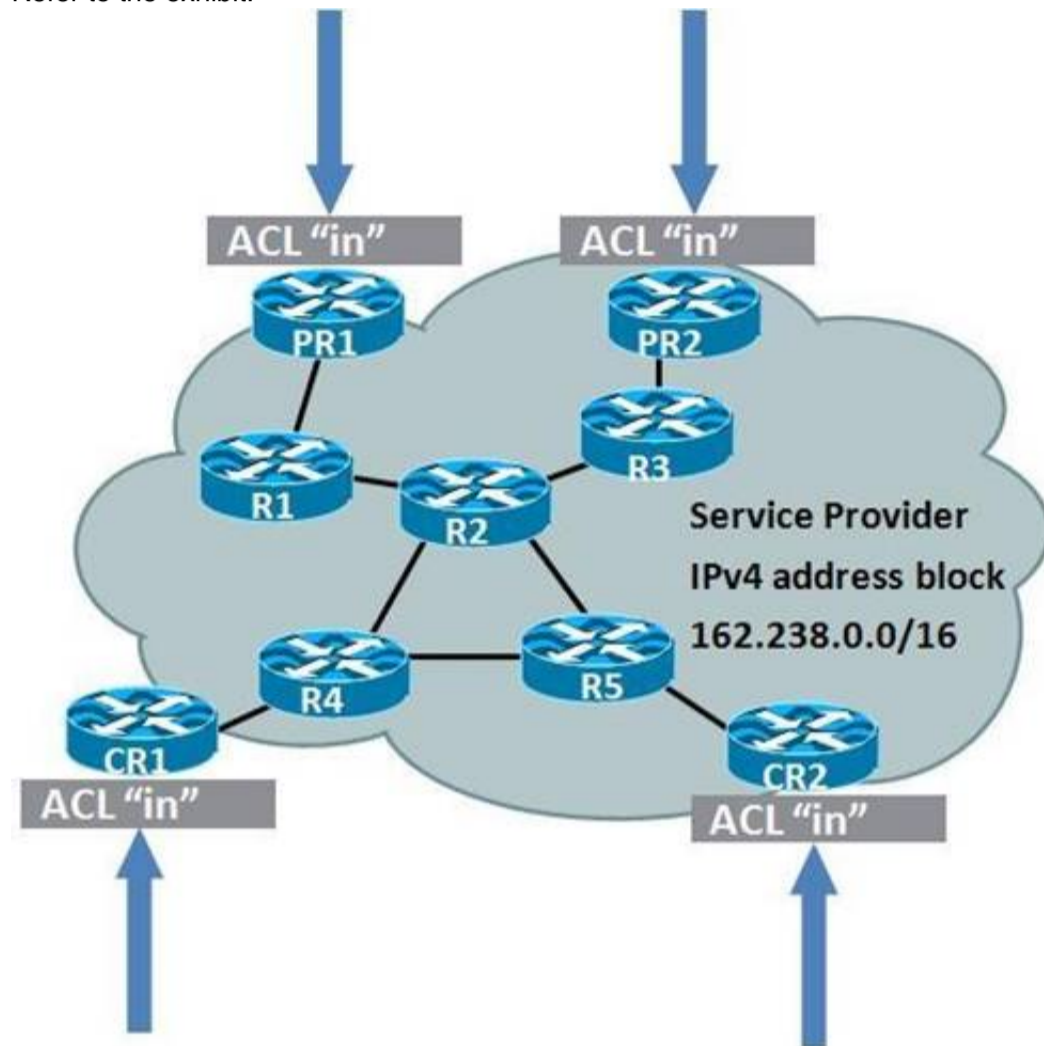
Which IOS features are used to avoid Routing loops when dynamic Routing protocols are used between PE and CE in MPLS-VPN networks? (Choose two)

- A. BGP cost community
- B. BGP feature allow-as in
- C. Access-list Control in Distance Vector protocol like RIP and EIGRP.
- D. SHAM links with OSPF
- E. RPF Reverse Path forwarding.
- F. Site Of Origin SOO.

**Answer:** CF

**NEW QUESTION 862**

Refer to the exhibit.



Inbound infrastructure ACLs are configured to protect the SP network. Which two types of traffic should be permitted in the infrastructure ACL? (Choose two.)

- A. traffic destined for network of 172.30.0.0/16
- B. traffic source from network of 172.30.0.0/16
- C. traffic destined for network of 162.238.0.0/16
- D. traffic source from network of 162.238.0.0/16
- E. traffic destined for network of 232.16.0.0/16

**Answer:** CE

**NEW QUESTION 865**

What is used to provide read access to QoS configuration and statistics information on Cisco platforms that support Modular QoS CLI (MQC)?

- A. Cisco SDM QoS Wizard
- B. Cisco AutoQoS
- C. CDP
- D. Cisco Class-Based QoS MIB.
- E. Cisco NBAR Discovery

**Answer:** D

**NEW QUESTION 867**

A network administrator wants to detect a login attack against a router. What IOS command can make the attack recorded in syslog server?

- A. Login detect login-failure log
- B. none of the above
- C. Logging detect fail-login
- D. Login on-failure log
- E. Logging login on-failure

**Answer:** D

**NEW QUESTION 869**

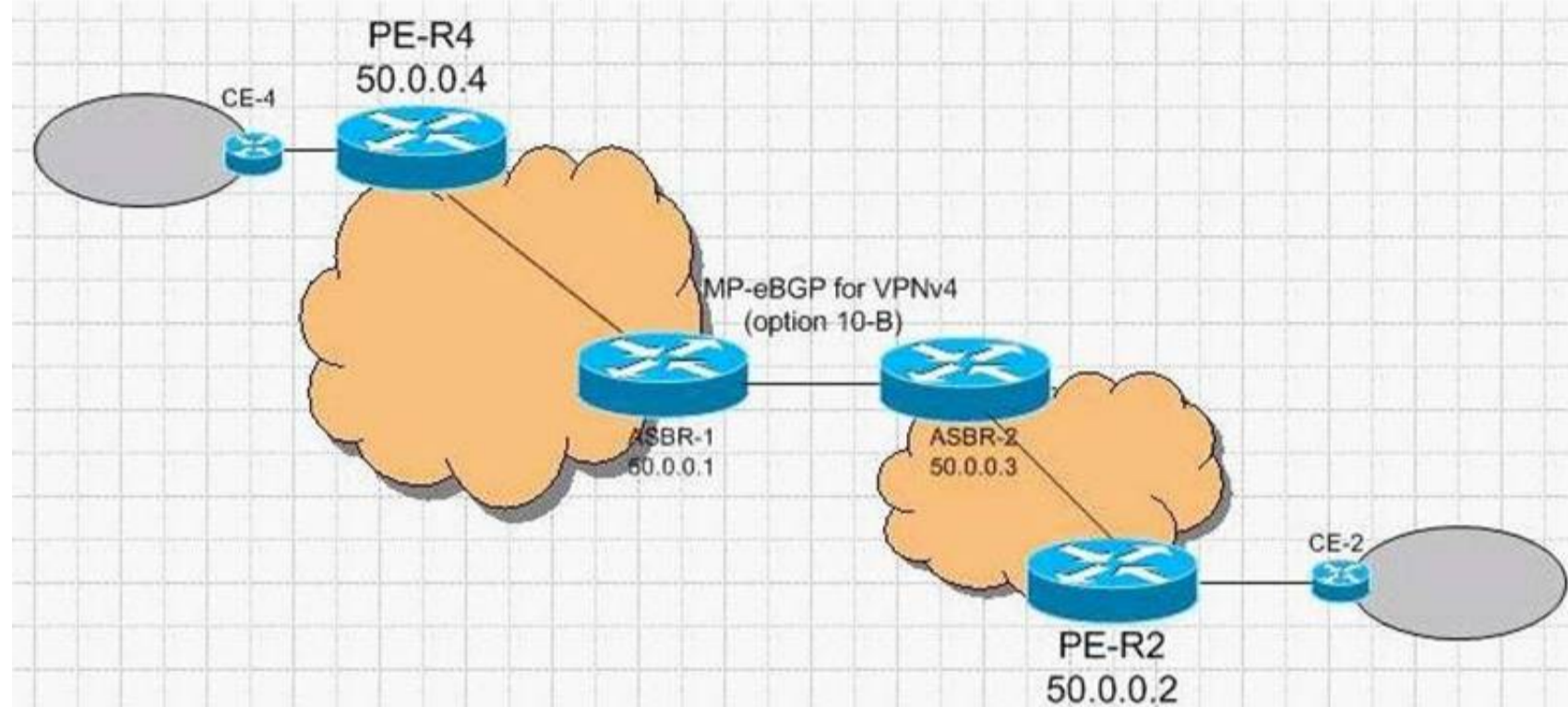
What are two uRPF working modes? (Choose two.)

- A. express mode
- B. safe mode
- C. loose mode
- D. strict mode
- E. tight mode

**Answer:** CD

#### NEW QUESTION 873

In the Inter-AS VPN deployment shown in the diagram, what is the Next Hop address of MP-IBGP Update for CE4 network received at PE-R2?



- A. ASBR-2 50.0.0.3
- B. PE-R2 50.0.0.2
- C. PE-R4 50.0.0.4
- D. ASBR-1 50.0.0.1

**Answer:** A

#### NEW QUESTION 875

Which three of these statements about PPPoE are true? (Choose three.)

- A. PPPoE can provide a host with access to a destination over Ethernet
- B. You can have only one PPPoE session per PVC.
- C. You must install PPPoE client software on all hosts that connect to the Ethernet segment
- D. This means that the access provider must maintain a CPE.
- E. You cannot use PPPoE with Cisco Service Selection Gateway.
- F. PPPoE implementation is susceptible to broadcast storms and possible denial-of-service attacks.
- G. Per-session accounting is possible, which allows the service provider to charge the subscriber based on session time for various services offered
- H. The service provider can also require a minimum access charge.

**Answer:** BDE

#### NEW QUESTION 878

What is the typical marked DSCP value for a voice signaling packet in VoIP technology?

- A. BE
- B. AF41
- C. AF21
- D. EF
- E. AF31

**Answer:** E

#### NEW QUESTION 881

In Multicast VPN (MVPN) implementations, which two of the following statements are regarding the Default MDT Group? (Choose two).

- A. It is used for PIM control traffic.
- B. It is optionally configured for a high bandwidth multicast source to reduce multicast traffic replication to uninterested PE routers.
- C. Within the VRF configuration in the PE router, multiple Default MDT groups are configured so each VRF can support multiple multicast sources.
- D. There is a reduced multicast state in the MPLS core P routers.
- E. When multicast traffic exceeds a certain configured threshold, traffic from the Data MDT is switched to the Default MDT to conserve bandwidth.

**Answer:** AD

**Explanation:** MVPN supports two MDT types:

- Default MDT—The default MDT is a permanent channel for PIM control messages and low-bandwidth streams between all PE routers in a particular multicast domain. All multicast traffic in the default MDT is replicated to every other PE router in the domain. Each PE router is logically seen as a PIM neighbor (one hop away) from every other PE router in the domain.
- Data MDT—Data MDTs are optional. If enabled, they are dynamically created to provide optimal paths for high-bandwidth transmissions, such as full-motion video, that do not need to be sent to every PE router. This allows for on-demand forwarding of high-bandwidth traffic between PE routers, so as to avoid flooding every PE router with every high- bandwidth stream that might be created.

#### NEW QUESTION 886

In the context of MPLS, what is the correct action to be performed when an aggregate label is received?

- A. It replaces the bottom label in the MPLS label stack with a VPN label and propagates
- B. It replaces the top label in the MPLS label stack with a VPN label and propagates
- C. It adds the VPN label into the top label in the MPLS label stack
- D. It removes the top label in the MPLS label stack and does a Layer 3 lookup on underlying IP packets

**Answer:** D

#### NEW QUESTION 888

In optical channel transport unit overhead (OTU OH), what are general communication channels 1 and 2 (GCC1/GCC2) used for?

- A. for trail trace identification
- B. as the backward defect indicator
- C. to transmit information between OTU termination points
- D. to extend command and management functions over several frames
- E. General communication channels 1 and 2 (GCC1/GCC2) do not belong to OTU OH.

**Answer:** E

**Explanation:** OTU overhead:

The OTU overhead consists of three bytes for section monitoring (SM), a two-byte general communications channel (GCC0), and two bytes reserved for future international standardization.

#### NEW QUESTION 890

Which two features must be configured to perform AToM NSF? (Choose two)

- A. FRR
- B. SSO
- C. distribute CEF
- D. switch virtual path
- E. graceful restart

**Answer:** BE

**Explanation:** Before you configure AToM NSF, you need to configure MPLS LDP Graceful Restart. MPLS LDP GR is enabled globally. When you enable LDP GR, it has no effect on existing LDP sessions. LDP GR is enabled for new sessions that are established after the feature has been globally enabled.

How AToM NSF Works

AToM NSF improves the availability of the network of the service provider that uses AToM to provide Layer 2 VPN services. HA provides the ability to detect failures and handle them with minimal disruption to the service being provided. AToM NSF is achieved by SSO and NSF mechanisms. A standby RP provides control-plane redundancy. The control plane state and data plane provisioning information for the attachment circuits (ACs) and AToM pseudowires (PWs) are checkpointed to the standby RP to provide NSF for AToM L2VPNs.

#### NEW QUESTION 891

Identify the differences of option 10A, as opposed to option 10C, for interAS vpn offerings For option 10A? (Choose three).

- A. Greater scalability is offered
- B. The ASBR holds VPNv4 routes
- C. Relative technical simplicity is offered
- D. Lower relative security is offered
- E. Multihop eBGP between ASBRs is utilized
- F. Better suitability for InterProvider VPNs is provided

**Answer:** BCF

#### NEW QUESTION 895

Which statements about the Route Target Rewrite feature are not true? (Choose two.)

- A. After the route target replacement policy is applied to the target router, the BGP session need not be refreshed manually to put the policy into operation.
- B. Route Target Rewrite allows the administration of the routing policy to stay local to the AS.
- C. Route target replacement is always done by the ASBR.
- D. Route target rewrites are supported for VRF export maps.
- E. Route target replacement can be done on incoming and outgoing BGP updates.

**Answer:** AC

**Explanation:** The MPLS VPN—Route Target Rewrite feature allows the replacement of route targets on incoming and outgoing Border Gateway Protocol (BGP)

updates. Typically, Autonomous System Border Routers (ASBRs) perform the replacement of route targets at autonomous system boundaries. Route Reflectors (RRs) and provider edge (PE) routers can also perform route target replacement. The main advantage of the MPLS VPN - Route Target Rewrite feature is that it keeps the administration of routing policy local to the autonomous system.

#### NEW QUESTION 897

Which three modes are the operating of HDLC? (Choose three)

- A. asynchronous balanced mode (ABM)
- B. normal response mode (NRM)
- C. normal peer mode (NPM)
- D. asynchronous client mode (ACM)
- E. asynchronous response mode (ARM)

**Answer:** ABE

**Explanation:** Normal response mode allows operation over half-duplex communication links, as long as the primary is aware that it may not transmit when it has given permission to a secondary.

Asynchronous response mode is an HDLC addition[1] for use over full-duplex links. While retaining the primary/secondary distinction, it allows the secondary to transmit at any time. Asynchronous balanced mode added the concept of a combined terminal which can act as both a primary and a secondary. There are some subtleties about this mode of operation; while many features of the protocol do not care whether they are in a command or response frame, some do, and the address field of a received frame must be examined to determine whether it contains a command (the address received is ours) or a response (the address received is that of the other terminal).

#### NEW QUESTION 902

Which of the following statements regarding Selective Packet Discard (SPD) is correct?

- A. Selective Packet Discard (SPD) is a mechanism to drop non-routing packets instead of routing packets when the process level queue is congested.
- B. Selective Packet Discard (SPD) is a mechanism to drop normal IP packets instead of VOIP packets when the link is overloaded
- C. None of above.
- D. Selective Packet Discard (SPD) is a mechanism to drop Frame Relay frames with the DE bit set instead of Frame Relay frames DE bits without being set when the link is overloaded
- E. Selective Packet Discard (SPD) is a mechanism to drop packets with low IP precedence instead of packets with high IP precedence when the link is overloaded

**Answer:** A

#### NEW QUESTION 905

Which statement about SNMP is true?

- A. SNMP version 2 uses a proxy agent to forward GetNext message to SNMP version 3.
- B. SNMP version 2 supports message integrity to ensure that a packet has not been tampered with in transit.
- C. Proxy agents were used only in SNMP version 1.
- D. SNMP version 3 supports encryption and SNMP version 2 support authentication.
- E. GetBulk messages are converted to GetNext messages by the proxy agent and are then forwarded to the SNMP version 1 agent.

**Answer:** E

**Explanation:** Proxy agents:

A SNMPv2 agent can act as a proxy agent on behalf of SNMPv1 managed devices, as follows:

A SNMPv2 NMS issues a command intended for a SNMPv1 agent. The NMS sends the SNMP message to the SNMPv2 proxy agent.

The proxy agent forwards Get, GetNext, and Set messages to the SNMPv1 agent unchanged.

GetBulk messages are converted by the proxy agent to GetNext messages and then are forwarded to the SNMPv1 agent.

The proxy agent maps SNMPv1 trap messages to SNMPv2 trap messages and then forwards them to the NMS.

SNMPv3 provides important security features:[11]

Confidentiality - Encryption of packets to prevent snooping by an unauthorized source. Integrity - Message integrity to ensure that a packet has not been tampered while in transit including an optional packet replay protection mechanism.

Authentication - to verify that the message is from a valid source.

#### NEW QUESTION 907

How many content definitions does CSG allow?

- A. 40
- B. 400
- C. 4000
- D. 40,000

**Answer:** C

**Explanation:** CISCO CSG CONFIGURATION LIMITS

- 256 total virtual LANs (client and server)
- 4000 content definitions
- 1024 services
- 16,000 access control list (ACL) items
- Up to six Cisco CSGs and/or CSMs can be installed in a Cisco Catalyst 6500 Series or Cisco 7600 Series chassis

#### NEW QUESTION 909

Which statement about implementing the Cisco IPv6 provider Edge Router over MPLS is true?

- A. 6PE feature is supported over tunnels other than RSVP-TE tunnels.
- B. Core MPLS routers are supporting IPv6 only.
- C. 6PE feature is not supported over tunnels other than RSVP-TE tunnels.
- D. Core MPLS routers are supporting IPv4 only.

**Answer: C**

**Explanation:** Reference. [http://www.cisco.com/en/US/docs/ios/ipv6/configuration/guide/ip6-over\\_mpls.pdf](http://www.cisco.com/en/US/docs/ios/ipv6/configuration/guide/ip6-over_mpls.pdf)

The following restrictions apply when implementing the IPv6 Provider Edge Router over MPLS (6PE) feature:

Core MPLS routers are supporting MPLS and IPv4 only, so they cannot forward or create any IPv6 Internet Control Message Protocol (ICMP) messages.

Load balancing ability is not provided by Cisco 6PE between an MPLS path and an IPv6 path. If both are available, the MPLS path is always preferred. Load balancing between two MPLS paths is possible. BGP multipath is not supported for Cisco 6PE routes. If two BGP peers advertise the same prefix with an equal cost, Cisco 6PE will use the last route to cross the MPLS core.

6PE feature is not supported over tunnels other than RSVP-TE tunnels.

#### NEW QUESTION 913

What Cisco IOS feature examines packets received to make sure that the source address and interface are in the routing table and match the interface that the packet was received on?

- A. MPLS Traffic Engineering
- B. Receive ACL
- C. Unicast RPF
- D. Authentication
- E. Dynamic access-lists

**Answer: C**

#### NEW QUESTION 915

BCP (Best Common Practices) 38/RFC 2827 Ingress and Egress Packet Filtering would help mitigate what classification of attack?

- A. Denial of service attack
- B. Sniffing attack
- C. Spoofing attack
- D. Reconnaissance attack
- E. Port Scan attack

**Answer: C**

**Explanation:** 6. Summary

Ingress traffic filtering at the periphery of Internet connected networks will reduce the effectiveness of source address spoofing denial of service attacks. Network service providers and administrators have already begun implementing this type of filtering on periphery routers, and it is recommended that all service providers do so as soon as possible. In addition to aiding the

Internet community as a whole to defeat this attack method, it can also assist service providers in locating the source of the attack if service providers can categorically demonstrate that their network already has ingress filtering in place on customer links. Corporate network administrators should implement filtering to ensure their corporate networks are not the source of such problems. Indeed, filtering could be used within an organization to ensure users do not cause problems by improperly attaching systems to the wrong networks.

The filtering could also, in practice, block a disgruntled employee from anonymous attacks. It is the responsibility of all network administrators to ensure they do not become the unwitting source of an attack of this nature.

#### NEW QUESTION 917

What is the definition of "jitter"?

- A. The total end-to-end delay
- B. The time it takes for the bits to transit the physical media.
- C. The delay caused by placing the bits on the wire.
- D. The variations of delay.

**Answer: D**

#### NEW QUESTION 921

Using more than one label on a single packet is required in what context?

- A. MPLS TE
- B. When CEF switching and Label switching is done
- C. In all the above circumstances.
- D. MPLS VPN

**Answer: D**

#### NEW QUESTION 923

Typical ADSL broadband Internet access requires a username and password to be entered on end-user PC connected to the ADSL modem in order for the end user to gain access to the Internet. If a Cisco ADSL router is used instead of an ADSL modem, what functionality is required on the Cisco ADSL router so the end-user connected to the Cisco ADSL router can access the Internet without entering a username and password?

- A. Route Bridge Encapsulation (RBE)
- B. PPPoA
- C. Integrated Routing and Bridging (IRB)
- D. AAA
- E. PPPoE client

**Answer:** E

#### NEW QUESTION 924

Which three statements about the route target (RT) are true? (Choose three.)

- A. The RT is a BGP extended community.
- B. The RT is an 8-byte field that is prefixed to an IPv4 address to make it a unique VPNv4 address.
- C. When a VPN route that is learned from a CE router is injected into BGP, one or more RTs are associated with it
- D. The distribution of VPN routing information is controlled through the use of VPN RTs
- E. When a VPN route that is learned from a CE router is injected into BGP, there is always one RT that is associated with it.

**Answer:** ACD

#### NEW QUESTION 926

What is the port number of the IPsec Encapsulating Security Payload packet?

- A. UDP port 50
- B. IP protocol 51
- C. TCP port 51
- D. TCP port 50
- E. IP protocol 50
- F. UDP port51

**Answer:** E

**Explanation:** 6.2. Managed Security services traversing the core

AH operates directly on top of IP, using IP protocol number 51. ESP operates directly on top of IP, using IP protocol number 50.

#### NEW QUESTION 931

Which statement about VPLS is true?

- A. All CE devices emulate a bridge
- B. All provider devices emulate a bridge
- C. Hierarchical VPLS reduces signaling overhead
- D. Each PE device emulates a bridge
- E. Each CE device emulates a bridge

**Answer:** C

**Explanation:** A hierarchical model can be used to improve the scalability characteristics of VPLS. Hierarchical VPLS (HVPLS) reduces signaling overhead and packet replication requirements for the provider edge.

#### NEW QUESTION 933

Which of the following IOS features can prevent IP spoofing attacks?

- A. Unicast Reverse Path Forwarding (uRPF)
- B. MPLS traffic Engineering
- C. Cisco Express Forwarding
- D. PPP over Ethernet
- E. IS-IS routing

**Answer:** A

#### NEW QUESTION 936

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