Cisco 350-501 Exam Preparation Materials

Vendor: Cisco

Exam Code: 350-501

Exam Name: Implementing and Operating Cisco Service Provider Network Core Technologies (SPCOR)

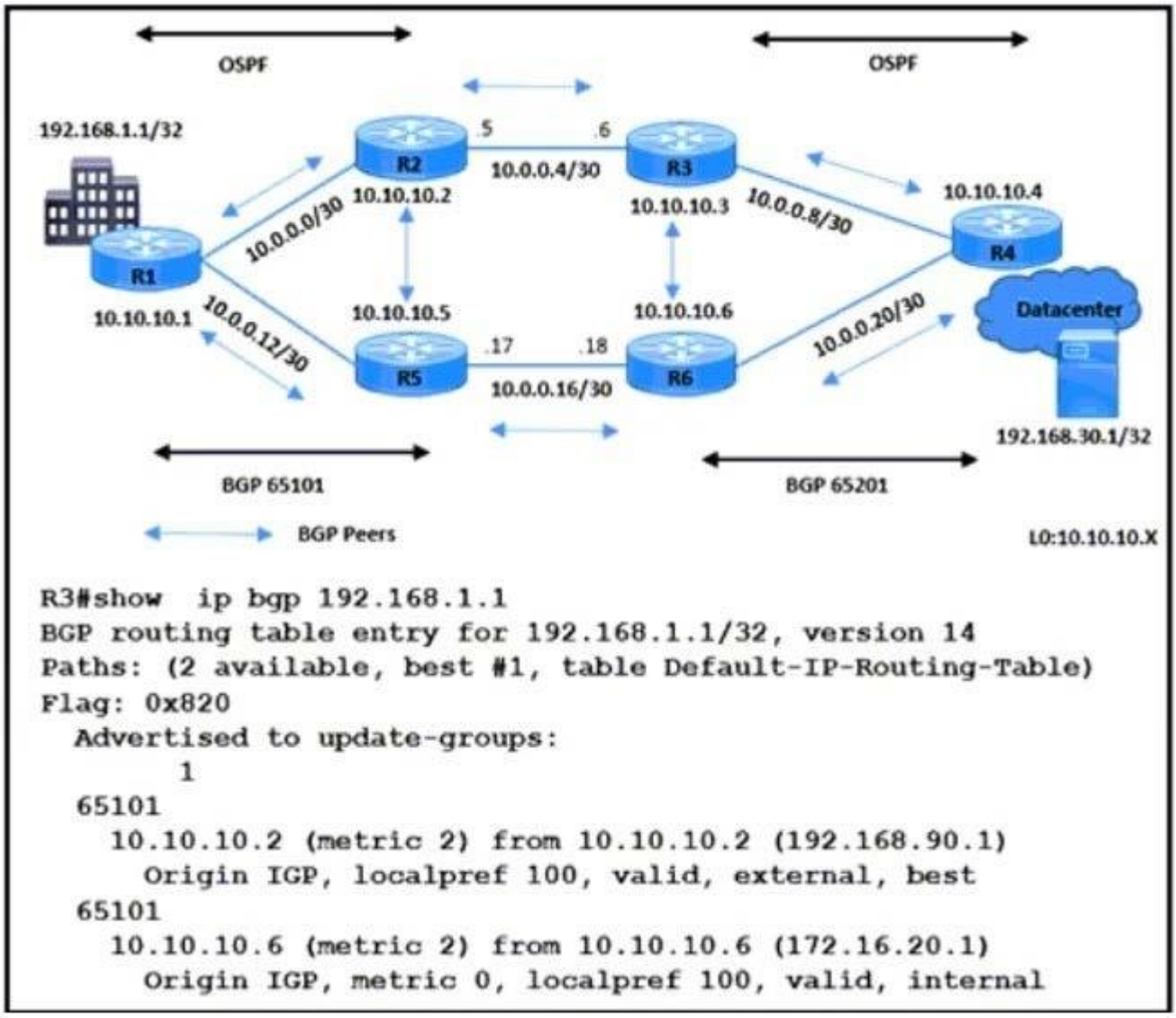
Certification: CCIE Service Provider

Total Questions: 568 Q&A (View Details)

Updated on: Jul 02, 2026

https://www.leads4pass.com/350-501.html

Question 1:




```
R3#show  ip bgp 192.168.1.1
BGP routing table entry for 192.168.1.1/32, version 14
Paths: (2 available, best #1, table Default-IP-Routing-Table)
Flag: 0x820
  Advertised to update-groups:
        1
  65101
    10.10.10.2 (metric 2) from 10.10.10.2 (192.168.90.1)
      Origin IGP, localpref 100, valid, external, best
  65101
    10.10.10.6 (metric 2) from 10.10.10.6 (172.16.20.1)
      Origin IGP, metric 0, localpref 100, valid, internal
```

Refer to the exhibit. All BGP peering in AS 65101 and 65201 is enabled. The operations team is told that traffic destined to 192.168.1.1/32 from R4 does not use the path R3-R2-R1

as expected. An engineer debugs the issue and determines that 192.168.1.1/32 is advertised in the BGP routing table on R1. Which action resolves the issue?

A. Enable no synchronization on R2 m AS65101.

B. Apply route-map High-LP out for prefix 192.168.1.1/32 on R1 with R2 BGP peering.

C. Apply redistribute ospf 10 on R1 in BGP AS 65101.

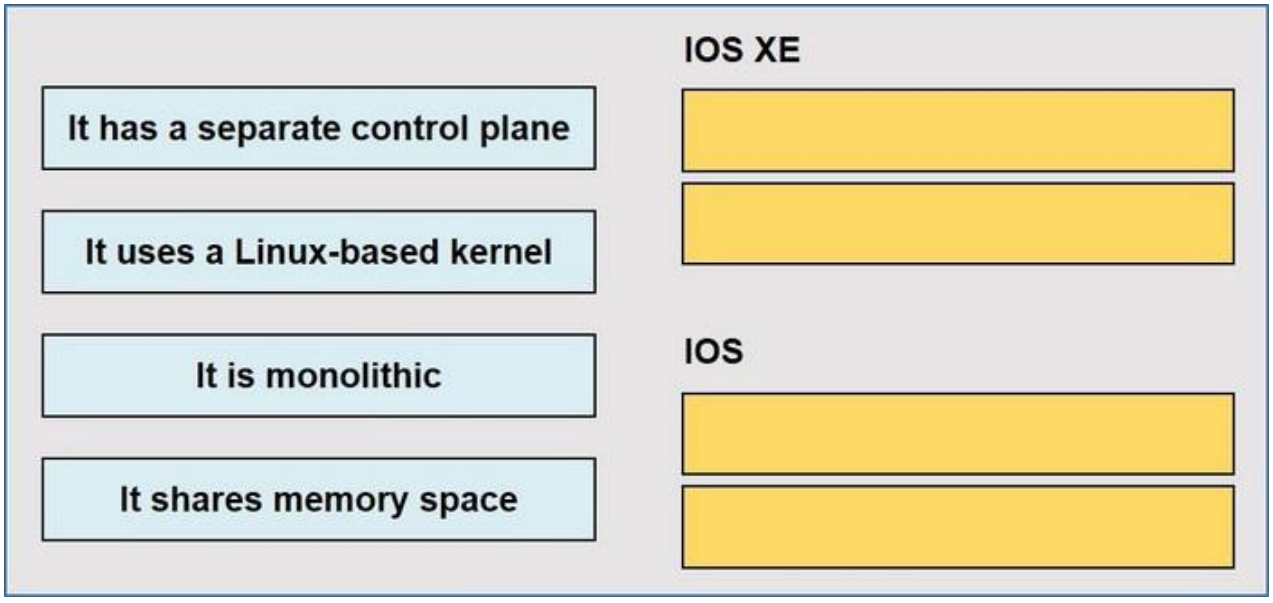
D. Configure network 192.168.1.1 mask 255.255.255.255 in BGP AS 65101 on R2

Correct Answer: A

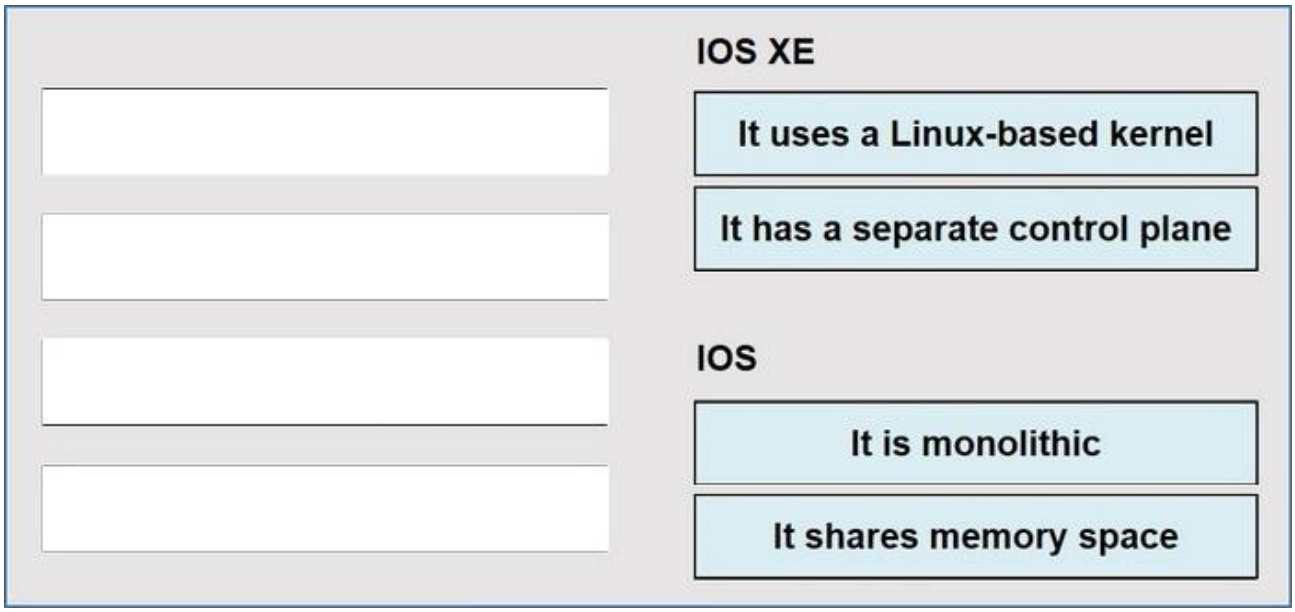
Question 2:
DRAG DROP

Drag and drop the descriptions from the left onto the corresponding OS types on the right.

Select and Place:



Correct Answer:



IOS XE: It uses linux-based kernel It has a separate control plane IOS: It is monolithic It shares memory space

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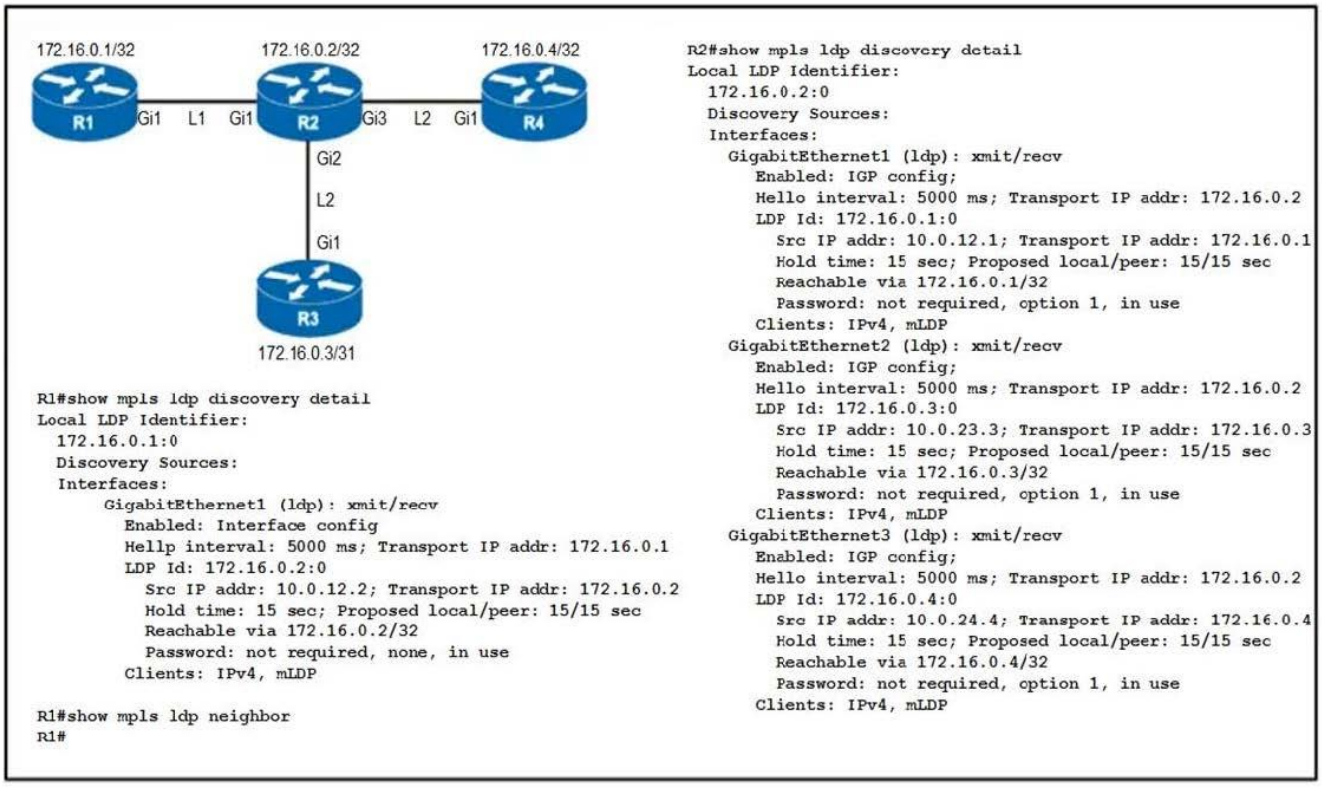
Question 3:

Refer to the exhibit.



An engineer began to configure LDP between R1 and R2, but R1 and R2 cannot yet establish an LDP TCP connection. Which additional task must be completed to finish the implementation?

A. Configure the mpls ldp neighbor 172.16.0.1 password command on R1

B. Configure the mpls ldp neighbor 10.0.12.1 password command on R1

C. Configure the no mpls ldp password option 1 command on R2

D. Configure the no mpls ldp password option 1 command on R1

Correct Answer: C

Question 4:
Which QoS model allows hosts to report their OoS needs to the network?

A. DiffServ

B. CB-WFQ

C. IntServ

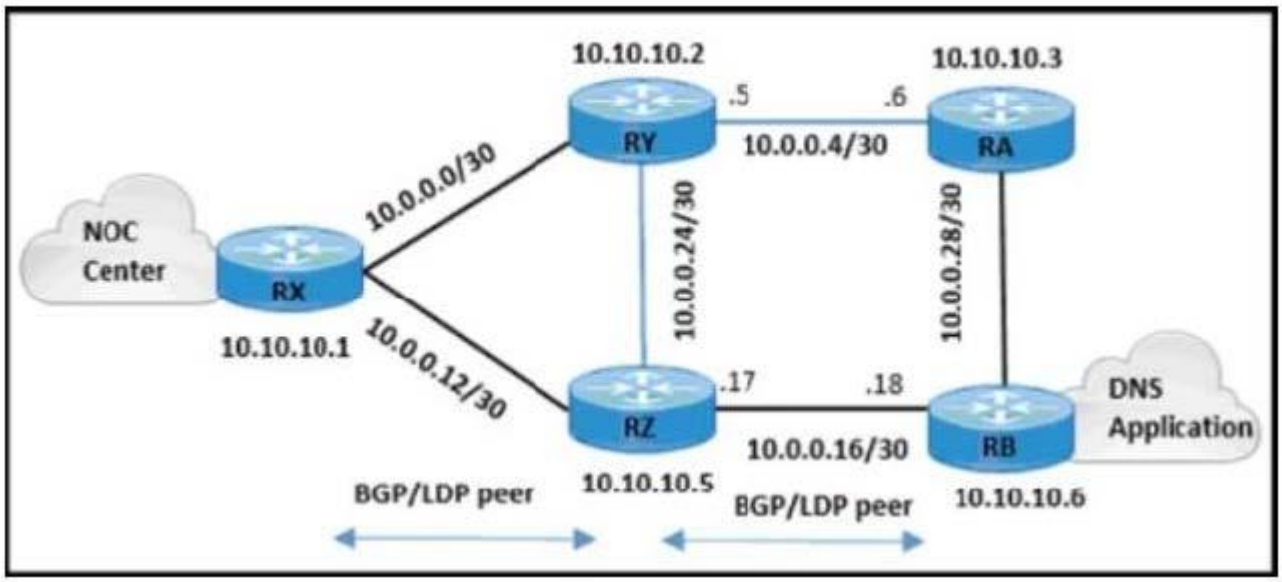
D. MQC

Correct Answer: B

To facilitate true end-to-end QoS on an IP-network, the Internet Engineering Task Force (IETF) has defined two models: Integrated Services (IntServ) and Differentiated Services (DiffServ). IntServ follows the signaled-QoS model, where the end-hosts signal their QoS needs to the network, while DiffServ works on the provisioned-QoS model, where network elements are set up to service

Question 5:
Refer to the exhibit.

```
RX#
class-map match-all Routing
match access-group 150
class-map match-all Management
match access-group 151
!
policy-map RTR_CoPP
class Routing
police 1000000 50000 50000 conform-action transmit exceed-action transmit
class Management
police 100000 20000 20000 conform-action transmit exceed-action drop
!
access-list 150 permit tcp any gt 1024 10.0.0.0 0.0.0.255 eq bgp
access-list 150 permit tcp any eq bgp 10.0.0.0 0.0.0.255 gt 1024 established
access-list 151 permit tcp 192.168.10.0 0.0.0.255 10.0.1.0 0.0.0.255 eq telnet
access-list 151 permit tcp 192.168.10.0 0.0.0.255 eq telnet 10.0.1.0 0.0.0.255 established
access-list 151 permit tcp 192.168.10.0 0.0.0.255 10.0.1.0 0.0.0.255 eq 22
access-list 151 permit tcp 192.168.10.0 0.0.0.255 eq 22 10.0.1.0 0.0.0.255 established
access-list 151 permit udp 192.168.10.0 0.0.0.255 10.0.1.0 0.0.0.255 eq snmp
access-list 151 permit tcp 192.168.10.0 0.0.0.255 10.0.1.0 0.0.0.255 eq www
access-list 151 permit udp 192.168.10.0 0.0.0.255 10.0.1.0 0.0.0.255 eq 443
access-list 151 permit tcp 192.168.10.0 0.0.0.255 10.0.1.0 0.0.0.255 eq ftp
access-list 151 permit tcp 192.168.10.0 0.0.0.255 10.0.1.0 0.0.0.255 eq ftp-data
access-list 151 permit udp 192.168.10.0 0.0.0.255 10.0.1.0 0.0.0.255 eq syslog
access-list 151 permit udp 172.16.10.0 0.0.0.255 eq domain 10.0.1.0 0.0.0.255
```



The engineering team wants to limit control traffic on router RX with the following IP address assignments:

Accepted traffic for router: 10.0.0.0/24 NOC users IP allocation: 192.168.10.0/24

Which additional configuration must be applied to RX to apply the policy for MSDP?

A. RX(config)#access-list 151 permit tcp any gt 1024 10.10.0.0 0.0.0.255 eq 639
RX(config)#access-list 151 permit tcp any eq 639 10.10.0.0 0.0.0.255 gt 1024 established

B. RX(config)#access-list 150 permit tcp any gt 1024 10.0.0.0 0.0.0.255 eq 639
RX(config)#access-list 150 permit tcp any eq 639 10.0.0.0 0.0.0.255 gt 1024 established

C. RX(config)#access-list 151 permit tcp any 10.0.0.0 0.0.0.255 eq 639
RX(config)#access-list 151 permit udp any 10.0.0.0 0.0.0.255 eq 639

D. RX(config)#access-list 150 permit tcp any 10.0.0.0 0.0.0.255 eq 639
RX(config)#access-list 150 permit udp any 10.0.0.0 0.0.0.255 eq 639

Correct Answer: B

Question 6:
How does Cisco DNA Center enhance network automation?

A. It allows network administrators to quickly deploy Cisco Layer 2 devices without requiring STP and broadcast transport.

B. It allows network administrators to reduce inconsistencies when they deploy and validate network configurations.

C. It allows network administrators to reduce the number of VRFs in a multi customer environment by automatically implementing a single VLAN per customer.

D. It allows network administrators to combine voice and data networks into a single topology without manual configuration.

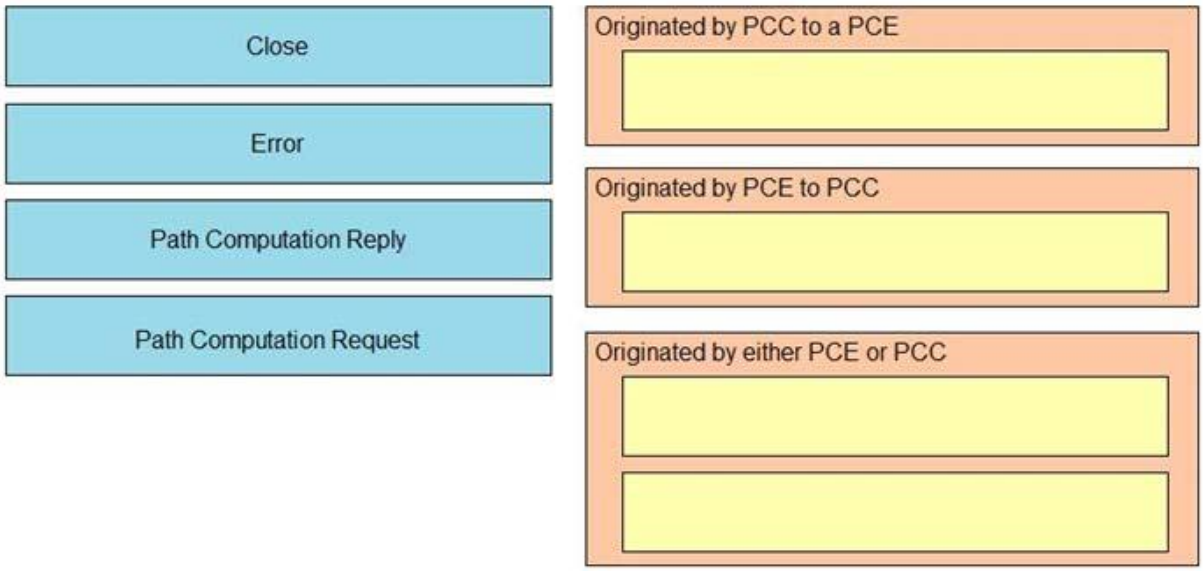
Correct Answer: B

Question 7:
DRAG DROP

Drag and drop the message types from the left onto the target field of the message originator on the right.

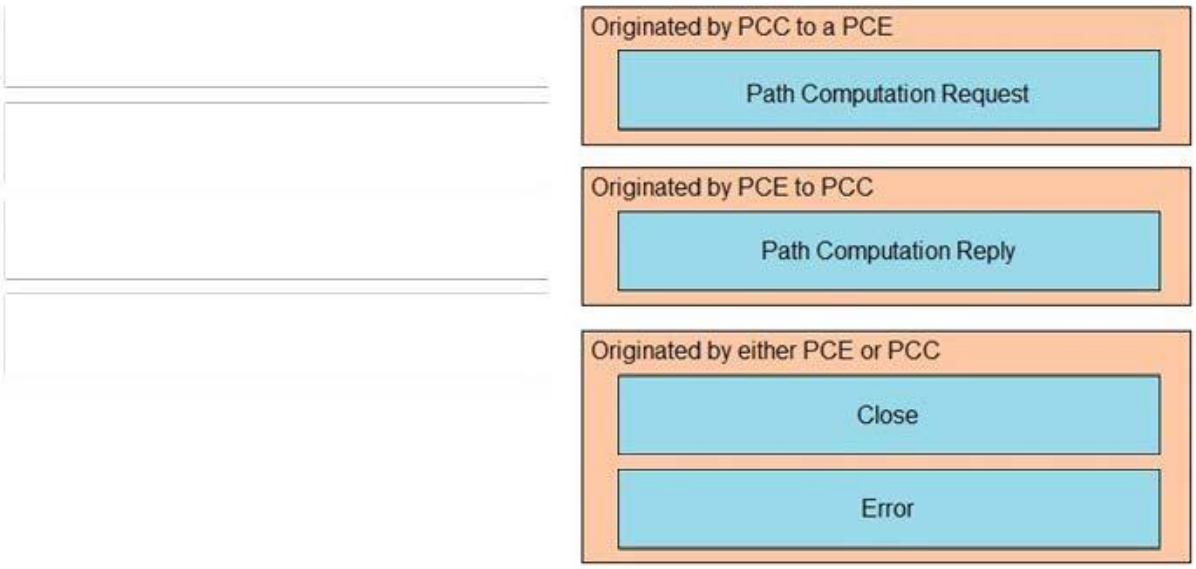
Select and Place:

Answer Area



Correct Answer:

Answer Area



Question 8:

Exhibit: A network engineer must update the routing toward the web server with IP address 35.22.13.1. The primary path must be configured via the neighbor router with ID 1.1.1.1. However, local-preference configuration is not permitted on R1. Which task must the engineer perform on R1 to complete the implementation?

```
R1#show ip bgp 35.33.13.0
BGP routing table entry for 35.33.13.0/24, version 24
Paths: (3 available, best #3, table Default-IP-Routing-Table)
...
10
  172.31.1.99 from 172.31.1.99 (1.1.1.1)
   Origin IGP, metric 100, localpref 200, valid, internal
10
  172.26.11.100 from 172.26.11.100 (3.3.3.3)
   Origin IGP, metric 120, localpref 200, valid, external
18293
  172.21.71.1 from 172.21.71.1 (2.2.2.2)
   Origin IGP, metric 150, localpref 200, valid, external, best
```

A. Configure the device to choose the best MED from the same AS.

B. Set the device to ignore the conditional MED if the route originated in a different autonomous system.

C. Enable MED comparison between routes from neighbors in different AS.

D. Implement deterministic MED to choose the best route from the different AS.

Correct Answer: B

Question 9:
What does DWDM use to combine multiple optical signals?

A. frequency

B. IP protocols

C. time slots

D. wavelength

Correct Answer: D

Question 10:
Refer to the exhibit.

```
R2#sh cins neighbors detail
Tag TEST:
System Id    Interface     SNPA           State  Holdtime    Type  Protocol
R1           Fa0/0         ca01.2178.0008 Up     89          L1L2  IS-IS
 Area Address(es): 49
 Uptime: 00:03:29
 NSF capable
 Interface name: FastEthernet0/0
```

On R1, which output does the show isis neighbors command generate?

A.
```
Tag TEST:
System Id    Type Interface   IP Address    State Holdtime Circuit Id
R2           L1   Fa0/0       UP    7       R2.01
R2           L2   Fa0/0       UP    9       R2.01
```

B.
```
Tag TEST:
System Id    Type Interface   IP Address    State Holdtime Circuit Id
R2           L2   Fa0/0       UP    7       R2.01
R2           L2   Fa0/0       UP    9       R2.01
```

C.
```
Tag TEST:
System Id    Type Interface   IP Address    State Holdtime Circuit Id
R2           L2   Fa0/0       UP    9       R2.01
```

D.
```
Tag TEST:
System Id    Type Interface   IP Address    State Holdtime Circuit Id
R2           L1   Fa0/0       UP    7       R2.01
```

A. Option A

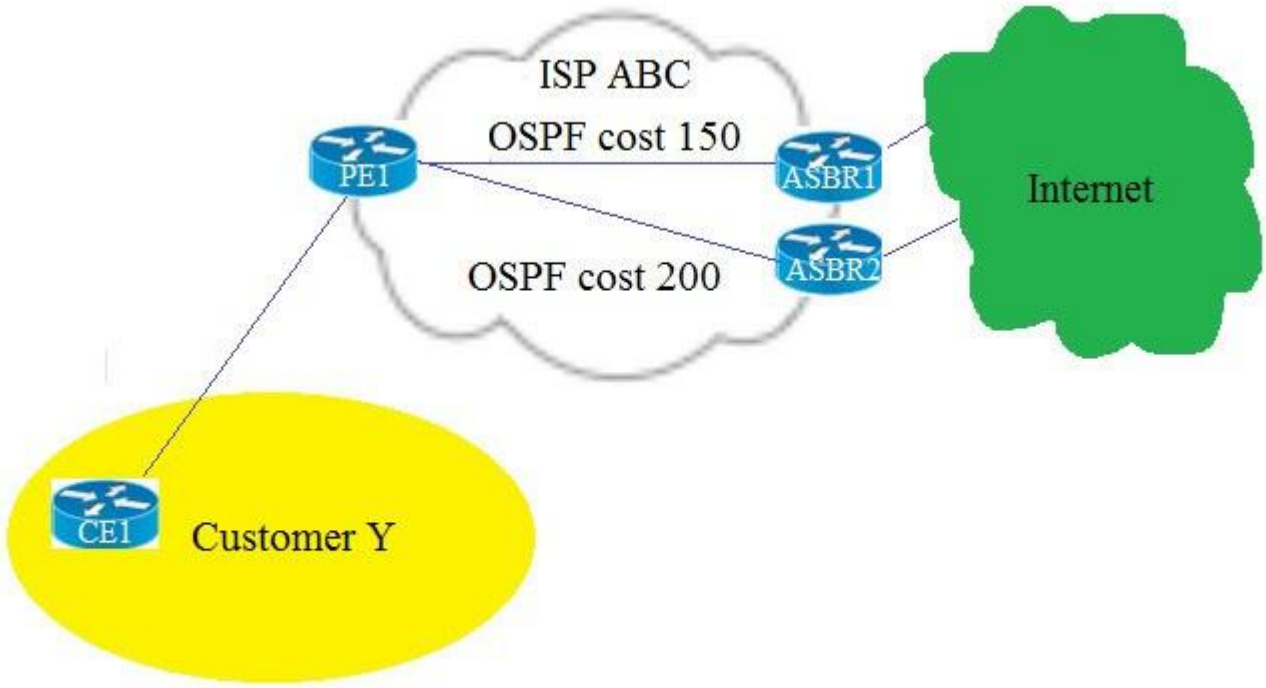
B. Option B

C. Option C

D. Option D

Correct Answer: A

Question 11:
Refer to the exhibit.



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

A. Graceful restart

B. set-overload-bit on startup wait-for-bgp

C. bfd min_rx 100 max_rx 100 multiplier 3

D. max-metric router-lsa on startup 300

Correct Answer: D

Question 12:
A network architect dides to expand the scope of the multicast deployment within the company network the network is already using PIM-SM with a static RP that supports a high-bandwidth. video-based training application that s heavily used by the employees, but excessive bandwidth usage is a concern.

How must the engineer update the network to provide a more efficient multicast implementation\'?

A. Configure IGMP to manage the multicast hosts on each LAN

B. implement BSR to support dynamic RP notification.

C. Deploy ICMP to Improve multicast reachability across the network using static RP.

D. Implement STP to improve switching performance for multicast data.

Correct Answer: B

Question 13:
When Cisco lOS XE REST API uses HTTP request methods what is the purpose of a PUT request?

A. retrieves the specified resource or representation

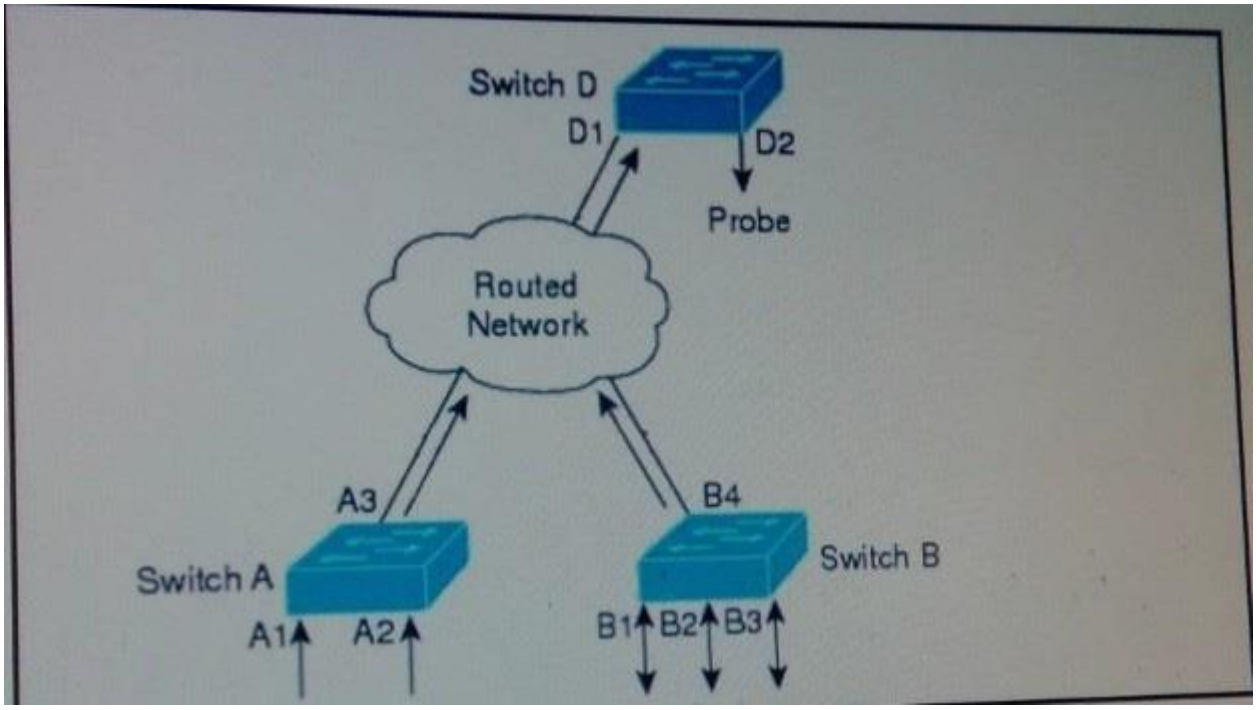
B. submits data to be processed to the specified resource

C. updates the specified resource with new information

D. creates a new resource

Correct Answer: C

Question 14:



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

A. NetFlow v5

B. ERSPAN

C. NetFlow v9

D. RSPAN

Correct Answer: B

Question 15:
The administrator of a small company network notices that intermittent network issues occasionally cause inbound notifications to its SNMP servers to be lost.

Which configuration must the administrator apply so that the SNMP servers acknowledge the notifications that they receive?

A. snmp-server community ciscotest rw 10

B. snmp-server host tests.cisco.com public snmp-server community ciscotest rw 10

C. snmp-server enable traps bgp snmp-server host 192.169.2.1 Informs

D. snmp-server enable traps snmp

Correct Answer: C

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