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

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: Feb 28, 2026

Question 1:
Refer to the exhibit.

```
router bgp 65515
    bgp router-id 192.168.1.1
    no bgp default ipv4-unicast
    bgp log-neighbor-changes
    neighbor 192.168.1.2 remote-as 65515
    neighbor 192.168.2.2 remote-as 65515
```

A network engineer is configuring a new router for iBGP to improve the capacity of a growing network. The router must establish an iBGP peer relationship with its neighbor. The underlay network is already configured with the correct IP addresses. Which step should the engineer apply to complete this task?

A. Implement multicast routing on the router to support BGP hellos.

B. Configure the AS number for the router to share with its iBGP peers.

C. Configure the new router as an iBGP route reflector to support multiple iBGP peers.

D. Activate the BGP peers under the correct address family on the router.

Correct Answer: C

Question 2:
Which OS uses a distributed subsystem architecture?

A. IOS XE

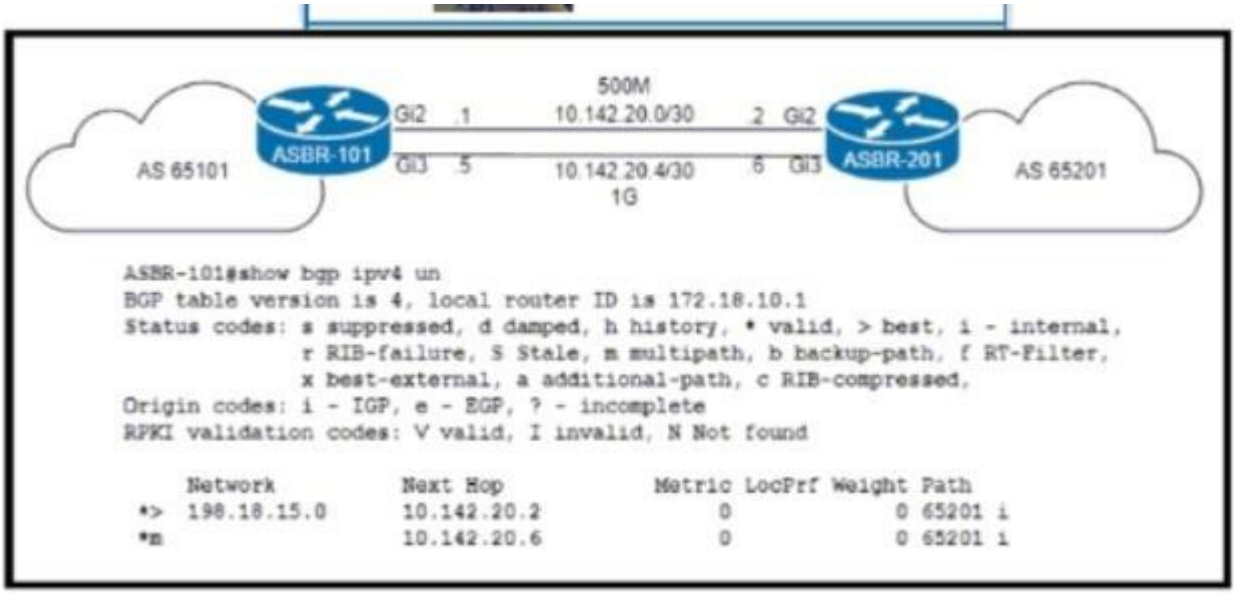
B. IOS

C. IOS XR

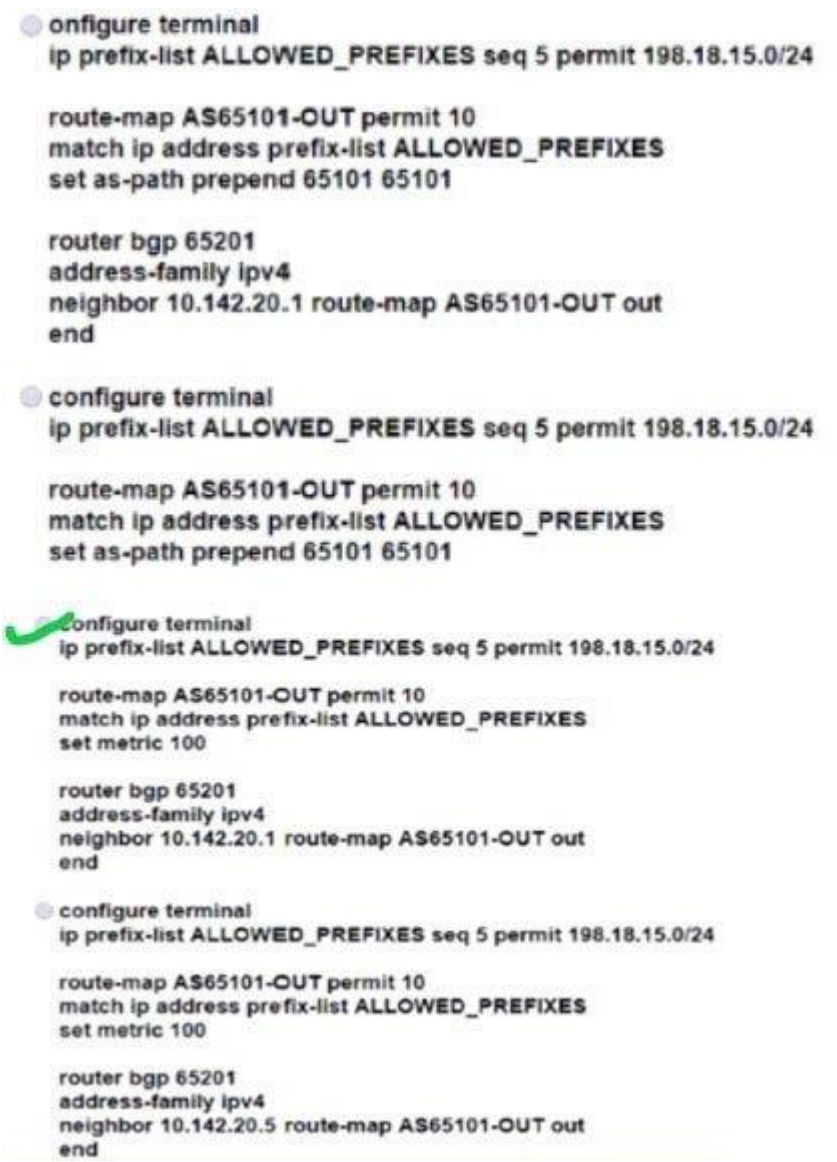
D. CatOS

Correct Answer: C

Question 3:
Refer to the exhibit an engineer working for a private telecommunication company with an employee Id: 4065:96:080 upgrades the WAN link between routers ASBR-101 and ASBR-201 to 1Gb by Installing a new physical connection between the Gi3 Interfaces.



Which BGP attribute must the engineer configure on ASBR-201 so that the existing WAN link on Gi2 Is maintained as a backup?



A. Option A

B. Option B

C. Option C

D. Option D

Correct Answer: C

Question 4:

A network operator working for a telecommunication company with an employee Id: 4065 96080 it trying to implement BFD configuration on an existing network of Cisco devices. Which task must the engineer perform to enable BFD on the interfaces?

A. Disable Cisco Express Forwarding on the interfaces

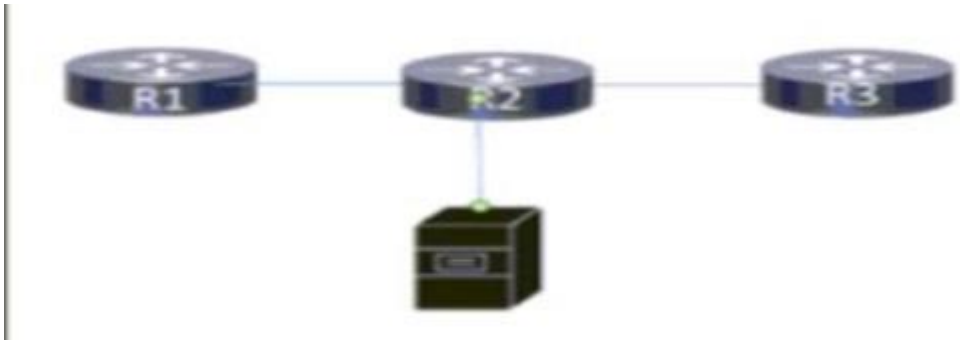
B. Disable SSO on the interfaces

C. Remove any static routes that point to the interfaces

D. Remove the log option from any ACLs on the interfaces.

Correct Answer: D

Question 5:
Refer the exhibit.



Users on a network connected to router R3 report slow speeds when they connect to the server connected to R2. After analyzing traffic on the network, a network engineer identified congestion on the link between R2 and R3 as the cause. Which QoS service must the engineer implement to drop traffic on the link when it exceeds a configured threshold?

A. first-in, first-out

B. traffic shaping

C. class-based weighted fair queueing

D. traffic policing

Correct Answer: D

https://www.cisco.com/c/en/us/support/docs/quality-of-service-qos/qos-policing/19645-policevsshape.html

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Question 6:
Which action occurs during the traceback phase of the six-phase approach to service provider security?

A. Trace the attack that flows from the attacked sections of the network toward the network edges

B. Detect unusual activity or behavior and activate appropriate measures after an alert is raised

C. Review the whole attack-handling process

D. Mitigate the attack that flows using various mechanisms

Correct Answer: A

Explanation: Traceback Phase Assuming you have identified the attack vector in the preceding phase, you now need to identify the ingress points in order to mitigate the attack efficiently. The traceback phase entails tracing the attack flows from the attacked sections of the network toward the network edges. You can take a hop-by-hop approach tracking the sources upstream from the victim toward network edges, or you can directly jump on the network ingress points to check them for the presence of attack flows. You can track flows through the network in various ways: through ACLs (with or without the log-input clause), by deploying NetFlow, or by using backscatter mechanisms.

Reference:
https://sec.cloudapps.cisco.com/security/center/resources/service_provider_infrastructure_security.html

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Question 7:
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 an RP that uses static assignments only.

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

C. Configure the network to use bidirectional PIM.

D. Configure the network to use IGMPv3.

Correct Answer: D

Question 8:
How can shared services in an MPLS Layer 3 VPN provide Internet access to the Customers of a central service provider?

A. Static routes on CE routers allow route leakage from a PE global routing table.

B. The CE router can establish a BGP peering to a PE router and use the PE device to reach the Internet.

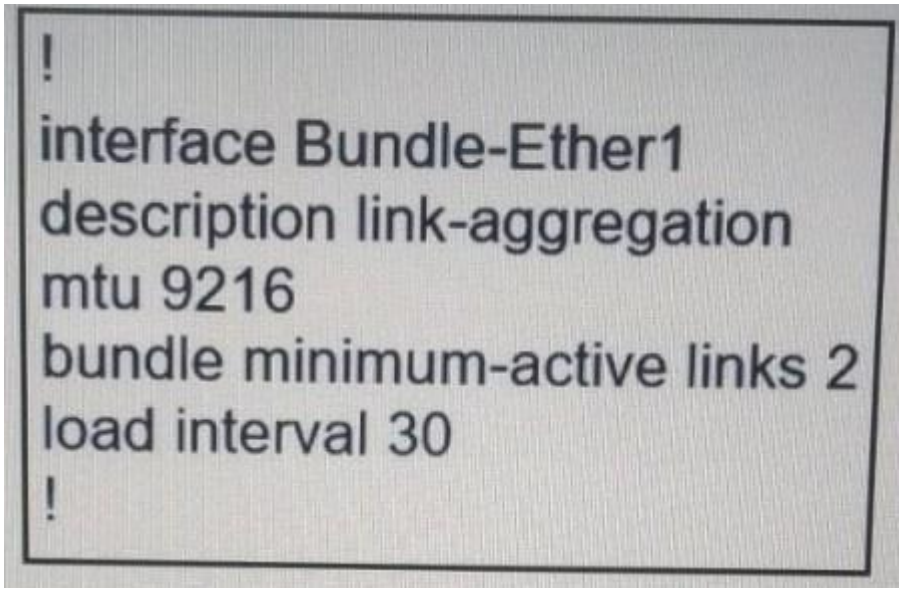
C. The customer VRF uses route targets to import and export routes to and from a shared services VRF.

D. Route distinguishers are used to identify the routes that CEs can use to reach the Internet.

Correct Answer: C

Reference:
https://community.cisco.com/t5/service-providers-documents/providing-internet-access-for-mpls-l3-vpns/ta-p/3109924

Question 9:
Refer to the exhibit.



Which the link aggregation configuration router is running on Cisco IOS XR software, which LACP interface configuration is needed to add the interface to the bundle?

A.
```
interface TenGigE0/1/0/5
 description bundle_ 1_ link
 bundle id 1
 load interval 30

 interface T enGigE0/1/0/6
 description bundle 1 link
 bundle id 1
 load interval 30
```

B.
```
interface TenGigE0/1/0/5
 description bundle_ 1_ link
 id 1 mode active
 load interval 30

 interface T enGigE0/1/0/6
 description bundle 1 link
 id 1 mode active
 load interval 30
```

C.
```
interface TenGigE0/1/0/5
 description bundle_ 1_ link
 bundle id 1 mode active
 load interval 30

 interface T enGigE0/1/0/6
 description bundle 1 link
 bundle id 1 mode active
 load interval 30
```

D.
```
interface TenGigE0/1/0/5
 description bundle_ 1_ link
 bundle mode active
 load interval 30

 interface T enGigE0/1/0/6
 description bundle 1 link
 bundle mode active
 load interval 30
```

A. Option A

B. Option B

C. Option C

D. Option D

Correct Answer: C

Question 10:
You are configuring MPLS traffic-engineering tunnels in the core. Which two ways exist for the tunnel path across the core? (Choose two)

A. Tunnel links inherit IGP metrics by default unless overridden

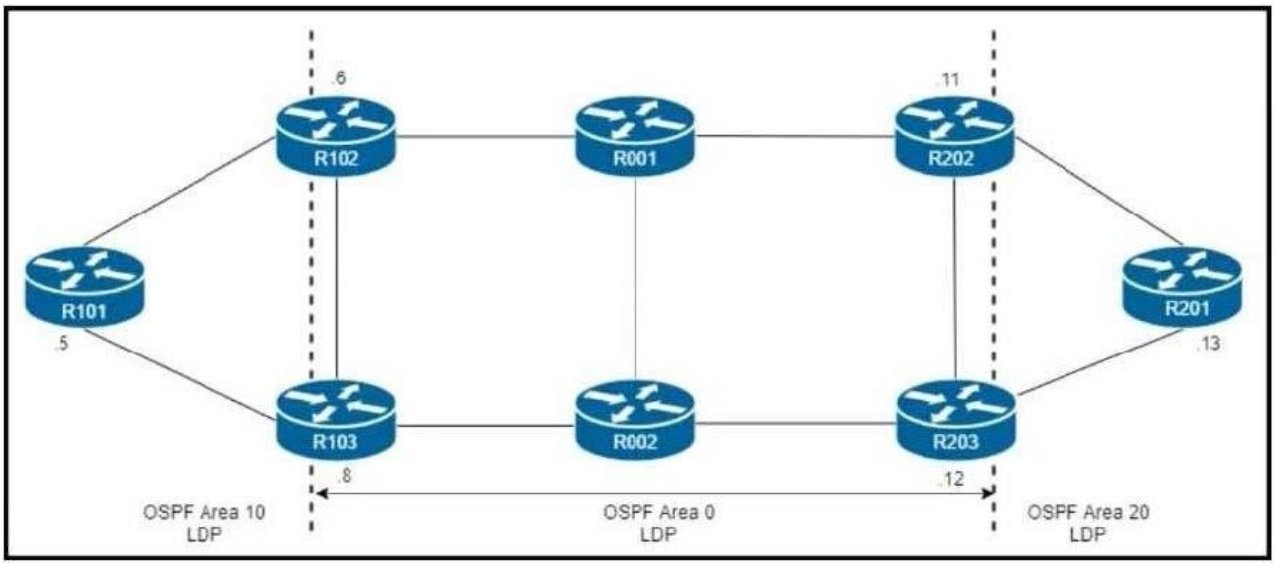
B. Tunnels can be configured with dynamic path or explicitly defined path

C. A zero bandwidth tunnel is not a valid option

D. The bandwidth statement creates a "hard" reservation on the link-The dynamic path option is supported only with IS-IS

Correct Answer: AB

Question 11:
Refer to the exhibit.



R101 is peering with R102 and R103, and R201 is peering with R202 and R203 using iBGP Labeled Unicast address families. The OSPF area 0 border routers are in a full iBGP Labeled Unicast mesh, and VPNv4 routes are exchanged directly between PE routers R101 and R201 through iBGP

Which address family-level configuration must be applied on ABR R102 on ABR R102 to support a Unified MPLS routing architecture with partitioned IGP domains?

A.
```
router bgp 65512
address-family ipv4
neighbor 172.16.0.5 route-reflector-client
neighbor 172.16.0.5 send-label
neighbor 172.16.0.11 route-reflector-client
neighbor 172.16.0.11 send-label
neighbor 172.16.0.12 route-reflector-client
```

B.
```
router bgp 65512
address-family ipv4
neighbor 172.16.0.5 route-reflector-client
neighbor 172.16.0.5 next-hop-self all
neighbor 172.16.0.5 send-label
neighbor 172.16.0.11 next-hop-self all
neighbor 172.16.0.11 send-label
neighbor 172.16.0.12 next-hop-self all
neighbor 172.16.0.12 send-label
```

C.
```
router bgp 65512
address-family ipv4
neighbor 172.16.0.5 route-reflector-client
neighbor 172.16.0.5 next-hop-self all
neighbor 172.16.0.11 next-hop-self all
neighbor 172.16.0.12 next-hop-self all
```

D.
```
router bgp 65512
address-family ipv4
neighbor 172.16.0.5 route-reflector-client
neighbor 172.16.0.5 next-hop-self
neighbor 172.16.0.5 send-label
neighbor 172.16.0.11 next-hop-self
neighbor 172.16.0.11 send-label
neighbor 172.16.0.12 next-hop-self
neighbor 172.16.0.12 send-label
```

A. Option A

B. Option B

C. Option C

D. Option D

Correct Answer: B

Question 12:
Refer to the exhibit.

R1(config)# router isis area1R1(config-router)# net 49.0001.0000.0000.000b.00

R1(config-router)# interface loopback 0R1(config-if)# ipv6 address 2001:0000:1001:1000::1/128R1(config-if)# exit

R1(config)# interface Ethernet 1/2R1(config-if)# ipv6 address 2001:0000:1001:100A::1/64R1(config-if)# ipv6 router isis area1R1(config-if)# exit

A network engineer with an employee id: 3812:12:993 has started to configure router R1 for IS-IS as shown. Which additional configuration must be applied to configure the IS-IS instance to advertise only network prefixes associated to passive interfaces?

A. R1(config)# router isis area1 R1(config-router)# passive-interface loopback 0 R1(config-router)# address-family ipv6 R1(config-router-af)# advertise passive-only

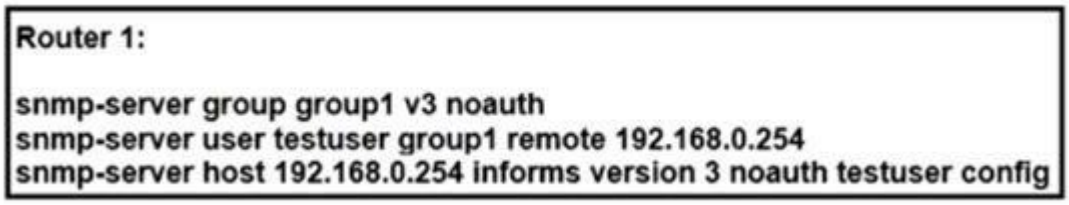
B. R1(config-router)# address-family ipv6 R1(config-router-af)# advertise passive-only

C. R1(config)# router isis area1 R1(config-router)# loopback 0 passive-interface R1(config-router)# address-family ipv6 R1(config-router-af)# prc-interval 20

D. R1(config)# router isis area 1 R1(config-router)# passive-interface loopback 0

Correct Answer: A

Question 13:
Refer to the exhibit.



A network engineer is deploying SNMP configuration on client\'s routers. Encrypted authentication must be included on router 1 to provide security and protect message confidentially. Which action should the engineer perform on the routers to accomplish this task?

A. snmp-server host 192.168.0.254 informs version 3 auth testuser config.

B. snmp-server user testuser group 1 remote 192.168.0.254 v3 auth md5 testpassword

C. snmp-server group group 1 v3 auth.

D. snmp-server community public

Correct Answer: B

Question 14:
Refer to the exhibit.

What does this value mean when it is received in XML?

A. It indicates a value assigned by a network administrator to tag a route.

B. It indicates a break in a sequence.

C. It means a data field is blank.

D. It shows the ending of the script.

Correct Answer: C

Question 15:
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

Correct Answer: A