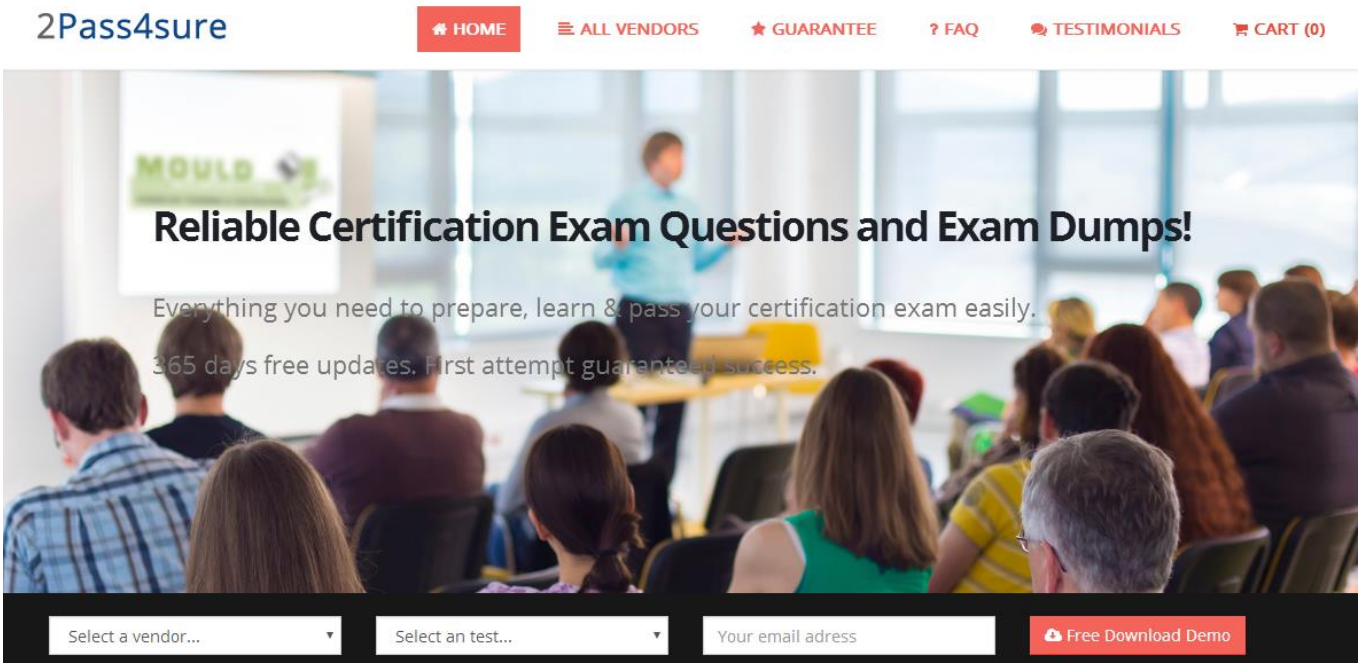
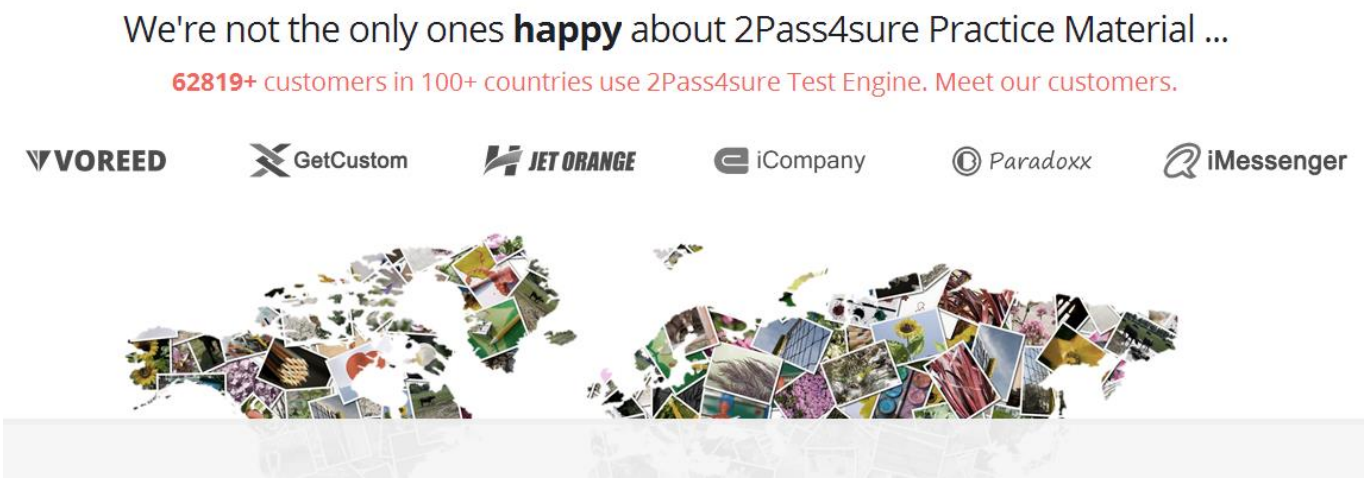
2Pass4sure





http://www.2pass4sure.com/

Reliable Certification Exam Questions and Exam Dumps - 2Pass4sure

Exam : **300-510**

Title : Implementing Cisco Service Provider Advanced Routing Solutions

Vendor : Cisco

Version : DEMO

NO.1 For which reason can two devices fail to establish an OSPF neighbor relationship?
A. The two devices have different process IDs
B. The two devices have different network types
C. The two devices have different router IDs
D. The two devices have the same area ID
Answer: B
Explanation:
https://www.cisco.com/c/en/us/support/docs/ip/open-shortest-path-first-ospf/13699-29.html

NO.2 Refer to the exhibit. Which LSA type is indicated by this router output?

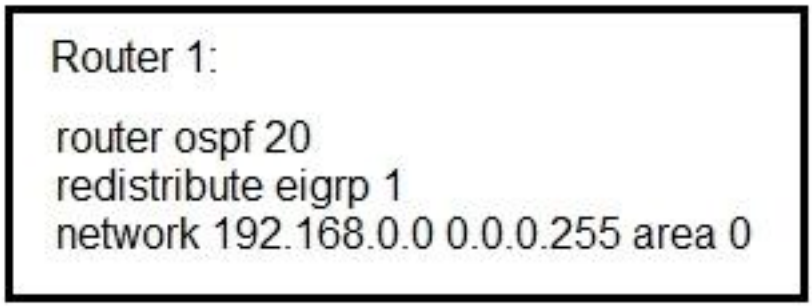
```
OSPF Router with ID (192.168.1.1) (Process ID 1)
Router Link States (Area 1234)
LS age: 691
Options: (No TOS-capability, DC)
LS Type: Router Links
Link State ID: 192.168.1.1
```

A. type 3 LSA
B. type 4 LSA
C. type 1 LSA
D. type 2 LSA
Answer: C

NO.3 After you change the IP address on an IOS XR router, you cannot ping the new address. Which step did you forget to complete?
A. commit the configuration
B. roll back the configuration
C. merge the configuration
D. save the running configuration
Answer: A

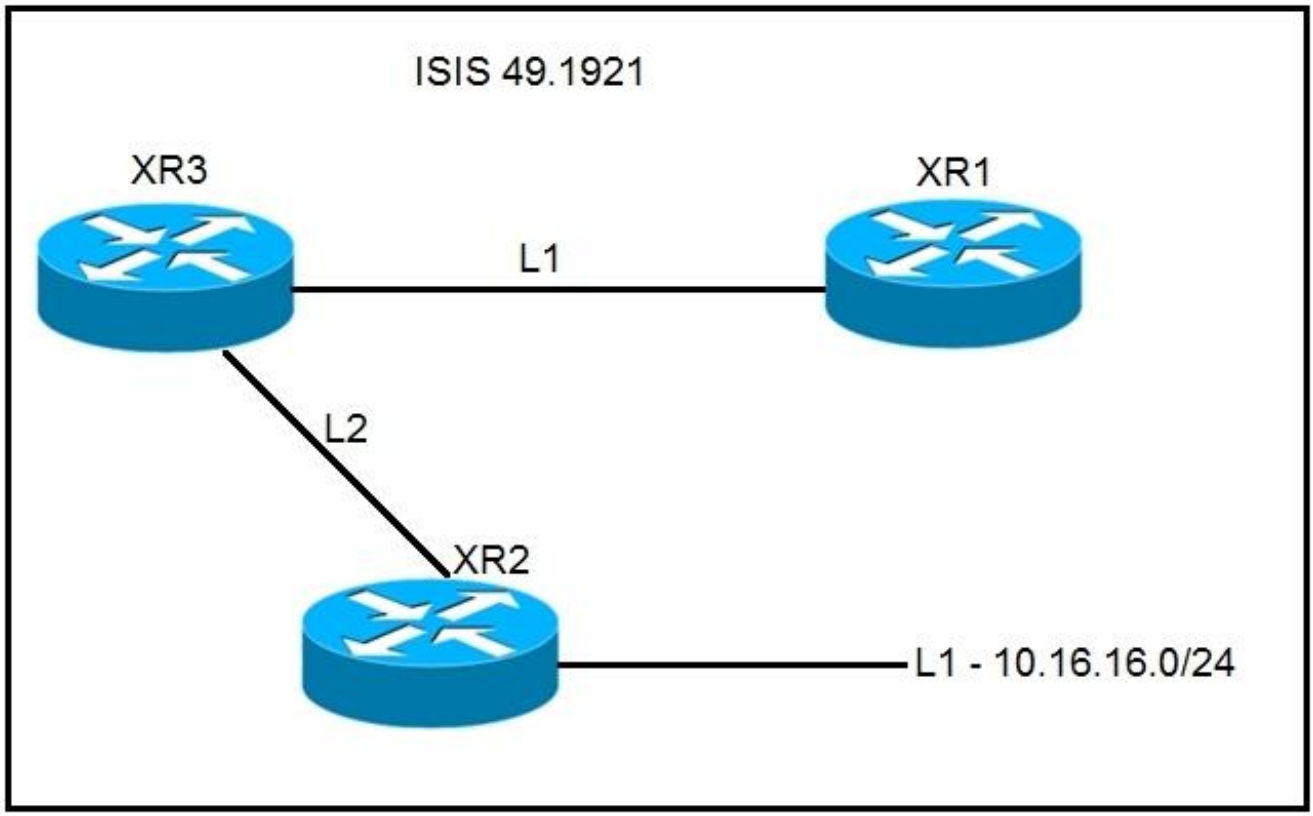
NO.4 Which cost is the default when redistributing routes from BGP to OSPF?
A. 20
B. 1
C. infinite
D. automatic
Answer: B
Explanation:
http://www.ciscopress.com/articles/article.asp?p=27573

NO.5 Refer to the exhibit. An engineer is troubleshooting an OSPF issue.
Router 1 has a neighbor relationship with router 2.
Only router 1 classful EIGRP routes can be seen on router 2.
In order for all EIGRP routes to be redistributed correctly, which action should be taken?



A. Router 1 must have the keyword subnets included in the redistribution command for all EIGRP routes to be redistributed.
B. Router 1 must remove the AS number 1 from the redistribution command for all EIGRP routes to be redistributed.
C. Router 1 must have the keyword ospf-metric included in the redistribution command for all EIGRP routes to be redistributed.
D. Router 1 must have the keyword metric-type 1 included in the redistribution command for all EIGRP routes to be redistributed.
Answer: A

NO.6 Refer to the exhibit. A network operator must inject a Level 1 route from XR2 (10.16.16.0/24) into the ISIS topology.
Which configuration allows the injection in a way that XR3 and XR1 have a valid and working route for 10.16.16.0/24?



A.

```
#XR3
route-policy ISIS_PROPO
 if destination in(10.0.0.0/8 ge 8 le 22) then
  pass
 endif
end-policy
!
router isis 1
 net 49.1921.6800.0003.00
 address-family ipv4 unicast
!
propagate level 1 into level 2 route-policy ISIS_PROPO
```

B.

```
#XR2
route-policy ISIS_PROPO
 if destination in(10.0.0.0/8 ge 8 le 32) then
  pass
 endif
end-policy
!
router isis 1
 net 49.1921.6800.0003.00
 address-family ipv4 unicast
!
propagate level 2 into level 1 route-policy ISIS_PROPO
```

C.

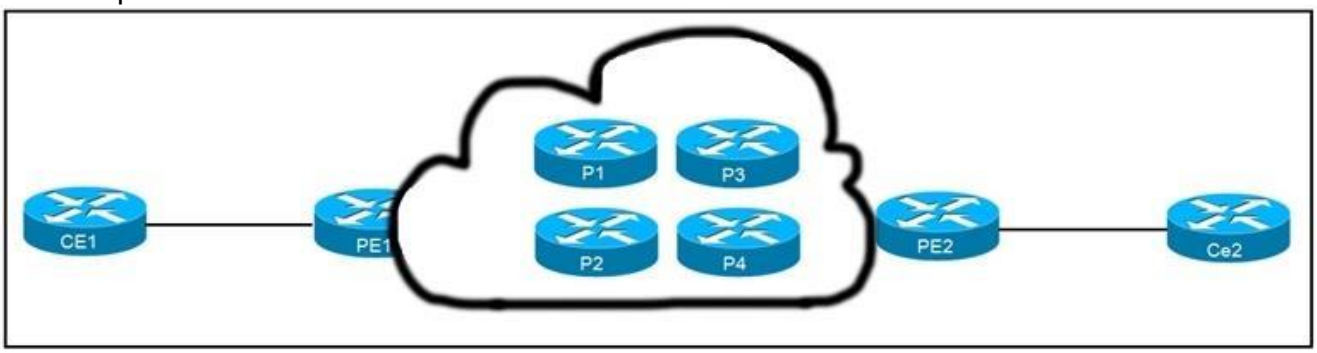
```
#XR2
route-policy ISIS_PROPO
 if destination in(10.0.0.0/8 ge 8 le 32) then
  pass
 endif
end-policy
!
router isis 1
 net 49.1921.6800.0003.00
 address-family ipv4 unicast
!
propagate level 1 into level 2 route-policy ISIS_PROPO
```

D.

```
#XR3
route-policy ISIS_PROPO
 if destination in(10.0.0.0/8 ge 8 le 32) then
  pass
 endif
end-policy
!
router isis 1
 net 49.1921.6800.0003.00
 address-family ipv4 unicast
!
propagate level 2 into level 1 route-policy ISIS_PROPO
```

Answer: D
Explanation:
L1 route injected by XR2 won't be advertised to XR1, since L2 routes are NOT leaked to L1 by default.
An [L2-L1] route leak policy should be configured on L1/L2 router (XR3).

NO.7 Refer to the exhibit. CE1 and CE2 cannot communicate through the service provider BGP peering is established between PE1 and PE2.
IS-IS is the only routing protocol running in the service provider core.
What step can be done to troubleshoot the issue?



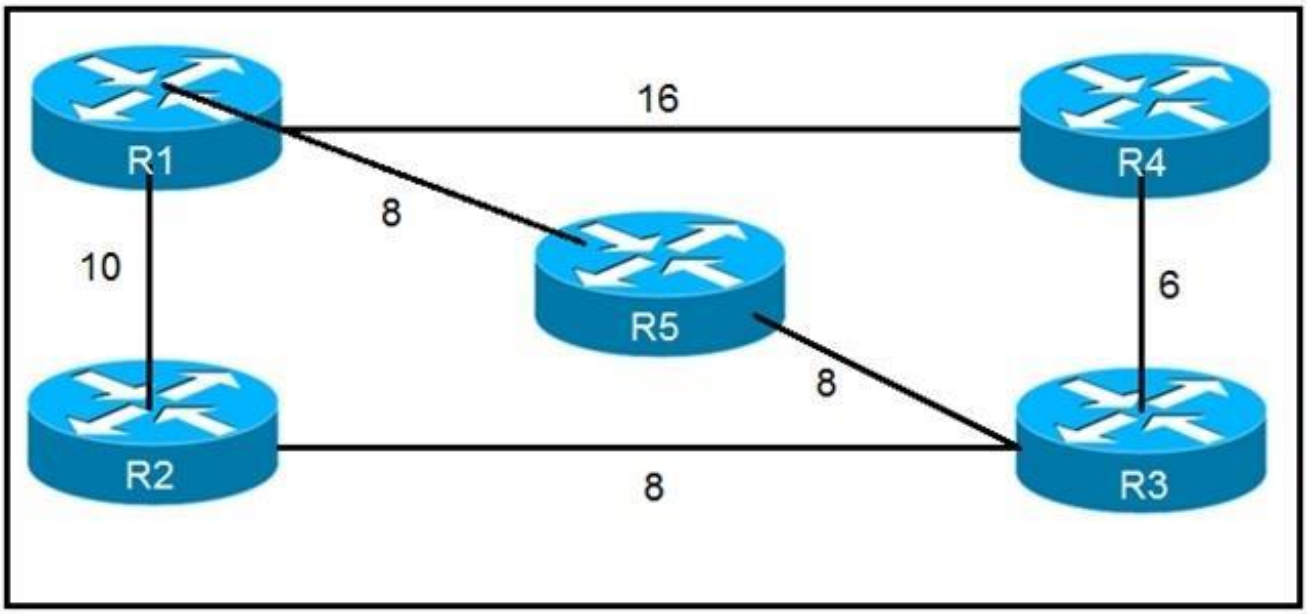
A. Switch the IGPs running in the core from IS-IS to OSPF to support a Cisco MPLS TE tunnel from PE1 to PE2.
B. Configure BGP between CE and PE routers.
C. Confirm that IS-IS is running with metric-style narrow.
D. Verify the MPLS LSPs.
Answer: D
Explanation:
CE1 won't be able to talk to CE2 in case underlying MPLS LSP is failed.

NO.8 Refer to the exhibit. Router 1 has attempted to establish a Cisco MPLS TE tunnel to router 2, but the tunnel has failed.
Which statement about this configuration is true?

Router 1:	Router 2:
mpls traffic-eng tunnels	mpls traffic-eng tunnels
router ospf 2 mpls traffic-eng router-id loopback 0 mpls traffic-eng area 0	router ospf 2 mpls traffic-eng router-id loopback 0 mpls traffic-eng area 0
interface gigabitethernet0/1 ip rsvp bandwith	interface gigabitethernet0/1 mpls traffic-eng tunnels ip rsvp bandwith
interface tunnel 1 ip unnumbered loopback 0 tunnel destination 192.168.4.1 tunnel mode mpls traffic-eng tunnel mpls traffic-eng bandwidth 150 tunnel mpls traffic-eng autoroute announce	

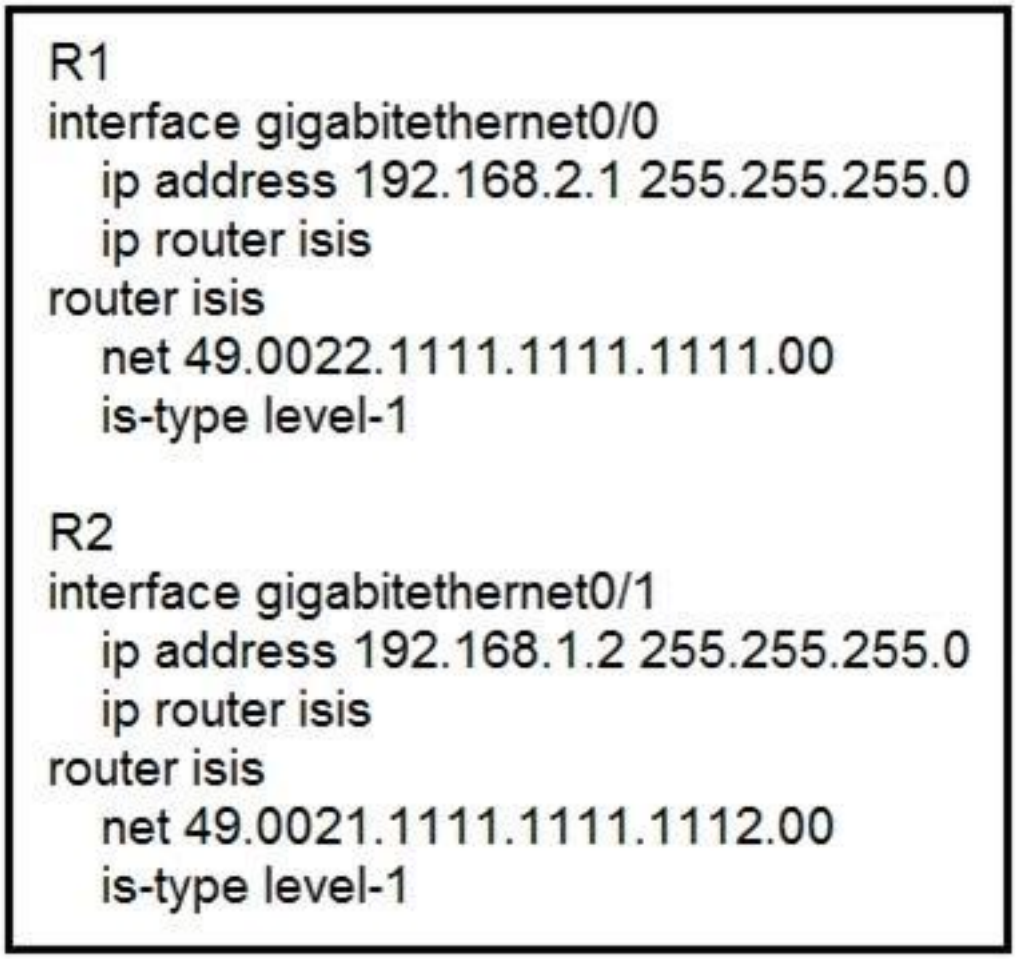
A. Router 1 must define an explicit path to router 2
B. Router 1 and router 2 must define the RSVP bandwidth reserved on the physical interfaces
C. Router 2 must have a tunnel interface created with router 1 as the destination
D. Router 1 must have Cisco MPLS TE enabled on interface gigabitethernet0/1
Answer: D

NO.9 Refer to the exhibit. Which router does R1 install as an alternate next hop when trying to reach R3 if LFA is enabled?



A. R5
B. R3
C. R4
D. R2
Answer: D

NO.10 Refer to the exhibit. Routers R1 and R2 cannot form a neighbor relationship, but the network is otherwise configured correctly and operating normally.
Which two statements describe the problem? (Choose two.)



A. The two routers are in the same area
B. The two routers are in different subnets
C. The two routers have password mismatch issues
D. The two routers have the same network ID
E. The two routers are in different areas
Answer: BE

NO.11 Refer to the exhibit. P1 and PE3 Cisco IOS XR routers are directly connected and have this configuration applied.
The BGP session is not coming up. Assume that there is no IP reachability problem and both routers can open tcp port 179 to each other.
Which two actions fix the issue? (Choose two.)

```
RP/0/0/CPU/0:P1#
!
key chain BGP
key 1
accept-lifetime 13:14:06 february 14 1993 infinitive
send-lifetime 13:14:06 february 14 1993 infinitive
key-string password cisco123
cryptographic-algorithm MD5
!
!
router bgp 1
address-family ipv4 unicast
!
neighbor 192.168.13.3
   remote-as 1
   keychain BGP
   address-family ipv4 unicast


RP/0/0/CPU/0:PE3#
!
key chain BGP
key 1
accept-lifetime 13:14:06 february 14 1993 infinitive
send-lifetime 13:14:06 february 14 1993 infinitive
key-string password cisco123
cryptographic-algorithm MD5
!
!
router bgp 1
address-family ipv4 unicast
!
neighbor 192.168.13.1
   remote-as 1
   keychain BGP
   address-family ipv4 unicast
```

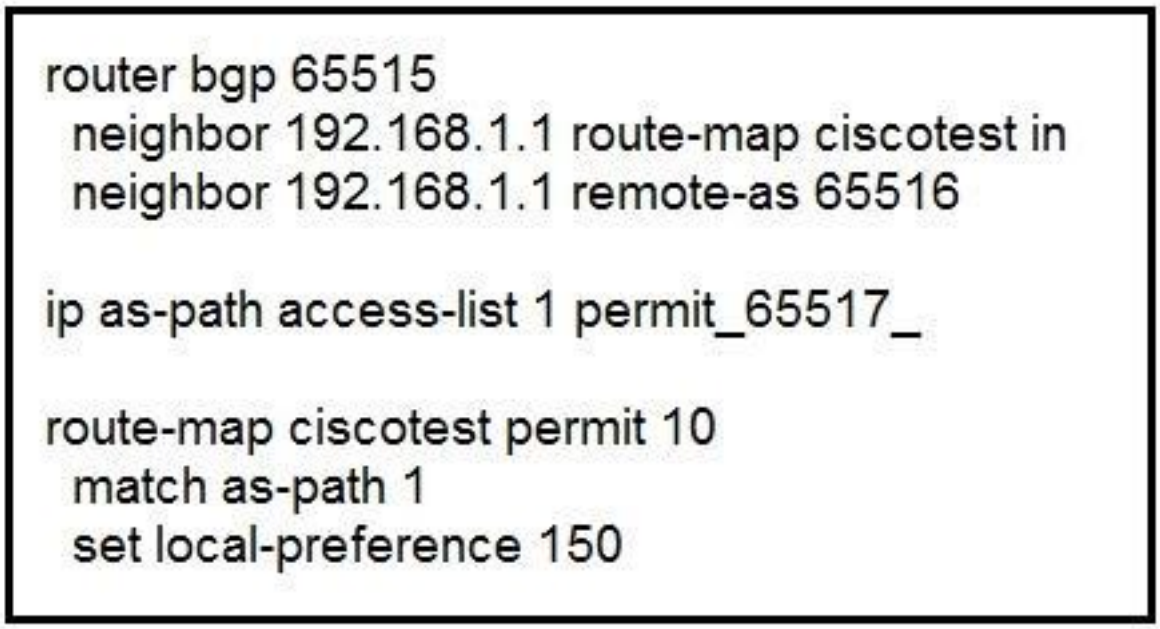
A. Change MD5 to HMAC-SHA1-12
B. Change MD5 to HMAC-ESP
C. Change MD5 to SHA-1
D. Change MD5 to HMAC-MD5
E. Remove the send and accept lifetime under key 1
Answer: AD
Explanation:
https://www.cisco.com/c/en/us/td/docs/routers/crs/software/crs_r4-0/security/configuration/guide/sc40crsbook_chapter5.html

NO.12 Which command is used to enable BIDIR-PIM under global configuration mode for Cisco IOS XE Sofware?
A. ip pim bidir-enable
B. ipv4 pim bidir-enable
C. ip multicast-routing
D. ip pim bidir
Answer: A
Explanation:
https://www.cisco.com/c/en/us/td/docs/ios-xml/ios/ipmulti_pim/configuration/xe-3s/imc-pim-xe-3sbook/imc_basic_cfg.html

NO.13 Which output from the show isis interface command helps an engineer troubleshoot an IS-IS adjacency problem on a Cisco IOS-XR platform?
A. metric
B. priority
C. circuit type
D. hello interval
Answer: C

NO.14 A network engineer is troubleshooting OSPF multiarea. Which Cisco IOS XR feature should the engineer use in order to streamline OSPF issue?
A. hierarchical CLI
B. DR support for topology management
C. routing process enabled by default on all interfaces
D. show ip ospf topology command
Answer: A
Explanation:
https://www.cisco.com/c/en/us/td/docs/routers/xr12000/software/xr12k_r4-0/routing/configuration/guide/rc40xr12k_chapter4.html#con_1059437

NO.15 Refer to the exhibit. After troubleshooting BGP traffic steering issue, which action did the network operator take to achieve the correct effect of this configuration?



A. Routes that have passed through AS 65517 have the local preference set to 150.
B. Routes that have originated through AS 65517 have the local preference set to 150.
C. Routes directly attached to AS 65517 have the local preference set to 150.
D. Routes that have passed through AS 65517 have the local preference set to 150 and the traffic is denied.
Answer: A

NO.16 For which reason can two BGP peers fail to establish a neighbor relationship?
A. Their BGP send-community strings are misconfigured
B. Their BGP timers are mismatched
C. Their remote-as numbers are misconfigured
D. They are both activated under an IPv4 address family
Answer: C

NO.17 In a PIM-SM environment, which mechanism determines the traffic that a receiver receives?
A. The receiver explicitly requests its desired traffic from the RP on the shared tree.
B. The receiver explicitly requests traffic from a single source, which responds by forwarding all traffic.
C. The RP on the shared tree floods traffic out of all PIM configured interfaces.
D. The receiver explicitly requests traffic from each desired source, which responds by sending all traffic.
Answer: A
Explanation:
A shared tree is built first between receiver and the RP. The receiver is then able to switch to a Source tree as needed.

NO.18 Which statement about BFD on Cisco IOS XR Software is true?
A. Cisco IOS XR router must use LDP to route back to the Cisco IOS router to establish the peer relationship.

B. Cisco IOS XR Software does not support BFD multihop for IPv4.
C. Cisco IOS XR router must use dynamic routing or a static route back to the Cisco IOS router to establish the peer relationship.
D. BFD is not compatible between Cisco IOS XR and Cisco IOS Software.
Answer: C
Explanation:
https://www.cisco.com/c/en/us/td/docs/routers/asr9000/software/asr9k-r6-3/routing/configuration/guide/b-routing-cg-asr9000-63x/b-routing-cg-asr9000-63x_chapter_0100.html

NO.19 Which two routing protocols have extensions capable of running SRv6? (Choose two.)
A. OSPF
B. BGP
C. RIP
D. IGRP
E. EIGRP
Answer: AB

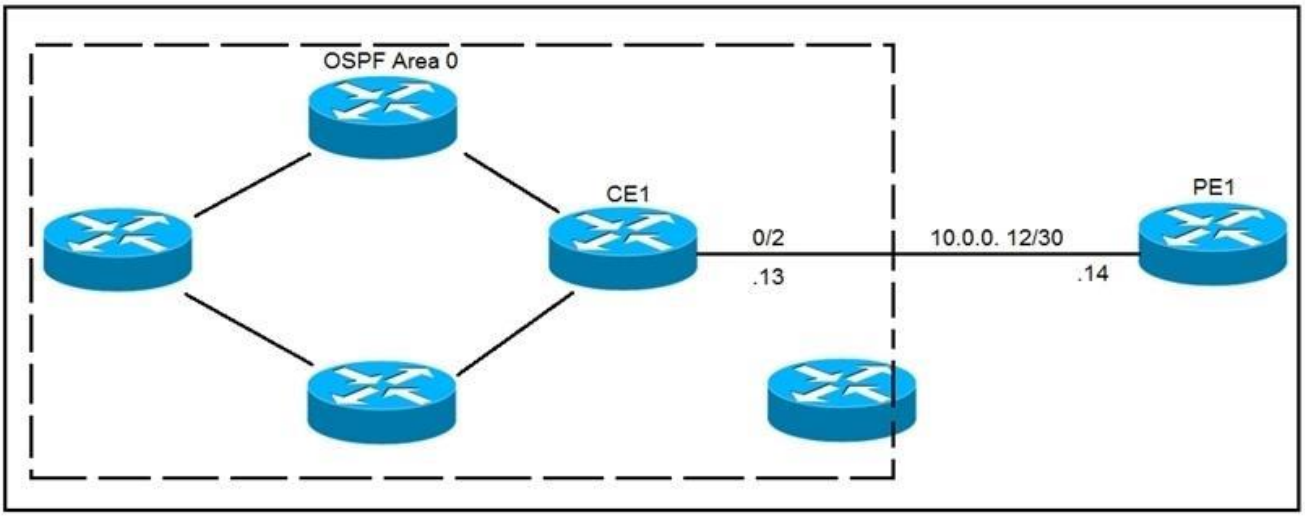
NO.20 Refer to the exhibit. A network engineer implemented this segment routing configuration. Which statement about the output is true?

```
RP/0/0/CPUO:iosxr# show run segment-routing

segment-routing
   global-block 18000 24999
!

RP/0/0/CPUO:iosxr#
```

A. This range conflicts with the segment routing local block range.
B. The device must be reloaded for these ranges to be allocated and used.
C. The default segment routing global block range is being used on this device.
D. A nondefault segment routing global block range is being used on this device.
Answer: D
Explanation:
https://www.cisco.com/c/en/us/td/docs/routers/asr920/configuration/guide/segment-routing/segment-routing-book/seg-routing-global-block.html

NO.21 Refer to the exhibit. CE1 is the gateway router into the provider network via PE1.
A network operator must inject a default route into OSPF area 0.
All devices inside area 0 must be able to reach PE1.

Which configuration achieves this goal?



A.

```
#CE1
router ospf 1
 default-information originate always
```

B.

```
#CE1
ip route 0.0.0.0 0.0.0.0 GigabitEthernet0/2 10.0.0.14
!
router ospf 1
 redistribute static
```

C.

```
#CE1
ip route 0.0.0.0 0.0.0.0 GigabitEthernet0/2 10.0.0.14
!
router ospf 1
 default-information originate
```

D.

```
#CE1
ip route 0.0.0.0 0.0.0.0 GigabitEthernet0/2 10.0.0.14
!
router ospf 1
 redistribute static subnets
```

Answer: C

Explanation:

https://www.cisco.com/c/en/us/support/docs/ip/open-shortest-path-first-ospf/47868-ospfdb9.html

NO.22 Which two characteristics unique to SSM when compared to ASM are true? (Choose two.)
A. It uses SPT switchover
B. It uses (*,G) exclusively
C. It uses IGMPv3
D. It uses RP
E. It uses (S,G) exclusively
Answer: CE

NO.23 Which two functions are supported for BGP extension MP-BGP for IP multicasting? (Choose two.)
A. A network can support incongruent unicast and multicast topologies.
B. A network can support congruent unicast and multicast topologies.
C. MP-BGP is an enhanced BGP that carries routing information for multiple network layer protocols and IP multicast routes.
D. MP-BGP carries single sets of routes for unicast routing and multicast routing.
E. MP-BGP is useful when a link dedicated to multicast and unicast traffic is desired.
Answer: AC

NO.24 In Cisco IOS-XR, the maximum-prefix command, to control the number of prefixes that can be installed from a BGP neighbor, is configured under which configuration mode?
A. RP/0/RSP0/CPU0:P2(config-bgp)#
B. RP/0/RSP0/CPU0:P2(config-bgp-af)#
C. RP/0/RSP0/CPU0:P2(config-bgp-nbr)#
D. RP/0/RSP0/CPU0:P2(config-bgp-nbr-af)#
Answer: D

NO.25 Refer to the exhibit. Which tree does multicast traffic follow?

```
PE-A
vrf definition Customer-A
 rd 65000:1111
 route-target export 65000:1111
 route-target import 65000:1111
 !
 address-family ipv4
  mdt default 233.0.0.1
  mdt data 233.0.0.2 0.0.0.0 threshold 100
 exit-address-family
```

```
PE-B
vrf definition Customer-A
 rd 65000:1111
 route-target export 65000:1111
 route-target import 65000:1111
 !
 address-family ipv4
  mdt default 233.0.0.1
  mdt data 233.0.0.3 0.0.0.0 threshold 100
 exit-address-family
```

A. shared tree
B. MDT default
C. source tree
D. MDT voice
Answer: B

NO.26 Refer to the exhibit. After you applied these configurations to routers R1 and R2, the two devices could not form a neighbor relationship.
Which reason for the problem is the most likely?

```
R1
interface g0/0
   ip address 192.168.1.1 255.255.255.0
   ip router isis
router isis
   net 49.0022.1111.1111.1111.00
   area-password ciSCo

R2
interface g0/1
   ip address 192.168.1.2 255.255.255.0
   ip router isis
router isis
   net 49.0022.1111.1111.1111.00
   area-password ciSco
```

A. The two routers cannot authenticate with one another.
B. The two routers have the same area ID.
C. The two routers have the same network ID.
D. The two routers have different IS-types.
Answer: C
Explanation:
For those asking about the password, area authentication doesn't prevent neighboring to come up because it is carried only in LSP, CSNP and PSNP messages and not in IIH messages.
https://www.cisco.com/c/en/us/support/docs/ip/integrated-intermediate-system-to-intermediate-system-is-is/13792-isis-authent.html

NO.27 Refer to the exhibit. Which effect of this configuration is true?

```
router bgp 65520
      timers bgp 30 240
```

A. It sets the keepalive timer to 30 seconds and the hold timer to 240 seconds.
B. It sets the keepalive timer to 30 milliseconds and the hold timer to 240 milliseconds
C. It sets the hold timer to 30 milliseconds and the keepalive timer to 240 milliseconds
D. It sets the hold timer to 30 seconds and the keepalive timer to 240 seconds
Answer: A

Explanation:
https://www.cisco.com/c/en/us/td/docs/ios-xml/ios/iproute_bgp/command/irg-cr-book/bgps1.html#wp1552800140

NO.28 A network engineer of an ISP using Cisco IOS XR routers wants to limit the number of prefixes that BGP peers can accept.
To accomplish this task, the command maximum-prefix 1000 is used.
Which two results of this configuration are expected? (Choose two.)
A. A warning message displays by default when 750 prefixes are received.
B. A warning message displays by default when 850 prefixes are received.
C. A BGP peer resets when it receives 1001 prefixes.
D. A BGP peer resets when it receives 1000 prefixes.
E. A BGP peer ceases when it receives 1001 prefixes.
F. A BGP peer ceases when it receives 1000 prefixes.
G. The BGP peer tries to reestablish the session after one minute.
Answer: AE

NO.29 A network engineer for an ISP wants to reduce the number of iBGP adjacencies.
A merge is taking place with another ISP network, so the network engineer needs to make both ASNs look like a single network for the Internet.
Which BGP technology is most suitable?
A. route reflector
B. confederation
C. clustering
D. peer group
Answer: B

NO.30 A network engineer must configure a Cisco IOS XR router with BGP dampening.
Which configuration meets these parameters?
A. router bgp 60
bgp dampening
B. router bgp 60
neighbor 10.0.0.2
bgp dampening
C. router bgp 60
address-family ipv4 unicast
bgp dampening
D. route-policy dampening_specific
drop
!
router bgp 60
address-family ipv4 unicast
bgp dampening route-policy dampening_specific
E. router bgp 60

address-family ipv4
bgp dampening
Answer: C