



Cisco

Exam Questions 640-878

SPNGN2 Building Cisco Service Provider Next-Generation Networks, Part 2

NEW QUESTION 1

Refer to the two show output examples below. The switch with the e8ba.70b5.7180 MAC address is the root bridge for which VLAN or VLANs?

S78#show spanning-tree

MST0

Spanning tree enabled protocol mstp

Root ID Priority 32768
 Address e8ba.70b5.6c00
 Cost 0
 Port 23 (FastEthernet0/21)
 Hello Time 2 sec Max Age 20 sec Forward Delay 15 sec
 Bridge ID Priority 32768 (priority 32768 sys-id-ext 0)
 Address e8ba.70e1.d980
 Hello Time 2 sec Max Age 20 sec Forward Delay 15 sec

Interface	Role	Sts	Cost	Prio.Nbr	Type
Fa0/1	Desg	FWD	200000	128.3	P2p
Fa0/2	Desg	FWD	200000	128.4	P2p
Fa0/21	Root	FWD	200000	128.23	P2p
Fa0/23	Altn	BLK	200000	128.25	P2p

MST1

Spanning tree enabled protocol mstp

Root ID Priority 24577
 Address e8ba.70b5.6c00
 Cost 200000
 Port 23 (FastEthernet0/21)
 Hello Time 2 sec Max Age 20 sec Forward Delay 15 sec
 Bridge ID Priority 32769 (priority 32768 sys-id-ext 1)
 Address e8ba.70e1.d980
 Hello Time 2 sec Max Age 20 sec Forward Delay 15 sec

Interface	Role	Sts	Cost	Prio.Nbr	Type
Fa0/1	Desg	FWD	200000	128.3	P2p
Fa0/21	Root	FWD	200000	128.23	P2p
Fa0/23	Altn	BLK	200000	128.25	P2p

MST2

Spanning tree enabled protocol mstp

Root ID Priority 24578
 Address e8ba.70b5.7180
 Cost 200000
 Port 25 (FastEthernet0/23)
 Hello Time 2 sec Max Age 20 sec Forward Delay 15 sec
 Bridge ID Priority 32770 (priority 32768 sys-id-ext 2)
 Address e8ba.70e1.d980

Interface	Role	Sts	Cost	Prio.Nbr	Type
Fa0/2	Desg	FWD	200000	128.4	P2p
Fa0/21	Altn	BLK	200000	128.23	P2p
Fa0/23	Root	FWD	200000	128.25	P2p

S78# show spanning-tree mst

```
##### MST0  vlans mapped: 1-69,71-79,81-4094
Bridge  address e8ba.70e1.d980 priority 32768 (32768 sysid 0)
Root    address e8ba.70b5.6c00 priority 32768 (32768 sysid 0)
        port Fa0/21      path cost 0
Regional Root address e8ba.70b5.6c00 priority 32768 (32768 sysid 0)
        internal cost 200000 rem hops 19
Operational hello time 2, forward delay 15, max age 20, txholdcount 6
Configured  hello time 2, forward delay 15, max age 20, max hops 20
```

Interface	Role	Sts	Cost	Prio.Nbr	Type
Fa0/1	Desg	FWD	200000	128.3	P2p
Fa0/2	Desg	FWD	200000	128.4	P2p
Fa0/21	Root	FWD	200000	128.23	P2p
Fa0/23	Altn	BLK	200000	128.25	P2p

```
##### MST1  vlans mapped: 70
Bridge  address e8ba.70e1.d980 priority 32769 (32768 sysid 1)
Root    address e8ba.70b5.6c00 priority 24577 (24576 sysid 1)
        port Fa0/21      cost 200000 rem hops 19
```

Interface	Role	Sts	Cost	Prio.Nbr	Type
Fa0/1	Desg	FWD	200000	128.3	P2p
Fa0/21	Root	FWD	200000	128.23	P2p
Fa0/23	Altn	BLK	200000	128.25	P2p

```
##### MST2  vlans mapped: 80
Bridge  address e8ba.70e1.d980 priority 32770 (32768 sysid 2)
Root    address e8ba.70b5.7180 priority 24578 (24576 sysid 2)
        port Fa0/23      cost 200000 rem hops 19
```

Interface	Role	Sts	Cost	Prio.Nbr	Type
Fa0/2	Desg	FWD	200000	128.4	P2p
Fa0/21	Altn	BLK	200000	128.23	P2p
Fa0/23	Root	FWD	200000	128.25	P2p

- A. VLAN 1
- B. VLAN 70
- C. VLAN 80
- D. VLANs 1, 70, and 80
- E. VLANs 1 and 70
- F. VLANs 1 and 80
- G. VLANs 70 and 80

Answer: C

NEW QUESTION 2

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

NEW QUESTION 3

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.
tmsys:	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 4

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 5

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 6

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 7

Which statement about Cisco IOS XE software is true?

- A. It uses a two-stage configuration process.
- B. It is identical in look and feel to Cisco IOS software.

- C. It runs on the Cisco ASR 9010 platform.
- D. Packages can be added using the install add and install activate commands.
- E. It runs on the Cisco ME 3400 platform.

Answer: B

Explanation:

http://www.cisco.com/en/US/prod/collateral/iosswrel/ps9442/ps11192/ps11194/QA_C67-622903.html

The IOS feature set for routing and switching is unmatched in the industry, delivering functionality required for business critical applications. Preserving these advantages of IOS to our customers is critical for Cisco. IOS XE retains the exact same look and feel of IOS, while providing enhanced future-proofing and improved functionality. In IOS XE, IOS 15.0 runs as a single daemon within a modern Linux operating system. Additional system functions now run as additional, separate processes in the host OS environment. The operation, support and management of IOS XE does not require re-training from classic IOS.

NEW QUESTION 8

A network administrator is troubleshooting an issue whereupon they able to ping the web server, but unable to web browse to the same web server. When the administrator telnets to the webserver on port 80, the administrator gets a connection refused message. At which three layers of the OSI model does the problem exist? (Choose three.)

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

Answer: DEG

NEW QUESTION 9

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 10

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 11

What does the command 'rep admin vlan 100' accomplish?

- A. confines flooding of REP messages to VLAN 100
- B. reserves REP admin VLAN to 100 so that no REP messages are sent on VLAN 100
- C. forces VLAN 100 into a REP block state
- D. this is an invalid command

Answer: A

NEW QUESTION 12

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 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 13

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 14

A customer has installed a second router and copied the configuration from the first router, as shown below. What change is needed to ensure that router 1 is the primary IP address?

```
Router 1
standby 1 priority 110
standby 1 preempt
Router 2
standby 1 priority 120
standby 1 preempt
```

- A. decrease the priority on router 2 to 109
- B. decrease the priority on router 1 to 109
- C. remove standby 1 preempt from router 1
- D. increase the priority on router 2 to 130
- E. increase the priority on router 1 to 119

Answer: A

NEW QUESTION 15

Which Cisco IOS-XR command is used to unpack a package on the local router?

- A. install boot
- B. install commit
- C. install add
- D. install package

Answer: C

NEW QUESTION 16

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 17

Select and Place:

Drag and drop the RSTP port roles on the left to the correct description on the right.

root	Real	a forwarding port for the LAN segment
designated		a port that provides a redundant path to the LAN segment where another bridge port already connects
alternate		a forwarding port that is the best port from the non-root bridge to the root bridge
backup		a port that provides another path to the root bridge that is different than the path through the root port

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

Place the options in order from top to bottom: designated
 backup root alternate

NEW QUESTION 18

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

NEW QUESTION 19

Cisco IP NGN service providers can offer multiple services to their customers by using which type of technology in their core networks?

- A. ATM
- B. SONET/SDH
- C. Frame Relay
- D. IP/MPLS
- E. PBB

Answer: D

NEW QUESTION 20

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

NEW QUESTION 21

.....

Thank You for Trying Our Product

We offer two products:

1st - We have Practice Tests Software with Actual Exam Questions

2nd - Questions and Answers in PDF Format

640-878 Practice Exam Features:

- * 640-878 Questions and Answers Updated Frequently
- * 640-878 Practice Questions Verified by Expert Senior Certified Staff
- * 640-878 Most Realistic Questions that Guarantee you a Pass on Your FirstTry
- * 640-878 Practice Test Questions in Multiple Choice Formats and Updatesfor 1 Year

100% Actual & Verified — Instant Download, Please Click
[Order The 640-878 Practice Test Here](#)