

## 640-878 Dumps

# Building Cisco Service Provider Next-Generation Networks, Part 2

<https://www.certleader.com/640-878-dumps.html>



**NEW QUESTION 1**

Which spanning-tree mode can be used to map several VLANs to a single spanning-tree instance?

- A. MST
- B. PVST+
- C. PVRST+
- D. RSTP

**Answer:** A

**NEW QUESTION 2**

On the Cisco ME 3400 switch, spanning tree is enabled by default on which type of switch port?

- A. UNI
- B. ENI
- C. NNI
- D. ENI and NNI
- E. UNI, ENI, and NNI

**Answer:** C

**Explanation:**

[http://www.cisco.com/en/US/docs/switches/metro/me3400/software/release/12.2\\_25\\_seg\\_seg1/configuration/guide/swstpopt.html#wp1002608](http://www.cisco.com/en/US/docs/switches/metro/me3400/software/release/12.2_25_seg_seg1/configuration/guide/swstpopt.html#wp1002608)

**NEW QUESTION 3**

ISPs use which protocol to establish peering sessions in an Internet exchange point environment?

- A. LDP
- B. IS-IS
- C. BGP
- D. OSPF

**Answer:** C

**NEW QUESTION 4**

You are enabling OSPF on a router and notice that all the Fast Ethernet and the Gigabit Ethernet interfaces have the same OSPF cost of 1. Which single configuration change can you make in router ospf configuration mode so that the Fast Ethernet interfaces have a higher OSPF cost than the Gigabit Ethernet interfaces?

- A. Change the OSPF interface cost globally.
- B. Change the OSPF default metric.
- C. Change the OSPF auto-cost reference bandwidth.
- D. Change the OSPF administrative distance.
- E. Change the OSPF metric type from E2 to E1.

**Answer:** C

**Explanation:**

[http://ccietobe.blogspot.com/2008/06/ospf-auto-cost-reference-bandwidth\\_02.html](http://ccietobe.blogspot.com/2008/06/ospf-auto-cost-reference-bandwidth_02.html)

**NEW QUESTION 5**

On Cisco IOS XR software, which set of commands enables OSPF area 0 on the Gi0/0/0/0 interface that has an IPv4 IP address of 192.168.1.1/24?

- A. router ospf 1 network 192.168.1.1 0.0.0.0 area 0
- B. router ospf 1 network 192.168.1.1 255.255.255.255 area 0
- C. router ospf 1 area 0 interface gi0/0/0/0
- D. router ospfv3 1 network 192.168.1.1 0.0.0.0 area 0
- E. router ospfv3 1 network 192.168.1.1 255.255.255.255 area 0
- F. router ospfv3 1 area 0 network 192.168.1.0
- G. router ospfv3 1 area 0 interface gi0/0/0/0

**Answer:** C

**NEW QUESTION 6**

A VLAN is a logical grouping of switch ports that belong to which two of these? (Choose two.)

- A. the same virtual switch cluster
- B. the same IP subnet
- C. the same collision domain
- D. the same broadcast domain
- E. the same virtual routing and forwarding instance

**Answer:** BD

**NEW QUESTION 7**

Refer to the exhibit.

```
SwitchX#configure terminal
SwitchX(config)#interface fa0/11
SwitchX(config-if)#switchport mode trunk
SwitchX(config-if)#end
```

Which statement is true?

- A. VLAN 1 traffic is sent untagged on the fa0/11 trunk port.
- B. All VLANs traffic, including the native VLAN traffic, is tagged with a VLAN ID when it is sent over the fa0/11 trunk port.
- C. The switchport trunk allowed vlan command is not configured; therefore, no VLANs are allowed on the trunk.
- D. The encapsulation type that is used is 802.1ad.
- E. The switchport trunk native vlan command is not configured; therefore, the trunk is not operational.

**Answer: A**

**NEW QUESTION 8**

Refer to the partial configurations exhibit.

```
! ME3400
!
ip routing
!
vlan 10
vlan 20
interface Fa0/1
switchport access vlan 10
interface Fa0/2
switchport access vlan 20
!
```

What additional configurations are required to enable inter-VLAN routing for VLANs 10 and 20 on the Cisco ME 3400 switch using the metro IP access image?

- A. interface Fa0/1 ip address 192.168.10.1 255.255.255.0!interface Fa0/2 ip address 192.168.20.1 255.255.255.0!
- B. interface Fa0/1 ip address 192.168.10.1 255.255.255.0!interface Fa0/2 ip address 192.168.20.1 255.255.255.0!router eigrp 1 network 192.168.10.0 network 192.168.20.0!
- C. interface vlan 10 ip address 192.168.10.1 255.255.255.0!interface vlan 20 ip address 192.168.20.1 255.255.255.0!
- D. interface Fa0/1 encapsulation dot1q 10 ip address 192.168.10.1 255.255.255.0!interface Fa0/2 encapsulation dot1q 20 ip address 192.168.20.1 255.255.255.0!

**Answer: C**

**NEW QUESTION 9**

Which IPv6 address block is reserved for 6to4 tunneling?

- A. 2000::/16
- B. 2001::/16
- C. 2002::/16
- D. 3ffe::/16
- E. fe80::/16

**Answer: C**

**Explanation:** <http://www.cisco.com/en/US/docs/ios/ipv6/configuration/guide/ip6-tunnel.html#wp1055738>

Prerequisites

With 6to4 tunnels, the tunnel destination is determined by the border router IPv4 address, which is concatenated to the prefix 2002::/16 in the format 2002:router-IPv4-address::/48. The border router at each end of a 6to4 tunnel must support both the IPv4 and IPv6 protocol stacks.

Restrictions

The configuration of only one IPv4-compatible tunnel and one 6to4 IPv6 tunnel is supported on a router. If you choose to configure both of those tunnel types on the same router, we strongly recommend that they do not share the same tunnel source. The reason that a 6to4 tunnel and an IPv4-compatible tunnel cannot share an interface is that both of them are NBMA "point-to-multipoint" access links and only the tunnel source can be used to reorder the packets from a multiplexed packet stream into a single packet stream for an incoming interface. So when a packet with an IPv4 protocol type of 41 arrives on an interface, that packet is mapped to an IPv6 tunnel interface based on the IPv4 address. However, if both the 6to4 tunnel and the IPv4-compatible tunnel share the same source interface, the router is not able to determine the IPv6 tunnel interface to which it should assign the incoming packet. IPv6 manually configured tunnels can share the same source interface because a manual tunnel is a "point-to-point" link, and both the IPv4 source and IPv4 destination of the tunnel are defined.

**NEW QUESTION 10**

When upgrading a Cisco ASR 1001 Router, when is the request platform software package expand file bootflash:image-name command required?

- A. to copy the consolidated Cisco IOS XE image to the bootflash:
- B. to perform Cisco IOS ISSU on the standby route processor
- C. to run the router using a consolidated package
- D. to run the router using individual subpackages

**Answer: D**

**Explanation:** <http://www.cisco.com/en/US/docs/routers/asr1000/configuration/guide/chassis/asrswcfg.pdf>

## File Systems on the Cisco ASR 1000 Series Router

Table 3 provides a list of file systems that can be seen on the Cisco ASR 1000 Series Routers.

**Table 3** File Systems

File System	Description
bootflash:	The boot flash memory file system on the active RP.
cns:	The Cisco Networking Services file directory.
harddisk:	The hard disk file system on the active RP. The harddisk: file system is not available on the Cisco ASR 1002 Routers.
nvrnram:	Router NVRAM. You can copy the startup configuration to NVRAM or from NVRAM.
obfl:	The file system for Onboard Failure Logging files.
stby-bootflash:	The boot flash memory file system on the standby RP.
stby-harddisk:	The hard disk file system on the standby RP. The harddisk: file system is not available on the Cisco ASR 1002 Routers.
stby-usb[0-1]:	The Universal Serial Bus (USB) flash drive file systems on the standby RP. The stby-usb: file system is not available on the Cisco ASR 1002 Routers.
system:	The system memory file system, which includes the running configuration.
tar:	The archive file system.
tmpsys:	The temporary system files file system.
usb[0-1]:	The Universal Serial Bus (USB) flash drive file systems on the active RP. Only usb0: is available on the Cisco ASR 1002 Router.

### NEW QUESTION 10

Which Cisco router platform supports running either the Cisco IOS or IOS XR operating system?

- A. Cisco CRS
- B. Cisco ASR9k
- C. Cisco ASR1K
- D. Cisco ISR-G2
- E. Cisco 12000 GSR

**Answer:** E

#### Explanation:

The CRS-1 platform natively runs the IOS XR operating system. The c12000 platform, originally being an IOS router, can be upgraded to run IOS XR. However, c12000 hardware, including line cards (LC) as well as route processors (RP), must be checked for XR compliance. TURBOBOOT refers to a fresh boot of the router from ROMMON. TURBOBOOT is required if an IOS router is being converted to IOS XR or as a last resort disaster recovery in the case of CRS-1. If the router is already running an IOS XR image, there is no need to TURBOBOOT the router for an upgrade or downgrade. Later sections in this chapter address the upgrade scenario. This section deals with a fresh boot of the router from ROMMON. A new c12000 platform can be ordered prebaked as an IOS XR router; however, there will always be cases where an IOS running c12000 needs to install IOS XR.

### NEW QUESTION 15

You want to configure HSRP between a Cisco IOS and a Cisco IOS XR router for the 192.0.2.0/24 subnet. Half of the PCs on the 192.0.2.0/24 subnet are configured to use 192.0.2.1 as the default gateway, and the other half of the PCs are configured to use 192.0.2.254 as the default gateway. The intent is to load balance the traffic across both routers.

Which two IOS and IOS XR configurations are needed? (Choose two.)

- A. ! IOS-XRinterface GigabitEthernet 0/0/0/0ip address 192.0.2.3 255.255.255.0router hsrpinterface GigabitEthernet 0/0/0/0 hsrp 1 ipv4 192.0.2.1hsrp 1 priority 95hsrp 1 preempthsrp 2 ipv4 192.0.2.254hsrp 2 priority 105hsrp 2 preempt
- B. ! IOS-XRinterface GigabitEthernet 0/0/0/0ip address 192.0.2.1 255.255.255.0router hsrpinterface GigabitEthernet 0/0/0/0 hsrp 1 ipv4 192.0.2.1hsrp 1 priority 99hsrp 1 preempthsrp 2 ipv4 192.0.2.254hsrp 2 priority 101hsrp 2 preempt
- C. ! IOS-XRinterface GigabitEthernet 0/0/0/0ip address 192.0.2.3 255.255.255.0router hsrpinterface GigabitEthernet 0/0/0/0 hsrp 1 ipv4 192.0.2.1hsrp 1 priority 1hsrp 1 preempthsrp 2 ipv4 192.0.2.254hsrp 2 priority 1hsrp 2 preempt
- D. ! IOSinterface GigabitEthernet 0/0ip address 192.0.2.2 255.255.255.0standby 1 ip 192.0.2.1standby 1 priority 105standby 1 preemptstandby 2 ip 192.0.2.254standby 2 priority 95standby 2 preempt
- E. ! IOSinterface GigabitEthernet 0/0ip address 192.0.2.254 255.255.255.0standby 1 ip 192.0.2.1standby 1 preemptstandby 2 ip 192.0.2.254standby 2 preempt
- F. ! IOSinterface GigabitEthernet 0/0ip address 192.0.2.2 255.255.255.0standby 1 ip 192.0.2.1standby 1 preemptstandby 1 priority 2standby 2 ip 192.0.2.254standby 2 preemptstandby 2 priority 2

**Answer:** AD

### NEW QUESTION 18

On Cisco IOS XR software, which two of the address-family command options in IS-IS configuration mode are valid? (Choose two)

- A. address-family clns
- B. address-family ipv4 unicast
- C. address-family ipv6 unicast
- D. address-family vpv4
- E. address-family vpv6

**Answer:** BC

**Explanation:**

[http://www.cisco.com/en/US/docs/ios\\_xr\\_sw/iosxr\\_r3.8/routing/command/reference/rr38isis.pdf](http://www.cisco.com/en/US/docs/ios_xr_sw/iosxr_r3.8/routing/command/reference/rr38isis.pdf) To enter address family configuration mode for configuring Intermediate System-to-Intermediate System (IS-IS) routing that use standard IP Version 4 (IPv4) and IP Version 6 (IPv6) address prefixes, use the address-family command in router configuration or interface configuration mode. To disable support for an address family, use the no form of this command. Address family {ipv4 | ipv6} {unicast | multicast} no address-family {ipv4 | ipv6} {unicast | multicast}

**NEW QUESTION 20**

On Cisco routers, the address-family configuration command in BGP configuration mode is used to enable which BGP feature?

- A. BGP route policy
- B. multiprotocol BGP
- C. BGP policy accounting
- D. BGP communities

**Answer:** B

**NEW QUESTION 21**

Your switch network has been configured to support multiple VLANs. In order for the users on one VLAN to communicate with users on another VLAN, which additional configuration is required?

- A. Enable a routing protocol like EIGRP on a router or on a Layer 3 capable switch
- B. Enable inter-VLAN routing on a router or on a Layer 3 capable switch
- C. Enable a switch virtual interface on the router, using the interface vlan global configuration command
- D. Enable a switch virtual interface on the switch, using the encapsulation dot1q
- E. subinterface configuration command
- F. Enable IP routing on a Layer 2 switch

**Answer:** B

**NEW QUESTION 22**

Within an MPLS domain, which table is used by the label switch routers to make forwarding decisions when a labeled packet is received?

- A. FIB
- B. RIB
- C. LFIB
- D. LIB
- E. CEF

**Answer:** C

**Explanation:**

[http://www.cisco.com/en/US/docs/ios-xml/ios/mp\\_ldp/configuration/12-4m/mp-ldp-12-4m-book.pdf](http://www.cisco.com/en/US/docs/ios-xml/ios/mp_ldp/configuration/12-4m/mp-ldp-12-4m-book.pdf)

**NEW QUESTION 23**

When configuring a new VLAN on Cisco IOS switches, which configuration parameter is required?

- A. VLAN name
- B. native VLAN ID
- C. VLAN ID
- D. VLAN map
- E. VLAN MTU

**Answer:** C

**NEW QUESTION 27**

What is a requirement for performing Cisco IOS ISSU on the Cisco IOS XE-based ASR 1006 and ASR 1013 routers?

- A. must use consolidated package mode
- B. must use subpackage mode
- C. must have redundant RPs
- D. must have owner and nonowner SDRs

**Answer:** C

**Explanation:**

**Table 1.** This Table Details the Effect of Each Package Upgrade

Software Sub-Packages	Cisco ASR 1002 / Cisco ASR 1004	Cisco ASR 1006
RPBase	This contains the underlying Linux kernel so can not be upgraded "in service" <b>Requires reboot</b>	The standby RP in the Cisco ASR 1006 chassis may be upgraded and then switched over to active mode "in service" <b>Requires RP switchover; No transit packet loss</b>
RPControl	Can be upgraded "in service" <b>No transit packet loss</b>	Can be upgraded "in service" on both active RP and standby RP <b>No transit packet loss</b>
RPAccess	Can be upgraded "in service" <b>No transit packet loss</b>	Can be upgraded "in service" on both active RP and standby RP <b>No transit packet loss</b>
RPIOS	Can be upgraded "in service" if the system is running in dual IOS mode <b>Requires IOS processes switchover; No transit packet loss</b>	Can be upgraded on standby RP and switched over to active in service <b>Requires RP (IOS) switchover; No transit packet loss</b>

**NEW QUESTION 30**

Refer to the partial Cisco IOS router configuration exhibit.

```

interface FastEthernet0/0
no ip address
no shut
!
interface FastEthernet0/0.1
ip address 192.168.1.1 255.255.255.0
!
interface FastEthernet0/0.2
ip address 192.168.2.1 255.255.255.0
!
interface FastEthernet0/0.3
ip address 192.168.3.1 255.255.255.0
!
    
```

Which statement is true?

- A. To support the subinterface configuration, the Fa0/0 main interface configuration is missing the encapsulation dot1Q command.
- B. The Fa0/0 interface/subinterfaces are configured correctly to operate as a trunk port to provide inter-VLAN routing for three VLANs (VLANs 1, 2, and 3).
- C. To provide inter-VLAN routing, the Fa0/0.1, Fa0/0.2 and Fa0/0.3 subinterface configuration is missing the encapsulation dot1Q vlan-id subinterface configuration command.
- D. To provide inter-VLAN routing, the router is missing the vlan 1, vlan 2, and vlan 3 global configuration commands.

**Answer: C**

**NEW QUESTION 35**

Refer to the partial Cisco IOS XR BGP configuration exhibit.

```

router bgp 64500
 address-family ipv4 unicast
  network 10.1.1.1/32
 !
 address-family ipv6 unicast
  network 2001:db8:10:1:1::1/128
 !
 neighbor 10.2.1.1
  remote-as 64500
  update-source Loopback0
  address-family ipv4 unicast
  !
 !
 neighbor 192.168.101.11
  remote-as 64501
  password encrypted 13061E010803
  address-family ipv4 unicast
  route-policy Test1 in
  route-policy Test1 out
  !
 !
 neighbor 2001:db8:10:2:1::1
  remote-as 64500
  address-family ipv6 unicast
  !
 !
 neighbor 2001:db8:192:168:101::11
  remote-as 64501
  address-family ipv6 unicast
  route-policy Test1 in
  route-policy Test1 out
  !
 !
 !
end

```

Which two statements are true? (Choose two)

- A. This router uses its Loopback 0 interface IP address when establishing BGP peering with the 10.2.1.1 router.
- B. This router uses its Loopback 0 interface IP address when establishing BGP peering with the 192.168.101.11 router.
- C. Test1 refers to a route policy that is defined using the RPL.
- D. Both the IBGP and EBGP sessions will be authenticated.
- E. The IBGP session is missing the mandatory route-policy configuration.

**Answer:** AC

#### NEW QUESTION 40

Refer to the partial Cisco IOS router configuration exhibit.

```

interface Tunnel0
 ipv6 address 2001:db8:3::2/64
 tunnel source GigabitEthernet0/0
 tunnel destination 209.165.201.1
 tunnel mode ipv6ip
 !

```

Which type of tunnel configuration is shown?

- A. GRE tunnel
- B. manual 6in4 tunnel
- C. 6to4 automatic tunnel
- D. 6RD
- E. IPv4-in-IPv6 tunnel

**Answer:** B

**Explanation:** <http://www.networking-forum.com/blog/?p=24>

#### NEW QUESTION 42

Which two protocols are most often deployed in Cisco IP NGN multiservices core networks to support services like VPNs? (Choose two.)

- A. MPLS
- B. GRE
- C. mGRE
- D. SSL
- E. VTI
- F. multiprotocol BGP

**Answer:** AF

**NEW QUESTION 44**

Which segment protocol provides fast and predictable convergence (typically within 50 ms) in Layer 2 Ethernet ring topologies?

- A. Spanning Tree Protocol
- B. Flex Links
- C. Resilient Ethernet Protocol
- D. Spatial Reuse Protocol
- E. Resilient Packet Ring

**Answer:** C

**Explanation:** [http://www.cisco.com/en/US/docs/switches/metro/me3400/software/release/12.2\\_40\\_se/configuration/guide/swrep.html](http://www.cisco.com/en/US/docs/switches/metro/me3400/software/release/12.2_40_se/configuration/guide/swrep.html)  
Resilient Ethernet Protocol (REP) on the Cisco ME 3400E Ethernet Access switch. REP is a Cisco proprietary protocol that provides an alternative to Spanning Tree Protocol (STP) to control network loops, handle link failures, and improve convergence time. REP controls a group of ports connected in a segment, ensures that the segment does not create any bridging loops, and responds to link failures within the segment. REP provides a basis for constructing more complex networks and supports VLAN load balancing.

**NEW QUESTION 46**

Within an MPLS domain, which table is used by the ingress edge LSR to make forwarding decisions when an unlabeled IP packet is received?

- A. FIB
- B. LFIB
- C. LIB
- D. MP-BGP
- E. VRF

**Answer:** A

**Explanation:**

**Table 19-2. MPLS LSR Terminology Reference**

LSR Type	Actions Performed by This LSR Type
Label Switch Router (LSR)	Any router that pushes labels onto packets, pops labels from packets, or simply forwards labeled packets.
Edge LSR (E-LSR)	An LSR at the edge of the MPLS network, meaning that this router processes both labeled and unlabeled packets.
Ingress E-LSR	For a particular packet, the router that receives an unlabeled packet and then inserts a label stack in front of the IP header.
Egress E-LSR	For a particular packet, the router that receives a labeled packet and then removes all MPLS labels, forwarding an unlabeled packet.
ATM-LSR	An LSR that runs MPLS protocols in the control plane to set up ATM virtual circuits. Forwards labeled packets as ATM cells.
ATM E-LSR	An E-edge LSR that also performs the ATM Segmentation and Reassembly (SAR) function.

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## MPLS Forwarding Using the FIB and LFIB

To forward packets as shown in Figure 19-2, LSRs use both the CEF FIB and the MPLS LFIB when forwarding packets. Both the FIB and LFIB hold any necessary label information, as well as the outgoing interface and next-hop information.

The FIB and LFIB differ in that routers use one table to forward incoming unlabeled packets, and the other to forward incoming labeled packets, as follows:

- **FIB**—Used for incoming unlabeled packets. Cisco IOS matches the packet's destination IP address to the best prefix in the FIB and forwards the packet based on that entry.
- **LFIB**—Used for incoming labeled packets. Cisco IOS compares the label in the incoming packet to the LFIB's list of labels and forwards the packet based on that LFIB entry.

Figure 19-3 shows how the three LSRs in Figure 19-2 use their respective FIBs and LFIB. Note that Figure 19-3 just shows the FIB on the LSR that forwards the packet using the FIB and the LFIB on the two LSRs that use the LFIB, although all LSRs have both a FIB and an LFIB.



**Figure 19-3** Usage of the CEF FIB and MPLS LFIB for Forwarding Packets

The figure shows the use of the FIB and LFIB, as follows:

- **PE1**—When the unlabeled packet arrives at PE1, PE1 uses the FIB. PE1 finds the FIB entry that matches the packet's destination address of 10.3.3.1—namely, the entry for 10.3.3.0/24 in this case. Among other things, the FIB entry includes the instructions to push the correct MPLS label in front of the packet.
- **P1**—Because P1 receives a labeled packet, P1 uses its LFIB, finding the label value of 22 in the LFIB, with that entry stating that P1 should swap the label value

### NEW QUESTION 49

Which three statements about access control lists on a Cisco IOS router are true? (Choose three)

- A. The more specific ACL entries should be placed at the top of the ACL.
- B. The generic ACL entries should be placed at the top of the ACL, to filter general traffic and reduce noise on the network.
- C. ACLs always search for the most specific entry before taking any filtering action.
- D. Router-generated packets cannot be filtered by the interface ACLs on the router.
- E. Extended ACLs should be placed as close to the destination as possible.
- F. There must be at least one permit statement in an ACL, or all traffic is denied.

**Answer:** ADF

### NEW QUESTION 54

Which Cisco IOS access list permits HTTP traffic that is sourced from host 10.1.129.100 port 3030 and that is destined to host 192.168.1.10?

- A. access-list 101 permit tcp any eq 3030
- B. access-list 101 permit tcp 10.1.129.0 0.0.1.255 eq 3030 192.168.1.0 0.0.0.15 eq www
- C. access-list 101 permit tcp 10.1.129.0 0.0.0.255 eq www 192.168.1.10 0.0.0.0 eq www
- D. access-list 101 permit tcp host 192.168.1.10 eq 80 10.1.0.0 0.0.255.255 eq 3030
- E. access-list 101 permit tcp 192.168.1.10 0.0.0.0 eq 80 10.1.0.0 0.0.255.255
- F. access-list 101 permit ip host 10.1.129.100 eq 3030 host 192.168.1.100 eq 80

**Answer:** B

### NEW QUESTION 59

What is dual IOS mode on the Cisco ASR 1001 Router?

- A. redundant IOS processes that are running on the active RP and standby RP
- B. active and standby IOS processes that are running on a single RP
- C. separate Cisco IOS XE and IOS XR processes that are running on a single RP
- D. separate Cisco IOS XE and IOS XR processes that are running on two different RPs
- E. checkpointed redundant IOS processes that are running on two different RPs in active/active mode

**Answer:** B

**Explanation:**

Redundancy Requirements				
Chassis	Inbox Redundancy Type	Default Memory	Minimum Memory For Redundancy	Redundancy Feature License
ASR1001	SW No ISSU*	4G	8G	FLSASR1-IOSRED(=) or L-FLSASR1-IOSRED=
ASR1002	SW No ISSU*	4G	4G	FLASR1-IOSRED-RTU(=)
ASR1002-X	SW No ISSU*	4G	8G	FLSASR1-IOSRED(=) or L-FLSASR1-IOSRED=
ASR1004	SW No ISSU*	RP1/RP1-N 4G, RP1-N, RP2 8G	RP1/RP1-N 4G, RP2 16G	FLASR1-IOSRED-RTU(=)
ASR1006	HW ISSU**	RP1/RP1-N 4G, RP1-N, RP2 8G	RP1/RP1-N 4G, RP2 16G	N/A
ASR1013	HW ISSU**	RP2 8G	RP2 16G	N/A

\* Supports dual Cisco IOS Software redundancy.

\*\* Supports hardware route processor and ESP redundancies, but does not support software redundancy.

**NEW QUESTION 60**

A service provider needs to implement a managed CE device that supports Cisco IOS ISSU, and the current CE support staff is highly trained in Cisco IOS only. Which Cisco router platform should the service provider implement as the managed CE device?

- A. Cisco ASR1K
- B. Cisco ISR-G2
- C. Cisco ASR9K
- D. Cisco 12000 GSR
- E. Cisco 7200
- F. Cisco 7600

**Answer: A**

**Explanation:**

Table 1. Access Router MPLS Positioning

	Service-Provider-Managed MPLS Network			Self-Deployed MPLS Network			
	Customer Edge	Multi-VRF Customer Edge	CSC Customer Edge	Customer Edge	Multi-VRF Customer Edge	I ER	I SR
Cisco 3900 Series ISRs	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cisco 3800 Series ISRs	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cisco 2900 Series ISRs	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cisco 2800 Series ISRs	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cisco 1900 Series ISRs	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cisco 1041 ISR	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cisco 1800	Yes	Yes	Yes	Yes	Yes	Yes	Yes

**NEW QUESTION 65**

On Cisco IOS XR software, what are the four valid address-family configuration command options in static route configuration mode? (Choose four.)

- A. address-family ipv4 unicast
- B. address-family ipv6 unicast
- C. address-family ipv4 multicast
- D. address-family ipv6 multicast
- E. address-family vpnv4
- F. address-family vpnv6

**Answer:** ABCD

**Explanation:**

**address-family ipv4 (BGP)**

To enter address family or router scope address family configuration mode to configure a routing session using standard IP Version 4 (IPv4) address prefixes, use the **address-family ipv4** command in router configuration or router scope configuration mode. To exit address family configuration mode and remove the IPv4 address family configuration from the running configuration, use the **no** form of this command.

**Syntax Available Under Router Configuration Mode**

```
address-family ipv4 [mdt | multicast | tunnel | unicast [vrf vrf-name] | vrf vrf-name]
no address-family ipv4 [mdt | multicast | tunnel | unicast [vrf vrf-name] | vrf vrf-name]
```

**Syntax Available Under Router Scope Configuration Mode**

```
address-family ipv4 [mdt | multicast | unicast]
no address-family ipv4 [mdt | multicast | unicast]
```

**Syntax Description**

<b>mdt</b>	(Optional) Specifies an IPv4 multicast distribution tree (MDT) address family session.
<b>multicast</b>	(Optional) Specifies IPv4 multicast address prefixes.
<b>tunnel</b>	(Optional) Specifies an IPv4 routing session for multipoint tunneling.
<b>unicast</b>	(Optional) Specifies IPv4 unicast address prefixes. This is the default.
<b>vrf vrf-name</b>	(Optional) Specifies the name of the VPN routing and forwarding (VRF) instance to associate with subsequent IPv4 address family configuration mode commands.

**NEW QUESTION 68**

Which three Cisco platforms are classified as core routers? (Choose three.)

- A. Cisco XR 12000
- B. Cisco ME 3400
- C. Cisco ASR 1006
- D. Cisco CRS-3
- E. Cisco ASR 9010
- F. Cisco 3900

**Answer:** ADE

**Explanation:**

Both the ASR 9010 and ASR 9006 routers are designed with key capabilities to help deliver the services of tomorrow. Providing increased bandwidth capabilities for network devices at economically viable prices is one of the primary criteria for true carrier- transport platforms. While traditional service prices continue to decline, the Cisco ASR 9000 Series helps establish a new financial reality by facilitating reliable and scalable video, nextgeneration mobile aggregation, and advanced Carrier Ethernet service offerings.

The Cisco® XR 12000 Series and Cisco 12000 Series routers compose a portfolio of intelligent routing solutions that scale from 2.5- to n x10 Gbps capacity per slot, enabling carrier-class IP/Multiprotocol Label Switching (MPLS) networks and accelerating the evolution to IP Next- Generation Networks. Built upon a foundation of investment protection, this portfolio delivers up to 1.28-terabits-per-second switching capacity with wire-speed feature performance, scalability, and graceful hardware and software upgrade paths.

**NEW QUESTION 73**

Which two statements about the link state routing process are true? (Choose two.)

- A. It uses the DUAL algorithm.
- B. It uses metrics such as AS path.
- C. All routers in the area have link state databases.
- D. The administrative distance is 1 by default.
- E. Each router in the area floods LSPs to all neighbors.

**Answer:** CE

#### NEW QUESTION 74

Which two statements about carrier-grade NAT are true? (Choose two.)

- A. It conserves IPv4 addresses.
- B. A service provider issues private IP addresses to its customers.
- C. A service provider translates the private IP address of its customer to another private IP address.
- D. It is implemented on the CE and PE routers.
- E. It is designed to simplify IPv6 addressing.

**Answer:** AB

**Explanation:** [http://www.cisco.com/en/US/docs/routers/crs/software/crs\\_r3.9.1/cg\\_nat/configuration/guide/cgc39\\_1cgn.html#wp1268988](http://www.cisco.com/en/US/docs/routers/crs/software/crs_r3.9.1/cg_nat/configuration/guide/cgc39_1cgn.html#wp1268988)

Carrier Grade NAT Overview

Carrier Grade Network Address Translation (CGN) is a large scale NAT that is capable of providing private IPv4 to public IPv4 translation in the order of millions of translations to support several hundred thousand subscribers and bandwidth throughput of at least 10 Gbps full-duplex.

CGN is a workable solution to the IPv4 address depletion problem while offering a way for service provider subscribers and content providers to implement a graceful transition to IPv6. CGN employs network address and port translation (NAPT) methods to aggregate many private IP addresses into fewer public IPv4 addresses. For example, a single public IPv4 address with a pool of 32 K port numbers supports 320 individual private IP subscribers assuming each subscriber requires 100 ports (for example, each TCP connection needs one port number). A CGN requires IPv6 to assist with the transition from IPv4 to IPv6.

#### NEW QUESTION 77

Which three are correct statements based on the BGP configuration below? (Choose three.)

```
Router#config t Router(config)#router bgp 1
Router(config-router)#neighbor 1.1.1.1 remote-as 1
Router(config-router)#neighbor 3.3.3.3 remote-as 2
```

- A. local AS is 1
- B. local AS is 2
- C. neighbor 1.1.1.1 remote-as 1 is iBGP peer
- D. neighbor 1.1.1.1 remote-as 1 is eBGP peer
- E. neighbor 3.3.3.3 remote-as 2 is iBGP peer
- F. neighbor 3.3.3.3 remote-as 2 is eBGP peer
- G. neighbor 2.2.2.2 remote-as 2 is iBGP peer
- H. neighbor 2.2.2.2 remote-as 2 is eBGP peer

**Answer:** ACF

#### NEW QUESTION 79

A network engineer is trying to determine the mac address of a server attached to a switchport on a Cisco Catalyst 6500 Switch. The interface is connected, but no MAC address is present. The server has an IP address of 169.x.x.x. At which layer of the OSI Model does the problem exist?

- A. Layer 1
- B. Layer 2
- C. Layer 3
- D. Layer 4
- E. Layer 5
- F. Layer 6
- G. Layer 7

**Answer:** A

#### NEW QUESTION 81

Which number range is allocated to private Autonomous Systems by the Internet Assigned Numbers Authority?

- A. 65535 to 65545
- B. 64535 to 64536
- C. 64512 to 65535
- D. 65535 to 66001
- E. 63512 to 64535

**Answer:** C

#### NEW QUESTION 83

Which of the following commands would be used to prevent a switchport from processing Bridge Protocol Data Units?

- A. switch(config)#bpdu filter enable
- B. switch(config)#no bpdu enable
- C. switch(config-if)#spanning-tree bpduguard enable
- D. switch(config-if)#no spanning-tree bpdu filter enable
- E. switch(config-if)#spanning-tree bpdu guard

**Answer:** C

#### NEW QUESTION 88

Which command configures a switchport to connect only a host device in VLAN 301?

- A. switchport access vlan 301

- B. switchport mode trunk vlan 301
- C. switchport mode access vlan 301
- D. switchport vlan 301

**Answer:** A

**NEW QUESTION 89**

Refer to the exhibit.

```
Switch# show running-config interface fastethernet 5/6

Building configuration...
Current configuration:
!
interface FastEthernet5/6
switch mode access
shutdown
end
```

Which three commands are required on interface fastethernet 5/6 in order to create a trunk link between another Cisco Catalyst Switch? (Choose three.)

- A. no shutdown
- B. switchport mode trunk
- C. encapsulation trunk
- D. switchport trunk encapsulation dot1Q
- E. switchport trunk enable
- F. no switchport
- G. interface fastethernet 5/6 trunk
- H. switchport trunk allow dot1Q

**Answer:** ABD

**NEW QUESTION 93**

A customer has been allocated a new VLAN on a new Layer 3 switch. After configuring the Switched Virtual Interface, what additional two configurations are required to ensure the switch can route packets to the Internet through a gateway with IP address of 209.165.200.250? (Choose two.)

- A. IP default-gateway 209.165.200.250
- B. IP routing
- C. IP route 0.0.0.0 0.0.0.0 209.165.200.250
- D. IP routing 0.0.0.0 0.0.0.0 209.165.200.250
- E. IP networking

**Answer:** BC

**NEW QUESTION 98**

Refer to the partial Cisco IOS-XR configuration. What is the purpose of the for PFX to PEER command?

```
!
mpls ldp label advertise
disable
for PFX to PEER
!<output omitted>
!
```

- A. To selectively enable LDP peering(s) with specific neighbors
- B. To selectively disable LDP peering(s) with specific neighbors
- C. To perform outbound filtering for local label advertisement for one or more prefixes to one or more peers
- D. To perform inbound filtering for local label advertisement for one or more prefixes from one or more peers

**Answer:** C

**NEW QUESTION 103**

Refer to the exhibit.

```
! ME3400
!
ip routing
!
vlan 10
vlan 20
interface Fa0/1
switchport access vlan 10
interface Fa0/2
switchport access vlan 20
!
```

What additional configuration is required to enable inter-VLAN routing for VLANs 10 and 20 on the Cisco ME 3400 switch using the Metro IP Access image?

- A. interface Fa0/1 ip address 192.168.10.1 255.255.255.0!interface Fa0/2 ip address 192.168.20.1 255.255.255.0!
- B. interface Fa0/1 ip address 192.168.10.1 255.255.255.0!interface Fa0/2 ip address 192.168.20.1 255.255.255.0!router eigrp 1 network 192.168.10.0 network 192.168.20.0!
- C. interface vlan 10 ip address 192.168.10.1 255.255.255.0!interface vlan 20 ip address 192.168.20.1 255.255.255.0!

D. interface Fa0/1 encapsulation dot1q 10ip address 192.168.10.1 255.255.255.0!interface Fa0/2 encapsulation dot1q 20ip address 192.168.20.1 255.255.255.0!

**Answer:** C

**NEW QUESTION 106**

What three statements about REP configurations on a Cisco ME 3400 switch port are true? (Choose three.)

- A. The port must be an NNI type and must be in trunk mode.
- B. The rep segment number command is used to enable REP on the switch port.
- C. A REP segment cannot be wrapped into a ring topology.
- D. The port where the segment terminates is called the edge port.
- E. If a failure occurs within the segment, the blocked port goes to the forwarding state
- F. Ports are never blocked in a given segment

**Answer:** ABD

**NEW QUESTION 107**

Refer to the configuration output below. OSPFv2 is already configured on a customer router and the customer is requesting that OSPFv3 be added. What configuration is needed in order to add OSPFv3 to the fastethernet0/0 interface?

```
Configuration: ipv6 router ospf 1
router-id 209.165.200.227
area 2 nssa
interface fastethernet0/0
ip address 2001:DB8:0:7::
```

- A. interface FastEthernet0/0 ipv4 ospf 1 area 2
- B. interface FastEthernet0/0 ipv6 ospf 1 area 2
- C. interface FastEthernet0/0 ipv6 1 area 2
- D. interface FastEthernet0/0 area 2 ospf 1 ipv6

**Answer:** B

**NEW QUESTION 110**

Refer to the configuration snippet below. A new IOS-XR router is being added to the network. What command is required to enable the Label Distribution Protocol on interface GigabitEthernet 0/3/0/0?

```
Configuration: mpls ldp
router-id 209.165.200.226
```

- A. interface GigabitEthernet0/3/0/0
- B. mpls ldpinterface GigabitEthernet0/3/0/0
- C. interface GigabitEthernet0/3/0/0 ldp enable
- D. ldpinterface GigabitEthernet0/3/0/0

**Answer:** B

**NEW QUESTION 113**

Refer to the exhibit.

```
Router A
RouterA#config t
RouterA(config)#router isis
RouterA(config-router)#net 49.0001.0000.0000.000a.00
RouterA(config-router)#exit
RouterA(config)#interface fastethernet 0/0
RouterA(config-if)

Router B
RouterB#config t
RouterB(config)#router isis
RouterB(config-router)#net 49.0001.0000.0000.000b.00
RouterB(config-router)#exit
RouterB(config)#interface fastethernet 1/0
RouterB(config-if)
```

A network engineer implemented these configurations. However, Intermediate System-to- Intermediate System (IS-IS) neighbors are unable to establish. What is the reason for this error?

- A. missing router IS-IS x command
- B. missing IP router IS-IS command
- C. missing network mask
- D. missing network statement
- E. missing MTU matching value

**Answer:** B

**NEW QUESTION 116**

Refer to the exhibit.

```
PE Configuration
vrf Customer10
 rd 100:301
  address-family ipv4 unicast

!
 neighbor 209.165.201.22
  remote-as 65101
  address-family ipv4 unicast
  as-override
```

A new customer is not receiving routes from the Provider Edge router. What command needs to be added to advertise routes?

- A. route-policy (route group) in
- B. route-policy (route group) out
- C. route-map (route group) in
- D. prefix-list (prefix-list) in
- E. prefix-list (prefix-list) out

**Answer: B**

#### NEW QUESTION 121

Refer to the exhibit.

```
Router# configure terminal
Router(config)# router bgp 100
Router(config-router)# network
209.165.200.224 mask 255.255.255.224
Router(config-router)# address-family ipv4
vrf vrf-cisco
Router(config-router-af)# neighbor
10.10.10.10 remote-as 10
Router(config-router-af)# neighbor
10.10.10.10 activate
Router(config-router-af)# end
Router# copy running-config startup-config
```

A network engineer configured BGP PE to CE neighbor sessions with the commands shown. What does 'address-family ipv4 vrf vrf-cisco' from the configuration allow?

- A. activates the advertisement of the IPv4 address family
- B. defines customer's routing context
- C. specifies a network and mask to announce in VRF-Cisco
- D. redistribute VRF-Cisco

**Answer: B**

#### NEW QUESTION 123

Refer to the configuration snippet below. A network engineer has been tasked with implementing a security policy that prevents subnet 209.165.202.128/27 from accessing web server 209.165.200.224. All users are now unable to access the web server. What command is missing from the access list configuration?

Configuration:

```
switch(config)#access-list 1 deny 209.165.202.128 0.0.0.31 209.165.200.224
switch(config)#interface FastEthernet 0/0
switch(config-if)# ip access-group 1 in
```

- A. switch(config-if)#ip access-group 1 out
- B. switch(config)#ip access-list 2 permit any any
- C. switch#ip access-list 2 permit any any
- D. switch(config)#ip access-list 1 permit any any

**Answer: D**

#### NEW QUESTION 124

On Cisco IOS-XR, which command is used to review previous configuration events committed on the router?

- A. show configuration history
- B. show configuration commit changes
- C. show configuration commit list
- D. show configuration commit failed

**Answer: C**

**NEW QUESTION 126**

What type of package is bootable on the Cisco ASR 1000 router running IOS-XE?

- A. boot package
- B. consolidated package
- C. sub-package
- D. supplemental package

**Answer: B**

**NEW QUESTION 127**

What package provides the software for the route processor in the IOS XE Software?

- A. RPIOS
- B. ESPBase
- C. RPCControl
- D. RPBase
- E. SIP SPA

**Answer: D**

**NEW QUESTION 130**

What feature of the Cisco ASR series enables service providers and enterprise customers to manage their network performance with respect to bandwidth, delay, jitter, and packet loss?

- A. power over ethernet
- B. quality of service architecture
- C. ip sla
- D. layer 3 capability

**Answer: B**

**NEW QUESTION 135**

Which IOS Software solution is used for transporting RFC 1918 networks via IPSec + GRE VPNs over the internet?

- A. Dynamic Multipoint VPN
- B. Group Encrypted Transport VPN
- C. IPS
- D. URL Filtering

**Answer: A**

**NEW QUESTION 137**

Select and Place:

Drag and drop the troubleshooting issue on the left to the appropriate OSI layer on the right.

high BER	Real	Layer 7
STP port in the "blocked" state		Layer 4
BGP neighbor in the "idle" state		Layer 3
FTP error		Layer 2
TCP sync issue		Layer 1

**Answer:**

**Explanation:**

Drag and drop the troubleshooting issue on the left to the appropriate OSI layer on the right.

high BER	Real	FTP error
STP port in the "blocked" state		TCP sync issue
BGP neighbor in the "idle" state		BGP neighbor in the "idle" state
FTP error		STP port in the "blocked" state
TCP sync issue		high BER

NEW QUESTION 142

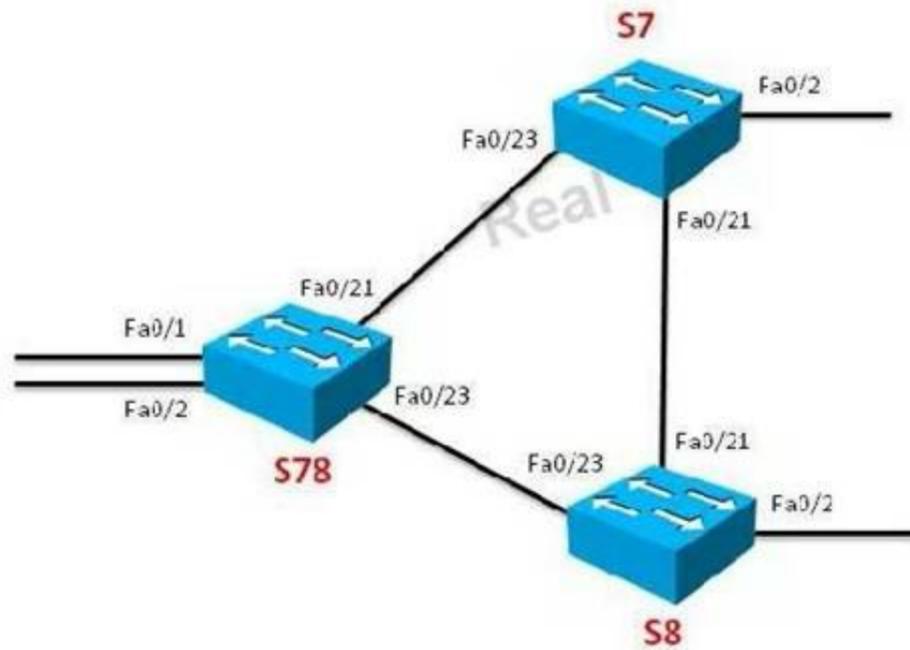
Instructions

- Enter the proper IOS CLI show commands and analysis the show outputs on the Cisco switches to answer the multiple-choice questions.
- Not all show commands or show commands options are supported or required for this simulation.
- THIS TASK DOES NOT REQUIRE DEVICE CONFIGURATION.
- From the Topology, click on the switch icon to gain access to the console of the switch. No console or enable passwords are required.
- To access the multiple-choice questions, click on the numbered boxes on the left of the top panel.
- There are four multiple-choice questions with this task. Be sure to answer all four questions before selecting the Next button.

Scenario

Refer to the topology diagram. Use the appropriate show commands on the Cisco switches to answer the multiple-choice questions.

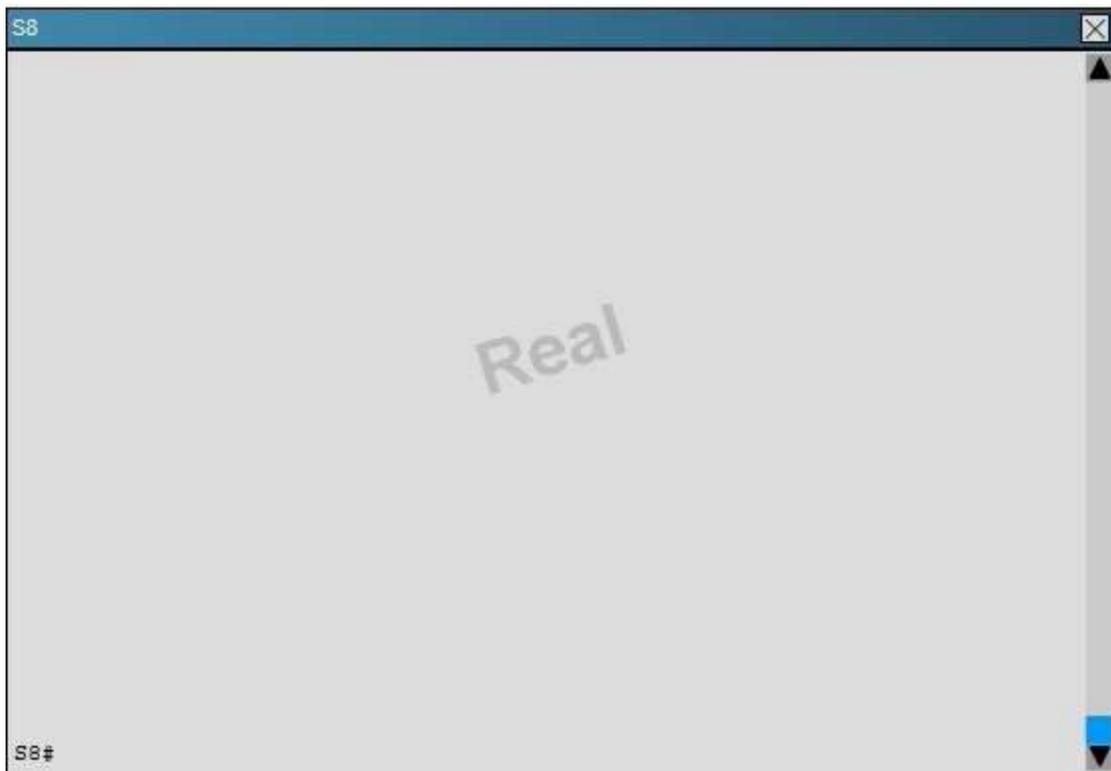
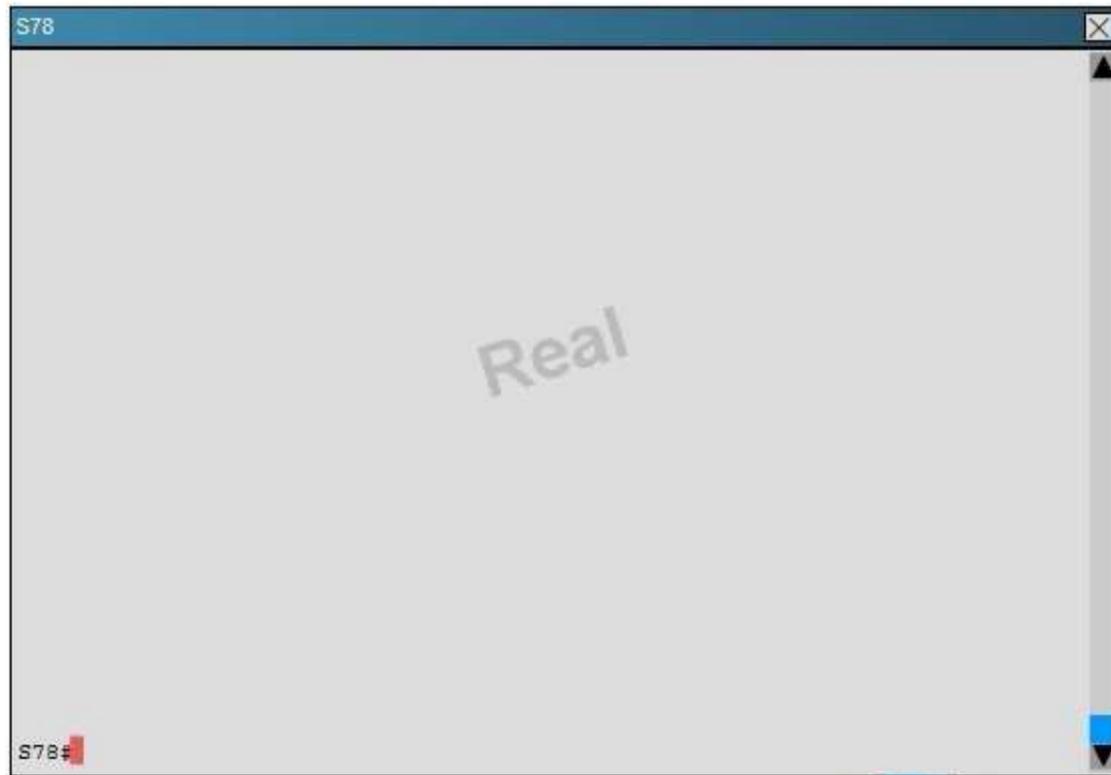
Topology



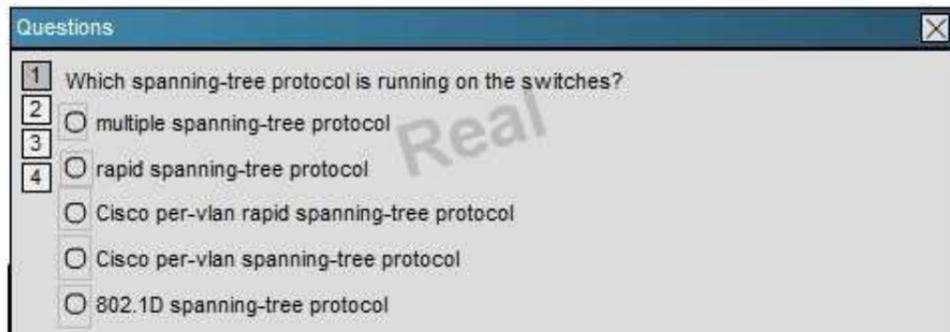
S7

Real

S7#



Hot Area:



**Answer:**

**Explanation:**

multiple spanning-tree protocol

Use the "show spanning-tree" command to see the "Spanning tree enabled protocol mstp" output.

**NEW QUESTION 147**

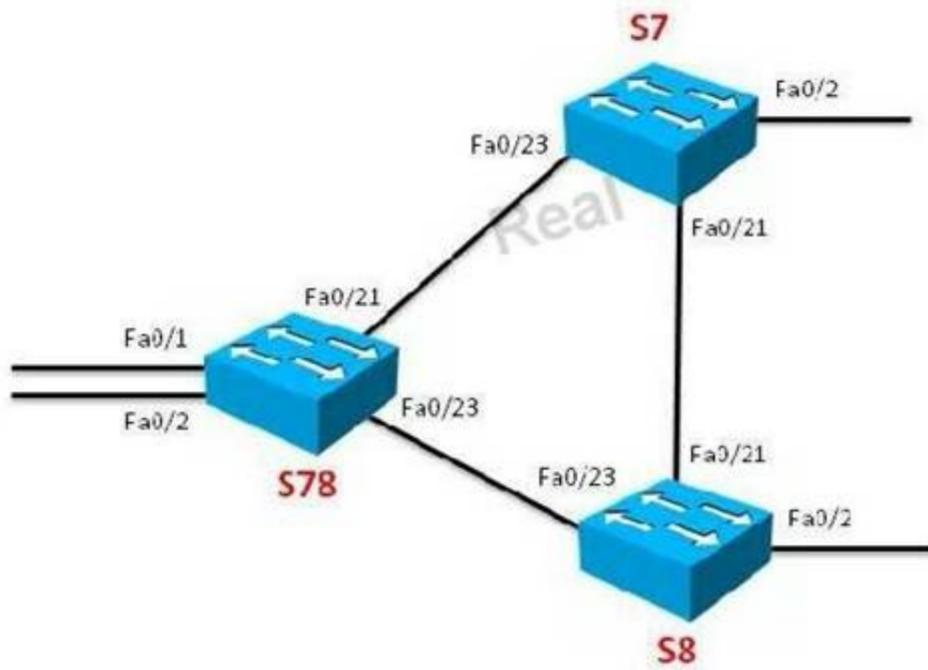
Instructions

- Enter the proper IOS CLI show commands and analysis the show outputs on the Cisco switches to answer the multiple-choice questions.
- Not all show commands or show commands options are supported or required for this simulation.
- THIS TASK DOES NOT REQUIRE DEVICE CONFIGURATION.
- From the Topology, click on the switch icon to gain access to the console of the switch. No console or enable passwords are required.
- To access the multiple-choice questions, click on the numbered boxes on the left of the top panel.
- There are four multiple-choice questions with this task. Be sure to answer all four questions before selecting the Next button.

Scenario

Refer to the topology diagram. Use the appropriate show commands on the Cisco switches to answer the multiple-choice questions.

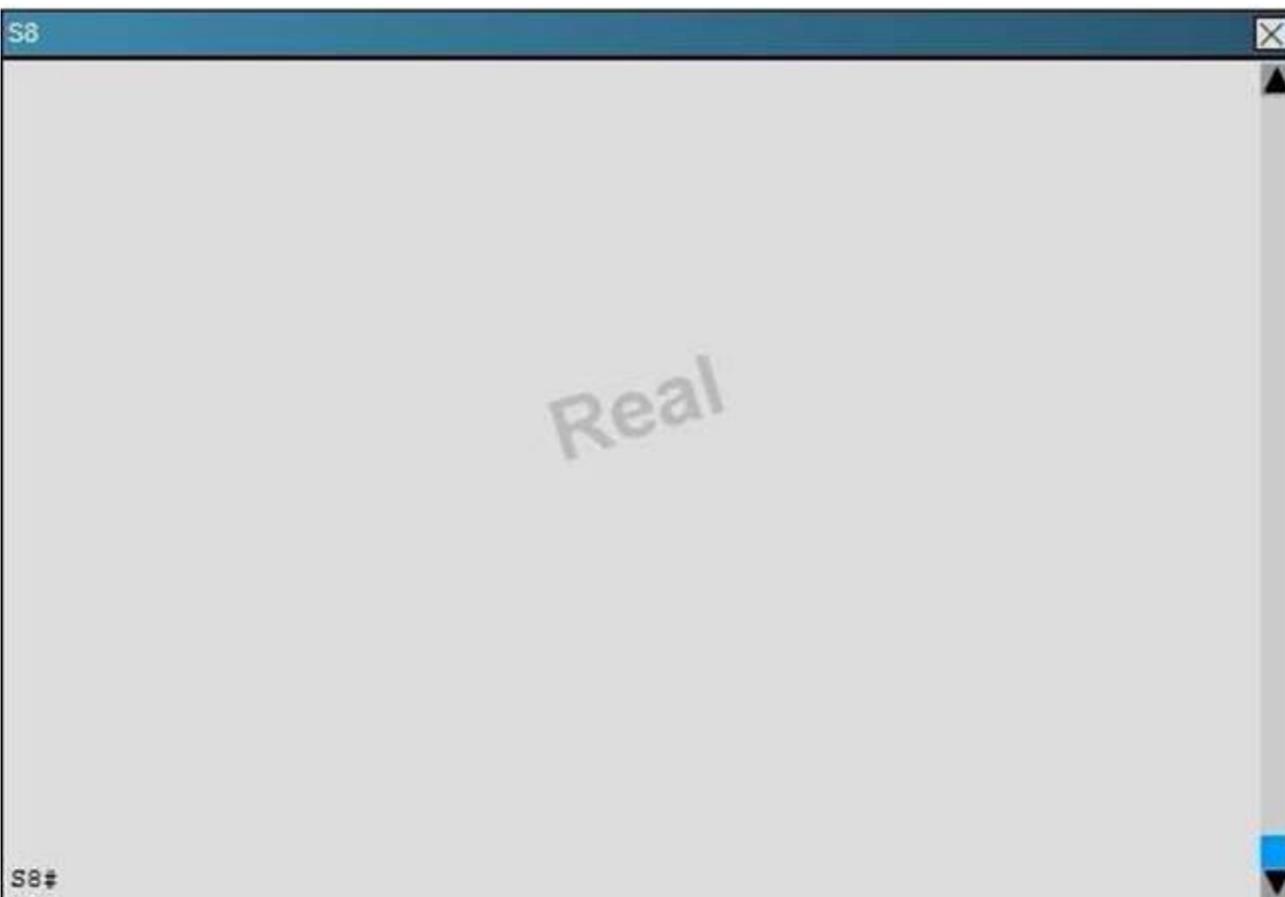
Topology



S7

Real

S7#



Hot Area:



**Answer:**

**Explanation:**

S78 port Fa0/23

Use the "show spanning-tree mst" command on each switch to find the port status that shows BLK for VLAN 70.

NEW QUESTION 149

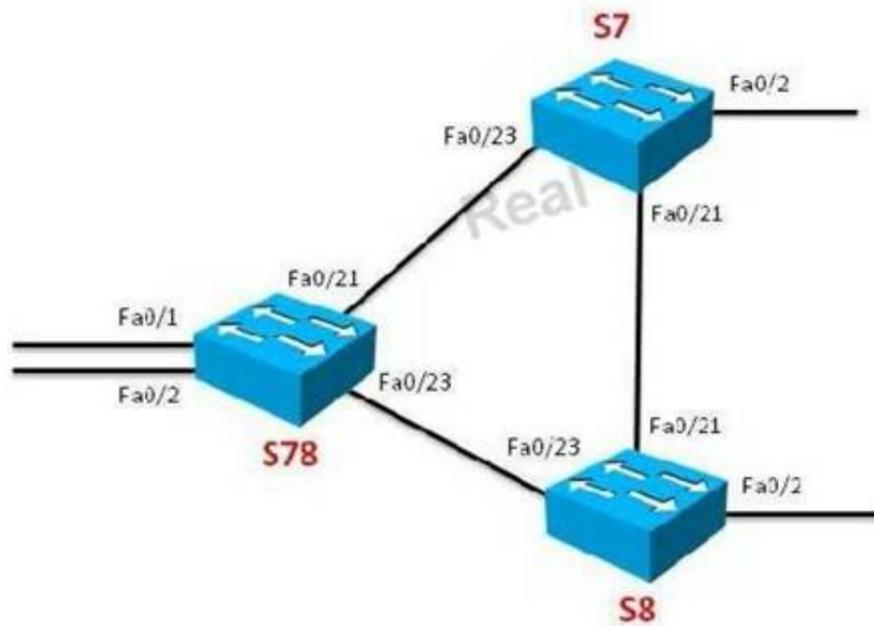
Instructions

- Enter the proper IOS CLI show commands and analysis the show outputs on the Cisco switches to answer the multiple-choice questions.
- Not all show commands or show commands options are supported or required for this simulation.
- THIS TASK DOES NOT REQUIRE DEVICE CONFIGURATION.
- From the Topology, click on the switch icon to gain access to the console of the switch. No console or enable passwords are required.
- To access the multiple-choice questions, click on the numbered boxes on the left of the top panel.
- There are four multiple-choice questions with this task. Be sure to answer all four questions before selecting the Next button.

Scenario

Refer to the topology diagram. Use the appropriate show commands on the Cisco switches to answer the multiple-choice questions.

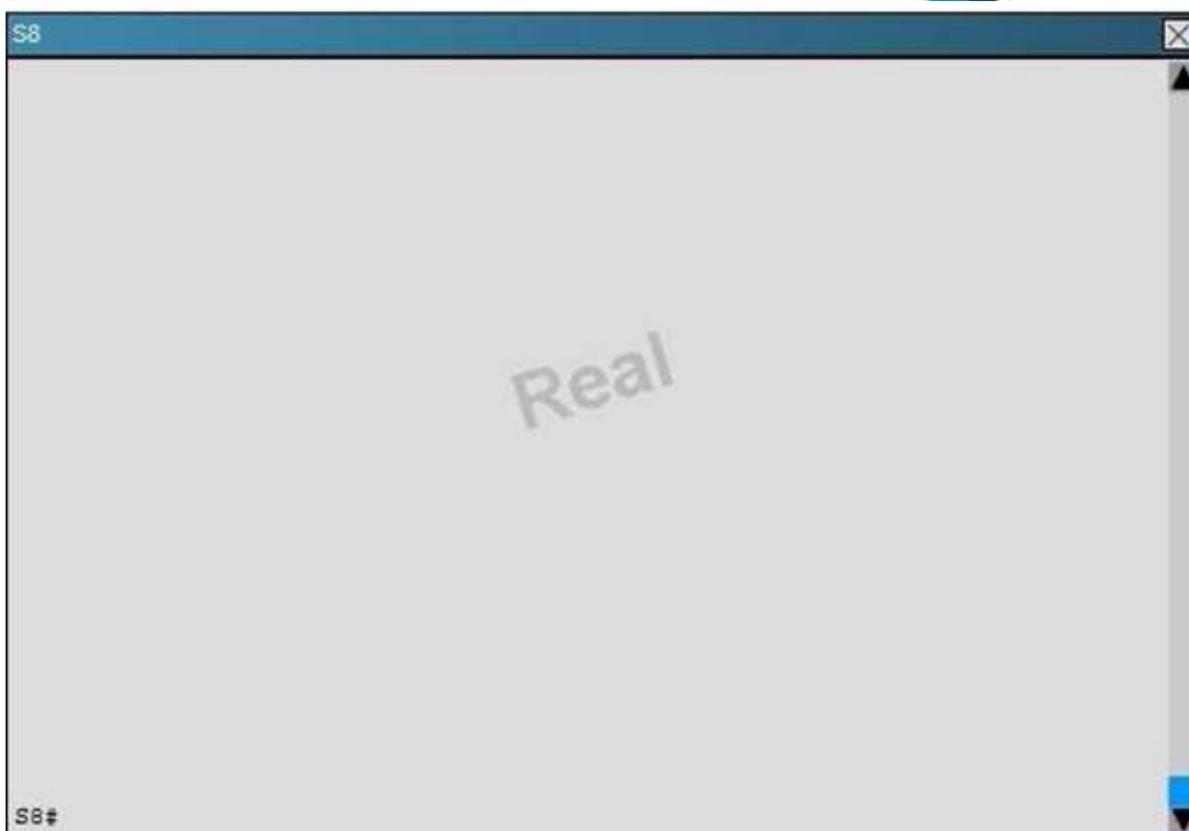
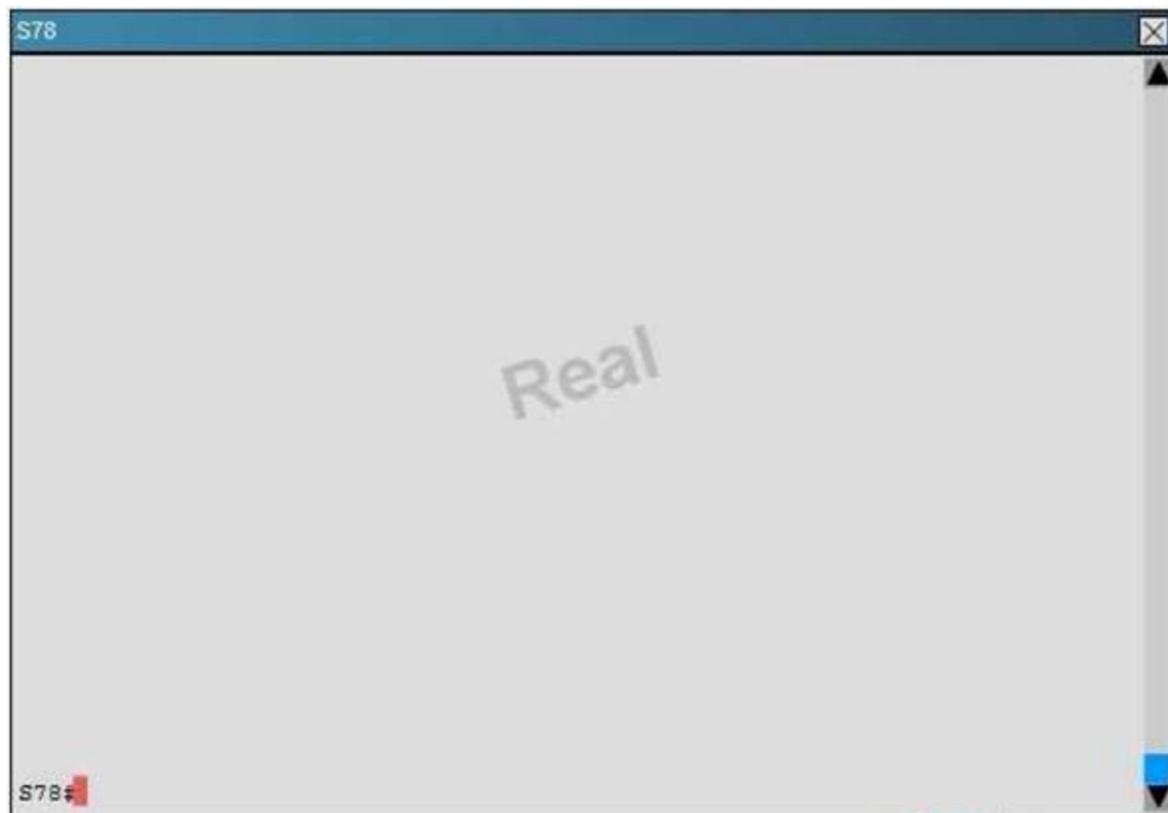
Topology



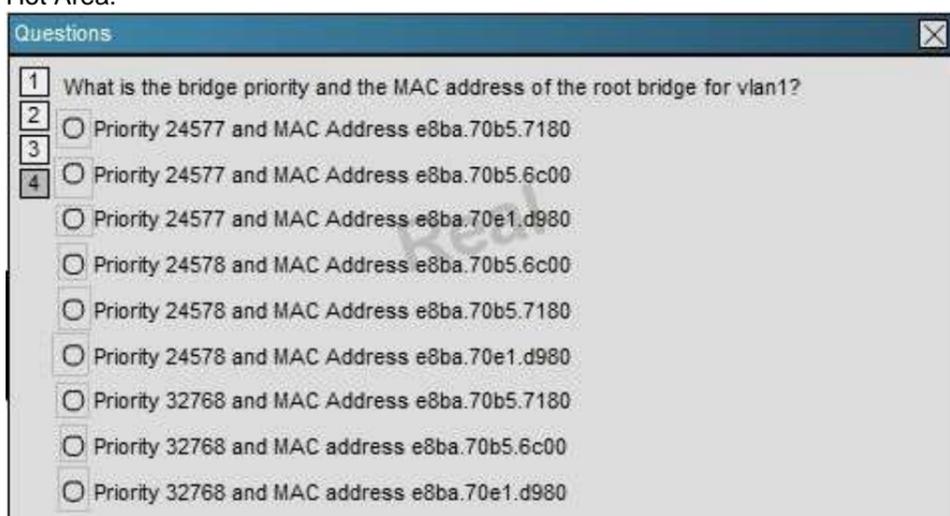
S7

Real

S7#



Hot Area:



Answer:

Explanation:

Priority 32768 and MAC address e8ba.70b5.6c00

Use the "show spanning-tree mst" command on each switch to find the root port and the priority.

**NEW QUESTION 152**

Which spanning-tree mode uses the name command to configure a region name?

A. MST

- B. PVST+
- C. PVRST+
- D. RSTP

**Answer:** A

**NEW QUESTION 154**

Which procedure is used as the last resort disaster recovery procedure to completely replace the currently installed IOS XR software on Cisco IOS XR routers?

- A. netboot
- B. turboboot
- C. install recovery
- D. install rollback
- E. install add and install activate

**Answer:** B

**Explanation:** [http://www.cisco.com/en/US/docs/routers/crs/software/crs\\_r4.0/migration/guide/tbugapp.pdf](http://www.cisco.com/en/US/docs/routers/crs/software/crs_r4.0/migration/guide/tbugapp.pdf)

**NEW QUESTION 156**

Refer to the exhibit.

```
ipv4 access-list FILTER
10 permit tcp any 192.168.15.32 0.0.0.15 eq www
20 deny ipv4 any 192.168.15.32 0.0.0.15
30 permit ipv4 any any
```

The access list has been configured on the Gi0/0/0/0 interface in the inbound direction. Which four packets that are sourced from 10.1.1.1 TCP port 1060, if they are routed to the Gi0/0/0/0 interface, will be permitted? (Choose four)

- A. destination IP address: 192.168.15.37, destination TCP port: 8080
- B. destination IP address: 192.168.15.41, destination TCP port: 8080
- C. destination IP address: 192.168.15.49, destination TCP port: 8080
- D. destination IP address: 192.168.15.36, destination TCP port: 80
- E. destination IP address: 192.168.15.46, destination TCP port: 80
- F. destination IP address: 192.168.15.49, destination TCP port: 80

**Answer:** CDEF

**NEW QUESTION 159**

Which two statements about NAT64 are true? (Choose two.)

- A. NAT64 packets traverse two IPv4 addressing domains.
- B. NAT64 packets are translated two times.
- C. There are two types of NAT64 (stateful or stateless).
- D. NAT is performed by the CPE and also by the service provider edge router.
- E. The DNS64 server embeds the IPv4 address from the DNS A record with a preconfigured IPv6 translation prefix.

**Answer:** CE

**Explanation:** [http://www.cisco.com/en/US/prod/collateral/iosswrel/ps6537/ps6553/white\\_paper\\_c11-676278.html](http://www.cisco.com/en/US/prod/collateral/iosswrel/ps6537/ps6553/white_paper_c11-676278.html)

All viable translation scenarios are supported by NAT64, and therefore NAT64 is becoming the most sought translation technology. AFT using NAT64 technology can be achieved by either stateless or stateful means:

- Stateless NAT64, defined in RFC 6145, is a translation mechanism for algorithmically mapping IPv6 addresses to IPv4 addresses, and IPv4 addresses to IPv6 addresses. Like NAT44, it does not maintain any bindings or session state while performing translation, and it supports both IPv6-initiated and IPv4-initiated communications.
- Stateful NAT64, defined in RFC 6146, is a stateful translation mechanism for translating IPv6 addresses to IPv4 addresses, and IPv4 addresses to IPv6 addresses. Like NAT44, it is called stateful because it creates or modifies bindings or session state while performing translation. It supports both IPv6-initiated and IPv4-initiated communications using static or manual mappings. DNS64, an optional component defined in RFC 6147, when used in conjunction with NAT64, would trick the IPv6 hosts into thinking that the IPv4 destination as an IPv6 address, by synthesizing AAAA (quad A) resource records from A resource records.

**NEW QUESTION 163**

Refer to the exhibit.

```
ipv4 access-list FILTER
10 deny tcp any 10.10.192.0 0.0.3.255 eq telnet
20 permit ipv4 any 10.10.192.0 0.0.3.255
30 deny ipv4 any any
```

The access list has been configured on the Gi0/0/0/0 interface in the inbound direction. Which two packets that are sourced from 172.16.1.1 TCP port 1050, if they are routed to the Gi0/0/0/0 interface, will be permitted? (Choose two)

- A. destination IP address: 10.10.192.201, destination TCP port: 80
- B. destination IP address: 10.10.193.255, destination TCP port: 80
- C. destination IP address: 10.10.196.1, destination TCP port: 80
- D. destination IP address: 10.10.195.254, destination TCP port: 23
- E. destination IP address: 10.10.193.145, destination TCP port: 23

F. destination IP address: 10.10.197.32, destination TCP port: 23

**Answer:** AB

**NEW QUESTION 168**

On Cisco IOS XR software, how is LDP enabled on an interface?

- A. LDP is automatically enabled globally on all interfaces, when ip cef is enabled globally.
- B. LDP is enabled on each interface, using the mpls ip interface configuration command.
- C. LDP is enabled on each interface, using the interface command under mpls ldp (MPLS LDP configuration mode).
- D. LDP is enabled globally on all interfaces, using the mpls ldp global configuration command.
- E. LDP is enabled globally on all interfaces, using the mpls ip global configuration command.

**Answer:** C

**Explanation:**

[http://www.cisco.com/en/US/docs/ios-xml/ios/mp\\_ldp/configuration/12-4m/mp-ldp-12-4m-book.pdf](http://www.cisco.com/en/US/docs/ios-xml/ios/mp_ldp/configuration/12-4m/mp-ldp-12-4m-book.pdf)

The following example shows how to enter mpls ldp submode:

```
RP/0/RP0/CPU0:router# config
```

```
RP/0/RP0/CPU0:router(config)# mpls ldp
```

```
RP/0/RP0/CPU0:router(config-ldp)#
```

**Related Commands**

Command	Description
<a href="#">interface (MPLS LDP)</a>	Configures or enables MPLS LDP on an interface.

**NEW QUESTION 169**

Which first-hop router redundancy protocol uses the active virtual gateway to assign a virtual MAC address to the active virtual forwarders?

- A. HSRP
- B. VRRP
- C. GLBP
- D. FHRP

**Answer:** C

**Explanation:** [http://www.cisco.com/en/US/docs/ios/12\\_2t/12\\_2t15/feature/guide/ft\\_glbp.html](http://www.cisco.com/en/US/docs/ios/12_2t/12_2t15/feature/guide/ft_glbp.html)

**NEW QUESTION 172**

Refer to the Cisco IOS XR commands exhibit.

```
RP/0/RSP0/CPU0:PE7#install activate disk0:asr9k-video-p-4.1.0
^
% Invalid input detected at '^' marker.
RP/0/RSP0/CPU0:PE7#show user all
Tue Sep 20 21:39:00.331 UTC
Username: admin
Groups: root-system
<output omitted>
```

The router administrator is trying to activate a software package on the router but is not able to do so. Which statement about this problem is true?

- A. The router needs to be in the global configuration mode.
- B. The router needs to be in the admin global configuration mode.
- C. The router needs to be in the admin EXEC mode.
- D. The install activate command is not the correct command to use.
- E. The administrator needs to log in as the "root" user instead of the "admin" user.

**Answer:** C

**Explanation:** [http://www.cisco.com/en/US/docs/ios\\_xr\\_sw/iosxr\\_r2.0/getting\\_started/installation/guide/gs\\_pack.pdf](http://www.cisco.com/en/US/docs/ios_xr_sw/iosxr_r2.0/getting_started/installation/guide/gs_pack.pdf)

<p><b>install activate <i>device:package</i></b></p> <p><b>Example:</b></p> <pre>RP/0/RP0/CPU0:router# install activate disk0:hfr-k9sec-1.0.0</pre>	<p>Activates the package functionality on the router.</p> <ul style="list-style-type: none"> <li>• In a package upgrade scenario, the newer version of the package will be activated, and the older version will be automatically deactivated.</li> <li>• In a package downgrade scenario, the older version of the package will be activated and the newer version will be automatically deactivated.</li> <li>• Actual activation is done after package compatibility checks have all passed.</li> </ul>
---	--

**NEW QUESTION 176**

Refer to the exhibit.

Media

```
RP/0/RSP0/CPU0:P1# show mpls ldp forwarding
```

Prefix	Label In	Label Out	Outgoing Interface	Next Hop	GR	Stale
192.168.102.0/24	16003	ImpNull	Gi0/0/0/1	192.168.112.40	N	N
10.2.10.1/32	16010	22	Gi0/0/0/1	192.168.112.40	N	N
10.10.10.100/32	16006	Unlabelled	None	10.10.10.1	N	N

<output omitted>

Which three statements about MPLS LDP operations are true?

- A. The incoming label for 10.2.10.1/32 is 16010 (which is allocated by the local router), and the outgoing label is 22 (as advertised by the next-hop router).
- B. The 16003 and 16010 labels are learned from the 192.168.112.40 LDP neighbor.
- C. The ImpNull outgoing label for the 192.168.102.0/24 network means that the outgoing label should be removed when sending packets to the 192.168.112.40 next-hop router, when the incoming label is 16003.
- D. The ImpNull outgoing label for the 192.168.102.0/24 network means that the local router has not received a label for that network from its neighbor.
- E. The Unlabeled outgoing label for 10.10.10.100/32 indicates that a label pop is required when sending packets to the 10.10.10.1 next-hop router.
- F. The outgoing label of 22 for 10.2.10.1/32 is learned from the 192.168.112.40 LDP neighbor.

**Answer:** ACF

**Explanation:** [http://www.cisco.com/en/US/docs/ios/12\\_2t/12\\_2t2/feature/guide/ldp\\_221t.html](http://www.cisco.com/en/US/docs/ios/12_2t/12_2t2/feature/guide/ldp_221t.html)

**NEW QUESTION 178**

Select and Place:

Drag and drop the OSPF configurations on the left to the correct IOS XR or IOS XE box on the right.

The correct OSPF configurations on the left should enable OSPF for IPv6 routing using an OSPF process ID of 1 and an OSPF router ID of 10.1.1.1. The configurations should enable the Gi0/0/0 interface (with an IPv6 address of 2001:DB8:192:168:101::11/80) to be in area 0. IPv6 unicast routing has already been enabled globally, and IPv6 has been enabled on the Gi0/0/0 interface.

```
router ospf 1
router-id 10.1.1.1
network 2001:DB8:192:168:101::11/80 area 0
```

```
ipv6 router ospf 1
router-id 10.1.1.1
interface gi0/0/0
ipv6 ospf 1 area 0
```

```
router ospfv3 1
router-id 10.1.1.1
area 0
interface gi0/0/0
```

```
router ospf 1
router-id 10.1.1.1
address-family ipv6 unicast
area 0
interface gi0/0/0
```

Real

Cisco IOS XE

Cisco IOS XR

**Answer:**

**Explanation:**

Drag and drop the OSPF configurations on the left to the correct IOS XR or IOS XE box on the right.

The correct OSPF configurations on the left should enable OSPF for IPv6 routing using an OSPF process ID of 1 and an OSPF router ID of 10.1.1.1. The configurations should enable the Gi0/0/0 interface (with an IPv6 address of 2001:DB8:192:168:101::11/80) to be in area 0. IPv6 unicast routing has already been enabled globally, and IPv6 has been enabled on the Gi0/0/0 interface.

```
router ospf 1
router-id 10.1.1.1
network 2001:DB8:192:168:101::11/80 area 0
```

```
ipv6 router ospf 1
router-id 10.1.1.1
interface gi0/0/0
ipv6 ospf 1 area 0
```

```
router ospfv3 1
router-id 10.1.1.1
area 0
interface gi0/0/0
```

```
router ospf 1
router-id 10.1.1.1
address-family ipv6 unicast
area 0
interface gi0/0/0
```

Real

```
ipv6 router ospf 1
router-id 10.1.1.1
interface gi0/0/0
ipv6 ospf 1 area 0
```

```
router ospfv3 1
router-id 10.1.1.1
area 0
interface gi0/0/0
```

**NEW QUESTION 179**

Select and Place:

Drag and drop the IS-IS router type on the left to its correct description on the right.

Level 1 routers

Level 1-2 routers

Level 2 routers

Real

learn paths between areas

learn paths within the area they connect to and between areas

learn paths within the area they connect to

**Answer:**

**Explanation:**

Drag and drop the IS-IS router type on the left to its correct description on the right.

Level 1 routers	Real	Level 2 routers
Level 1-2 routers		Level 1-2 routers
Level 2 routers		Level 1 routers

**NEW QUESTION 183**

Select and Place:

Drag and drop the Cisco IOS XR show commands on the left to the best use of the command on the right.

show cef	Real	displays the content of the FIB
show mpls ldp bindings		displays the LDP status
show mpls ldp forwarding		displays the content of the LIB
show mpls ldp neighbors		displays the content of the LFIB

**Answer:**

**Explanation:**

Drag and drop the Cisco IOS XR show commands on the left to the best use of the command on the right.

show cef	Real	show cef
show mpls ldp bindings		show mpls ldp neighbors
show mpls ldp forwarding		show mpls ldp bindings
show mpls ldp neighbors		show mpls ldp forwarding

**NEW QUESTION 186**

Which three statements about OSPFv2 or OSPFv3 authentication are true? (Choose three.)

- A. On Cisco IOS XR platforms, OSPFv3 authentication can be configured at the OSPF routing process, area, or interface level.
- B. OSPF authentication on Cisco IOS and IOS XE platforms can be configured per area or per interface.
- C. On Cisco IOS and IOS XE and IOS XR platforms, the authentication key can only be configured per interface.
- D. OSPFv3 uses IPsec for authentication and encryption.
- E. On Cisco IOS XR platforms, the OSPF authentication that is configured for the area overrides the authentication that is configured for the interface.
- F. On Cisco IOS and IOS XE platforms, the two OSPFv2 authentication methods that are supported are MD5 and SHA1.

**Answer:** ABD

**Explanation:** [http://www.cisco.com/en/US/docs/ios\\_xr\\_sw/iosxr\\_r3.7/routing/configuration/guide/rc37ospf.html](http://www.cisco.com/en/US/docs/ios_xr_sw/iosxr_r3.7/routing/configuration/guide/rc37ospf.html)

**NEW QUESTION 189**

Which statement is true about enabling IS-IS routing and using the net command to configure the NSAP address?

- A. NSAP addresses have a fixed size of 20 bytes.
- B. The NSEL must always be 00 to identify the router.
- C. The area address follows the system ID field before the NSEL field.
- D. An AFI of 39 indicates that the AFI is a locally administered private address.

**Answer:** B

**Explanation:** [http://www.cisco.com/en/US/tech/tk365/technologies\\_white\\_paper09186a00800a3e6f.shtml](http://www.cisco.com/en/US/tech/tk365/technologies_white_paper09186a00800a3e6f.shtml)

**NEW QUESTION 193**

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