

Vendor: Cisco

> Exam Code: 350-501

- Exam Name: Implementing and Operating Cisco Service Provider Network Core Technologies (SPCOR)
- ➤ New Updated Questions from <u>Braindump2go</u> (Updated in <u>August/2021</u>)

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QUESTION 238

What is a constraint of Cisco MPLS TE tunnel configurations?

- A. Tunnels cannot span multiple OSPF areas.
- B. With ISIS as an IGP. only older-style metrics are used.
- C. Tunnels cannot be configured over IP unnumbered links.
- D. QoS-aware tunneling is not supported.

Answer: C Explanation:

Restrictions for MPLS Traffic Engineering and Enhancements

- MPLS traffic engineering supports only a single IGP process/instance. Multiple IGP processes/instances are not supported and MPLS traffic engineering should not be configured in more than one IGP process/instance.
- MPLS traffic engineering does not support ATM MPLS-controlled subinterfaces.
- The MPLS traffic engineering feature does not support routing and signaling of LSPs over unnumbered IP links. Therefore, do not configure the feature over those links.

QUESTION 239

Refer to the exhibit. A network administrator is implementing IGMP to enable multicast feed transmission to the receiver.

Which configuration must the administrator deploy on GW1 to permit IGMP Joins only to the assigned (S, G) feed?

A. config t
access-list 100 permit igmp host 0.0.0.0 host 239.10.10.10
access-list 100 deny igmp any any
interface GigabitEthernet1
ip igmp access-group 100
ip igmp version 3
end



- B. config t
 access-list 100 permit igmp host 0.0.0.0 host 239.10.10.10
 access-list 100 permit igmp host 172.20.20.3 host 239.10.10.10
 access-list 100 deny igmp any any
 interface GigabitEthernet1
 ip igmp access-group 100
 ip igmp version 3
 end
- C. config t
 access-list 100 permit igmp host 0.0.0.0 host 239.10.10.10
 access-list 100 deny igmp any any
 interface GigabitEthernet1
 ip igmp access-group 100
 ip igmp version 2
 end
- D. config t
 access-list 100 permit igmp host 0.0.0.0 host 239.10.10.10
 access-list 100 permit igmp host 172.20.20.3 host 239.10.10.10
 access-list 100 deny igmp any any
 interface GigabitEthernet1
 ip igmp access-group 100
 ip igmp version 2
 end

Answer: B Explanation:

How IGMP Checks an Extended Access List

When an IGMP extended access list is referenced in the **ip igmp access-group** command on an interface, the (S, G) pairs in the **permit** and **deny** statements of the extended access list are matched against the (S, G) pair of the IGMP reports received on the interface. For example, if an IGMP report with (S1, S2...Sn, G) is received, first the group (0.0.0.0, G) is checked against the access list statements. The convention (0.0.0.0, G) means (*, G), which is a wildcard source with a multicast group number. If the group is denied, the entire IGMP report is denied. If the group is permitted, each individual (S, G) pair is checked against the access list. Denied sources are taken out of the IGMP report, thereby denying the sources access to the multicast traffic.

QUESTION 240

A network engineer Is implementing a QoS policy for outbound management traffic classification and marking on a CPE device with these requirements:

- Management protocols must be marked with DSCP AF class 2 w4h low drop probability.
- Monitoring protocols must be marked with DSCP AF class 1 with low drop probability.
- All remaining traffic must be marked with a DSCP value of 0.

Which configuration must the engineer implement to satisfy the requirements?

- A. policy-map cpe-mgmt-policy class management set ip dscp af21 class monitoring set ip dscp af11 class class-default set ip dscp af0 end
- B. policy-map cpe-mgmt-policy class management set ip dscp af23 class monitoring set ip dscp af13 class class-default set ip dscp af0



```
class management
set ip dscp af21
class monitoring
set ip dscp af11
class class-default
set ip dscp default
```

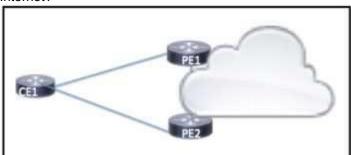
D. policy-map cpe-mgmt-policy class management set ip dscp af23 class monitoring set ip dscp af13 class class-default set ip dscp default end

Answer: C Explanation:

 $https://www.cisco.com/c/en/us/td/docs/switches/datacenter/nexus1000/sw/4_0/qos/configuration/guide/nexus1000v_qos/qos_6dscp_val.pdf$

QUESTION 241

Refer To the exhibit. Which BGP attribute should be manipulated to have CE1 use PE1 as the primary path to the Internet?



- A. The weight attribute should be manipulated on PE1 on outbound routes advertised to CE1.
- B. The MED should be manipulated on CE1 on inbound routes from PE1.
- C. The local preference attribute should be manipulated on PE2 on inbound routes advertised to CE1.
- D. The origin of all routes should be modified on each router on inbound and outbound routes advertised to CE1.

Answer: D

QUESTION 242

Refer to the exhibit. The network engineer who manages ASN 65010 is provisioning a customer VRF named CUSTOMER- ABC on PE-2. The PE-CE routing protocol is OSPF Internet reachability is available via the OSPF 0 0 0.0/0 route advertised by CE-1 to PE-1 In the customer VRF.

Which configuration must the network engineer Implement on PE-2 so that CE-2 has connectivity to the Internet?



```
OSFF 100
Arms 0

172.17.255.2

ASM 85010
MPLS Core

PE-1

OSFF 100
Arms 0

OSFF 100
Arms 0
```

```
A. vrf definition CUSTOMER-ABC
rd 65010:1
address-family ipv4
route-target both 65010:1
!
router ospf 100 vrf CUSTOMER-ABC
network 100.65.0.4 0.0.0.3 area 0
redistribute bgp 65010 subnets
default-information originate
!
router bgp 65010
address-family ipv4 unicast vrf CUSTOMER-ABC
redistribute ospf 100 match internal external
```

B. vrf definition CUSTOMER-ABC
rd 65010:2
address-family ipv4
route-target both 65010:100200
!
router ospf 100 vrf CUSTOMER-ABC
network 100.65.0.4 0.0.0.3 area 0
redistribute bgp 65010 subnets
!
router bgp 65010
address-family ipv4 unicast vrf CUSTOMER-ABC
redistribute ospf 100 match internal external

C vrf definition CUSTOMER-ABC
rd 65010:1
address-family ipv4
route-target both 65010:100200
!
router ospf 100 vrf CUSTOMER-ABC
network 100.65.0.4 0.0.0.3 area 0
redistribute bgp 65010 subnets
default-information originate
!
router bgp 65010
address-family ipv4 unicast vrf CUSTOMER-ABC
redistribute ospf 100 match internal external



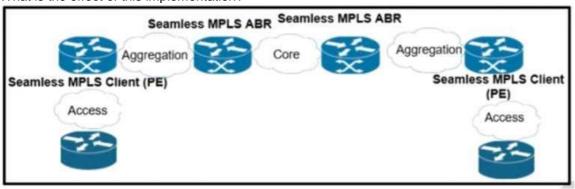
vrf definition CUSTOMER-ABC
rd 65010:2
address-family ipv4
route-target both 65010:1
!
router ospf 100 vrf CUSTOMER-ABC
network 100.65.0.4 0.0.0.3 area 0
redistribute bgp 65010 subnets
!
router bgp 65010
address-family ipv4 unicast vrf CUSTOMER-ABC
redistribute ospf 100 match internal external

Answer: C

QUESTION 243

Refer to the exhibit. A network operator working for a telecommunication company with an employee 3994:37:650 is implementing a cisco Unified MPLS solution.

What is the effect of this implementation?



- A. EIGRP is deployed between the PEs and ABRs with RFC 3107.
- B. OSPF is deployed between the PEs and ABRs with RFC 3107.
- C. IS-IS is deployed between the PEs and ABRs with RFC 3107.
- D. BGP is deployed between the PEs and ABRs with RFC 3107.

Answer: D Explanation:

Carry Label Information in BGP-4 (RFC 3107)

It is a prerequisite to have a scalable method in order to exchange prefixes between network segments. You could simply merge the IGPs (Open Shortest Path First (OSPF), Intermediate System-to-Intermediate System (IS-IS), or Enhanced Interior Gateway Routing Protocol (EIGRP)) into a single domain. However an IGP is not designed to carry 100,000s of prefixes. The protocol of choice for that purpose is BGP. It is a

QUESTION 244

A network engineer must implement SNMPv2 with these parameters ?Enable SNMP community string C1sc0 with read-only permissions.

- Enable interface index persistence.
- Restrict the SNMP community to only the monitoring server with IP address $198.18\ 19\ 100/32$.
- Provide view-only access to ospflfEntry and ospfNbrEntry.

Which configuration must the engineer apply?

A. configure terminal

access-list 5 permit 198.18.19.100 0.0.0.0 snmp-server view BLOCKED_VIEW internet excluded snmp-server view BLOCKED_VIEW ospflfEntry included snmp-server view BLOCKED_VIEW ospfNbrEntry included snmp-server community c1sc0 view BLOCKED_VIEW RO 5 snmp ifmib ifindex persist end



- B. configure terminal access-list 5 permit 198.18.19.100 0.0.0.0 snmp-server view BLOCKED_VIEW internet excluded snmp-server view BLOCKED_VIEW ospflfEntry included snmp-server view BLOCKED_VIEW ospfNbrEntry included
 - snmp-server community c1sc0 view BLOCKED_VIEW RW 5 snmp ifmib ifindex persist
 - end
- configure terminal
 - access-list 5 permit 198.18.19.100 0.0.0.0 snmp-server view BLOCKED_VIEW internet included snmp-server view BLOCKED_VIEW ospflfEntry included snmp-server view BLOCKED_VIEW ospfNbrEntry included snmp-server community c1sc0 view BLOCKED_VIEW RO snmp ifmib ifindex persist end
- D. configure terminal access-list 5 permit 198.18.19.100 0.0.0.0 snmp-server view BLOCKED_VIEW internet excluded snmp-server view BLOCKED_VIEW ospflfEntry included snmp-server view BLOCKED_VIEW ospfNbrEntry included snmp-server community c1sc0 view BLOCKED_VIEW RO snmp ifmib ifindex persist end

Answer: C

QUESTION 245

An engineer must extend Layer 2 Between two campus sites connected through an MPLS backbone that encapsulates Layer 2 and Layer 3 data.

Which action must the engineer perform on the routers to accomplish this task?

- A. Configure a EtherChannel for E-LAN.
- B. Configure a pseudowire for E-LINE.
- C. Configure Cisco MPLS TE for use with E-TREE.
- D. Configure QoS for MPLS and E-ACCESS

Answer: B

QUESTION 246

The engineering team at a large ISP has been alerted a customer network is experiencing high traffic congestion. After a discussion between the ISP and technical personnel at the customer site, the team agrees that traffic to the customer network that exceeds a specific threshold will be dropped. Which task must the engineer perform on the network to implement traffic policing changes?

- A. Configure RSVP to reserve bandwidth on all interfaces when a path is congested.
- B. Enable Cisco Discovery Protocol on the interface sending the packets.
- C. Enable Cisco Express Forwarding on the interfaces sending and receiving the packets.
- D. Set IP precedence values to take effect when traffic exceeds a given threshold.

Answer: D

QUESTION 247

An engineer is implementing IGMP with SSM on a multicampus network that supports video streaming. Which task must the engineer perform as part of the process?

- A. Configure the network to use IGMPv3.
- B. Configure the network to use bidirectional PIM.
- C. Configure an RP that uses static assignments only.

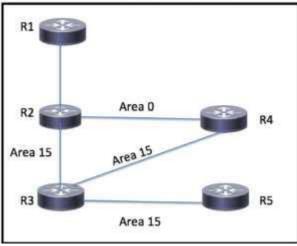


D. Configure the network to use the PIM bsr-candidate

Answer: A

QUESTION 248

Refer to the exhibit. An engineer has started to configure a router for OSPF, as shown Which configuration must an engineer apply on the network so that area 15 traffic from R5 to R1 will prefer the route through R4?



- A. Place the link between R3 and R5 in a stub area to force traffic to use the route through R4.
- B. Increase the cost on the link between R2 and R4, to influence the path over R3 and R4.
- C. Implement a multiarea adjacency on the link between R2 and R4, with the cost manipulated to make the path through R4 preferred.
- D. Implement a sham link on the between R3 and R2 to extend area 0 area 15.

Answer: B

QUESTION 249

Refer to the exhibit. An engineer has started to configure a router for secure remote access as shown. All users who require network access need to be authenticated by the SSH Protocol.

Which two actions must the engineer implement to complete the SSH configuration? (Choose two.)

line vty 0 4
access-class 100 in
transport input ssh
login local
line vty 5 15
access-class 100 in
transport input ssh
login local

- A. Configure an IP domain name.
- B. Configure service password encryption.
- C. Configure crypto keys
- D. Configure ACL 100 to permit access to port 22.
- E. Configure a password under the vty lines.

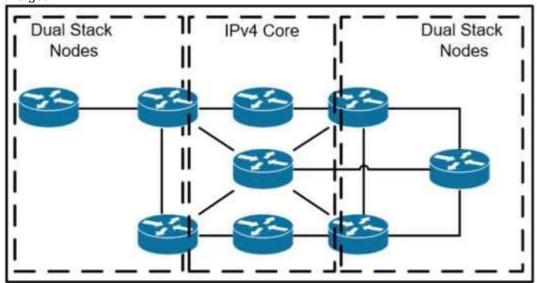
Answer: AC

QUESTION 250

Refer to the exhibit. A network operator has two IPv4 and IPv6 dual-stacked network on each side of the IPv4 core



network. The operator must be able to provide connectivity between them while using specific assigned IPv6 space provided from the company IP administrator team. Which technology should the network operator use to accomplish this goal?



- A. 6rd
- B. NAT46
- C. DS-Lite
- D. NAT44

Answer: B

QUESTION 251

Which additional configuration is required for NetFlow to provide traceback information?

- A. Cisco Express Forwarding must be configured for traffic that is egressing from the router to be properly reported.
- B. A classification ACL must be configured to identify which type of traffic will be analyzed.
- C. The BGP routing process must be started for any ingress or egress data to be reported when using NetFlow. Version 5.
- D. LLDP must be configured or the device will be unable to locate a NetFlow analyzer.

Answer: B Explanation:

Traffic Identification and Traceback

At times, you can need to quickly identify and traceback network traffic, especially during incident response or poor network performance. NetFlow and Classification ACLs are the two primary methods to accomplish this with Cisco IOS software. NetFlow can provide visibility into all traffic on the network. Additionally, NetFlow can be implemented with collectors that can provide long-term trending and automater analysis. Classification ACLs are a component of ACLs and require pre-planning-to identify specific traffic and manual intervention during analysis. These sections provide a brief overview of each feature.

QUESTION 252

What is a characteristic of prefix segment identifier?

- A. It contains a router to a neighbor
- B. It contains the interface address of the device per each link
- C. It is globally unique.
- D. It is locally unique.

Answer: C

QUESTION 253



An engineer working for a private service provider with employee id: 3994 37 650 is configuring a Cisco device to redistribute OSPF into BGP. Which task enables the device to filter routes?

- A. Configure a distribute list and associate it to the BGP peer interface
- B. Configure a prefix list and associate it to the BGP peer interface
- C. Configure a route map and reference it with the redistribute command
- D. Configure an access list and reference it with the redistribute command

Answer: C

QUESTION 254

A network engineer is configuring a newly installed PE router at the regional gateway location. The new PE router must use MPLS core routing protocols with the existing P router, and LDP sessions between the two routers must be protected to provide faster MPLS convergence. Which configuration must the engineer perform on the network so that LDP sessions are established?

- A. Enable communication over TCP port 646 for T-LDP hello messages.
- B. Enable RSVP-TE FRR on the LDP interface to protect the LDP session between routers.
- C. Enable LDP session protection on either one of the routers, which allows them to autonegotiate.
- D. Set the LDP session protection timer on each router to the same value.

Answer: C

QUESTION 255

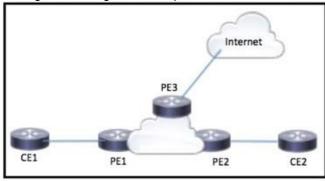
What do Chef and Puppet have in common?

- A. use Ruby
- B. use a master server
- C. require modules to be created from scratch
- D. manage agents referred to as minions

Answer: B

QUESTION 256

Refer to the exhibit. CE1 and CE2 require connectivity to the internet through the ISP connected to PE3. What should an engineer configure to complete this task?



- A. PE2 must be configured to serve as a route reflector for PE3 routes learned from the internet. PE2 then shares the routes with CE1 and CE2.
- B. CE1 and CE2 must be configured with a route distinguisher in the PE1 VRF that dynamically imports the route from the internet.
- C. CE1 and CE2 must be configured to use a static default route with a next-hop of PE3 to reach internet routes.
- D. PE1 must be configured with an import route target in the CE1 VRF that matches the export route



target for the internet VRF on PE3.

Answer: A

QUESTION 257

Refer to the exhibit. A Cisco engineer is implementing gRPC dial-out on an ASR. Receiver 192.168 1.1 will be assigned one of the subscriptions, and it will manage the ASR. Which command is needed to complete the router configuration?

telemetry model-driven destination-group ciscotest address family ipv4 192.168.1.1 port 1025 encoding self-describing-gpb

- A. protocol grpc
- B. protocol all
- C. protocol tcp
- D. protocol any

Answer: C Explanation:

- Transmission Control Protocol (TCP): used for only dial-out mode.
- User Datagram Protocol (UDP): used for only dial-out mode.

QUESTION 258

Refer to the exhibit. Which show command shows statistics for the control plane policy and is used to troubleshoot?

Control Plane Interface

Service policy CoPP-normal

Hardware Counters:

class-map: CoPP-normal (match-all)

Match: access-group 100

police:

6000 bps 1000 limit 1000 extended limit

Earl in slot 3:

0 bytes

5 minute offered rate 0 bps

aggregate-forwarded 0 bytes action: transmit

exceeded 0 bytes action: drop

aggregate-forward 0 bps exceed 0 bps

Earl in slot 5:

0 bytes

5 minute offered rate 0 bps

aggregate-forwarded 0 bytes action: transmit

exceeded 0 bytes action: drop

aggregate-forward 0 bps exceed 0 bps

- A. show control-plane CoPP
- B. show control-plane
- C. show policy-map control-plane
- D. show policy control-plane



Answer: C Explanation:

```
Control Plane

Service-policy input:TEST

Class-map:TEST (match-all)
20 packets, 11280 bytes
5 minute offered rate 0 bps, drop rate 0 bps
Match:access-group 101
police:
8000 bps, 1500 limit, 1500 extended limit
conformed 15 packets, 6210 bytes; action:transmit
exceeded 5 packets, 5070 bytes; action:drop
violated 0 packets, 0 bytes; action:drop
conformed 0 bps, exceed 0 bps, violate 0 bps
```

QUESTION 259

A network engineer is configuring RIP as the routing protocol between multiple PEs and CEs. The engineer must avoid advertising the same routes back to their sources. Which action should be performed on the routers to accomplish this task?

- A. Configure a different route distinguisher for each prefix.
- B. Define the site of origin on each interface.
- C. Define VRFs on each device to separate the traffic.
- D. Enable bidirectional forwarding detection on each device.

Answer: A

QUESTION 260

The network-engineering team of a service provider is integrating several recently acquired networks into a more scalable common Unified MPLS architecture. The new network architecture will support end-to-end VPNv4 and VPNv6 services with these requirements:

- The IGP of the core layer is IS-IS In Area 0.
- The IGP of the aggregation layers is OSPF in Area 0.
- The LDP protocol Is used to distribute label bindings within each IGP domain.

Which task must the network engineer perform when implementing this new architecture?

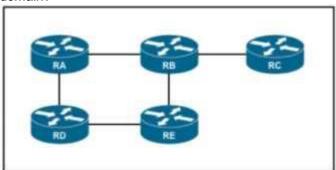
- A. Configure BGP-LU between ABR routers of each IGP domain to carry MPLS label information in NLRI.
- B. Configure a BGP session between the ABR routers of each IGP domain to exchange VPNv4 or VPNv6 prefixes
- C. Configure the ABR in each IGP domain to preserve next-hop information on all VPNv4 and VPNv6 prefixes advertised by the PE.
- D. Configure mutual redistribution of each IGP domain's loopback prefix to provide end-to-end LDP LSP

Answer: D

QUESTION 261



Refer to the exhibit. If RC is a stub router, which entry must be injected so that it will send traffic outside the OSPF domain?



- A. virtual link between RB and RC
- B. sham link
- C. more specific route
- D. default route

Answer: C