



Cisco

Exam Questions 200-301

Cisco Certified Network Associate

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NEW QUESTION 1

- (Exam Topic 2)

Refer to the exhibit.

```

Designated Router (ID) 10.11.11.11, Interface address 10.10.10.1
Backup Designated router (ID) 10.3.3.3, Interface address 10.10.10.3
Timer intervals configured, Hello 10, Dead 40, Wait 40, Retransmit 5
oob-resync timeout 40
Hello due in 00:00:08
Supports Link-local Signaling (LLS)
Cisco NSF helper support enabled
IETF NSF helper support enabled
Index 1/1/1, flood queue length 0
Next 0x0(0)/0x0(0)/0x0(0)
Last flood scan length is 1, maximum is 6
Last flood scan time is 0 msec, maximum is 1 msec
Neighbor Count is 3, Adjacent neighbor count is 3
Adjacent with neighbor 10.1.1.4
Adjacent with neighbor 10.2.2.2
Adjacent with neighbor 10.3.3.3 (Backup Designated Router)
Suppress hello for 0 neighbor(s)
    
```

The show ip ospf interface command has been executed on R1 How is OSPF configured?

- A. The interface is not participating in OSPF
- B. A point-to-point network type is configured
- C. The default Hello and Dead timers are in use
- D. There are six OSPF neighbors on this interface

Answer: C

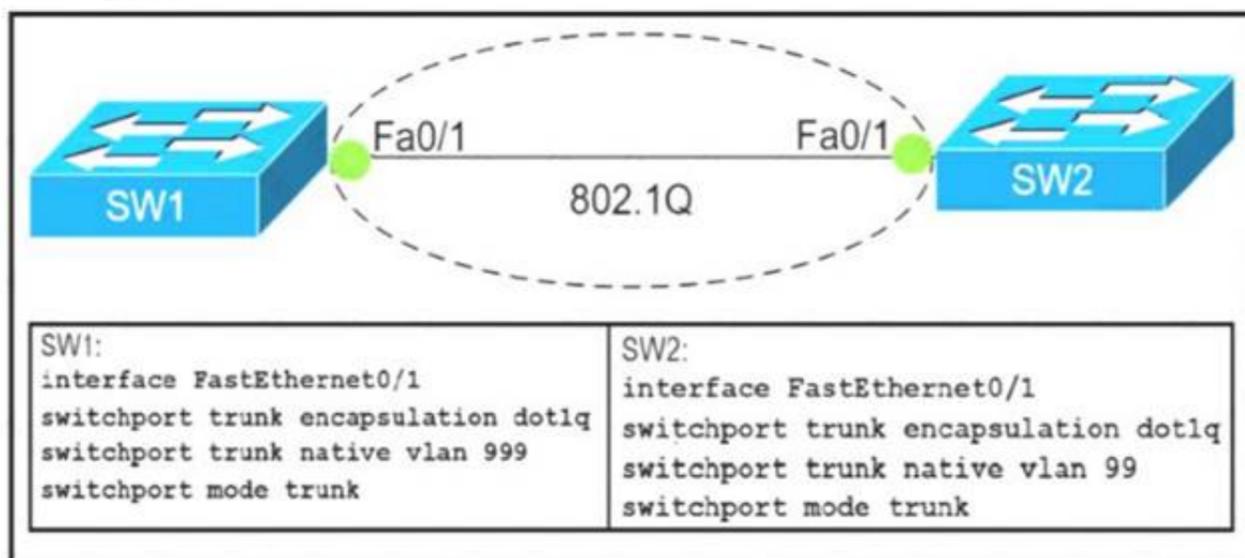
Explanation:

<https://www.cisco.com/c/en/us/support/docs/ip/open-shortest-path-first-ospf/13689-17.html>

NEW QUESTION 2

- (Exam Topic 2)

Refer to Exhibit.



Which action do the switches take on the trunk link?

- A. The trunk does not form and the ports go into an err-disabled status.
- B. The trunk forms but the mismatched native VLANs are merged into a single broadcast domain.
- C. The trunk does not form, but VLAN 99 and VLAN 999 are allowed to traverse the link.
- D. The trunk forms but VLAN 99 and VLAN 999 are in a shutdown state.

Answer: B

Explanation:

The trunk still forms with mismatched native VLANs and the traffic can actually flow between mismatched switches. But it is absolutely necessary that the native VLANs on both ends of a trunk link match; otherwise a native VLAN mismatch occurs, causing the two VLANs to effectively merge. For example with the above configuration, SW1 would send untagged frames for VLAN 999. SW2 receives them but would think they are for VLAN 99 so we can say these two VLANs are merged.

NEW QUESTION 3

- (Exam Topic 2)

Refer to the exhibit.

```
Switch(config)#hostname R1
R1(config)#interface FastEthernet0/1
R1(config-if)#no switchport
R1(config-if)#ip address 10.100.20.42 255.255.255.0
R1(config-if)#line vty 0 4
R1(config-line)#login
```

An engineer booted a new switch and applied this configuration via the console port. Which additional configuration must be applied to allow administrators to authenticate directly to enable privilege mode via Telnet using a local username and password?

```
R1(config)#username admin privilege 15 secret p@ss1234
R1(config-if)#line vty 0 4
R1(config-line)#login local
```

```
R1(config)#username admin secret p@ss1234
R1(config-if)#line vty 0 4
R1(config-line)#login local
R1(config)#enable secret p@ss1234
```

```
R1(config)#username admin
R1(config-if)#line vty 0 4
R1(config-line)#password p@ss1234
R1(config-line)#transport input telnet
```

```
R1(config)#username admin
R1(config-if)#line vty 0 4
R1(config-line)#password p@ss1234
```

- A. Option A
- B. Option B
- C. Option C
- D. Option D

Answer: A

NEW QUESTION 4

- (Exam Topic 2)

Router A learns the same route from two different neighbors, one of the neighbor routers is an OSPF neighbor and the other is an EIGRP neighbor. What is the administrative distance of the route that will be installed in the routing table?

- A. 20
- B. 90
- C. 110
- D. 115

Answer: B

Explanation:

The Administrative distance (AD) of EIGRP is 90 while the AD of OSPF is 110 so EIGRP route will be chosen to install into the routing table.

NEW QUESTION 5

- (Exam Topic 2)

Refer to the exhibit.

```
SW1#sh lacp neighbor
Flags: S - Device is requesting Slow LACPDUs
      F - Device is requesting Fast LACPDUs
      A - Device is in Active mode      P - Device is in Passive mode

Channel group 35 neighbors

Partner's information:

Port      LACP port      Admin Oper  Port  Port
Port      Flags  Priority  Dev ID      Age  key  Key  Number  State
Et1/0     SP     32768    aabb.cc80.7000  8s  0x0  0x23  0x101  0x3C
Et1/1     SP     32768    aabb.cc80.7000  8s  0x0  0x23  0x102  0x3C
```

Based on the LACP neighbor status, in which mode is the SW1 port channel configured?

- A. passive
- B. mode on

- C. auto
- D. active

Answer: D

Explanation:

From the neighbor status, we notice the "Flags" are SP. "P" here means the neighbor is in Passive mode. In order to create an Etherchannel interface, the (local) SW1 ports should be in Active mode. Moreover, the "Port State" in the exhibit is "0x3c" (which equals to "00111100 in binary format). Bit 3 is "1" which means the ports are synchronizing -> the ports are working so the local ports should be in Active mode.

NEW QUESTION 6

- (Exam Topic 2)

An engineer is configuring NAT to translate the source subnet of 10.10.0.0/24 to any of three addresses 192.168.30.1, 192.168.3.2, 192.168.3.3 Which configuration should be used?

- enable
configure terminal
ip nat pool mypool 192.168.3.1 192.168.3.3 prefix-length 30
route-map permit 10.10.0.0 255.255.255.0
ip nat outside destination list 1 pool mypool
interface g1/1
ip nat inside
interface g1/2
ip nat outside
- enable
configure terminal
ip nat pool mypool 192.168.3.1 192.168.3.3 prefix-length 30
access-list 1 permit 10.10.0.0 0.0.0.255
ip nat inside source list 1 pool mypool
interface g1/1
ip nat inside
interface g1/2
ip nat outside
- enable
configure terminal
ip nat pool mypool 192.168.3.1 192.168.3.3 prefix-length 30
access-list 1 permit 10.10.0.0 0.0.0.255
ip nat outside destination list 1 pool mypool
interface g1/1
ip nat inside
interface g1/2
ip nat outside
- enable
configure terminal
ip nat pool mypool 192.168.3.1 192.168.3.3 prefix-length 30
access-list 1 permit 10.10.0.0 0.0.0.254
ip nat inside source list 1 pool mypool
interface g1/1
ip nat inside
interface g1/2
ip nat outside

- A. Option A
- B. Option B
- C. Option C
- D. Option D

Answer: C

NEW QUESTION 7

- (Exam Topic 2)

Which IPv6 address type provides communication between subnets and is unable to route on the Internet?

- A. global unicast
- B. unique local
- C. link-local
- D. multicast

Answer: B

NEW QUESTION 8

- (Exam Topic 2)

Which protocol requires authentication to transfer a backup configuration file from a router to a remote server?

- A. DTP
- B. FTP

- C. SMTP
- D. TFTP

Answer: B

NEW QUESTION 9

- (Exam Topic 1)

Which MAC address is recognized as a VRRP virtual address?

- A. 0000.5E00.010a
- B. 0005.3711.0975
- C. 0000.0C07.AC99
- D. 0007.C070/AB01

Answer: A

Explanation:

With VRRP, the virtual router's MAC address is 0000.5E00.01xx , in which xx is the VRRP group.

NEW QUESTION 10

- (Exam Topic 1)

If a notice-level messaging is sent to a syslog server, which event has occurred?

- A. A network device has restarted
- B. An ARP inspection has failed
- C. A routing instance has flapped
- D. A debug operation is running

Answer: C

Explanation:

Usually no action is required when a route flaps so it generates the notification syslog level message (level 5).

NEW QUESTION 10

- (Exam Topic 1)

What uses HTTP messages to transfer data to applications residing on different hosts?

- A. OpenFlow
- B. OpenStack
- C. OpFlex
- D. REST

Answer: D

NEW QUESTION 15

- (Exam Topic 1)

Which virtual MAC address is used by VRRP group 1?

- A. 0050.0c05.ad81
- B. 0007.c061.bc01
- C. 0000.5E00.0101
- D. 0500.3976.6401

Answer: C

Explanation:

The virtual router MAC address associated with a virtual router is an IEEE 802 MAC Address in the following format: 00-00-5E-00-01- $\{VRID\}$ (in hex in internet standard bit-order)

NEW QUESTION 16

- (Exam Topic 1)

What criteria is used first during the root port selection process?

- A. local port ID
- B. lowest path cost to the root bridge
- C. lowest neighbor's bridge ID
- D. lowest neighbor's port ID

Answer: B

NEW QUESTION 17

- (Exam Topic 1)

A network administrator is asked to configure VLANS 2, 3 and 4 for a new implementation. Some ports must be assigned to the new VLANS with unused remaining. Which action should be taken for the unused ports?

- A. configure port in the native VLAN

- B. configure ports in a black hole VLAN
- C. configure in a nondefault native VLAN
- D. configure ports as access ports

Answer: B

NEW QUESTION 20

- (Exam Topic 1)

What is a characteristic of a SOHO network?

- A. connects each switch to every other switch in the network
- B. enables multiple users to share a single broadband connection
- C. provides high throughput access for 1000 or more users
- D. includes at least three tiers of devices to provide load balancing and redundancy

Answer: B

NEW QUESTION 24

- (Exam Topic 1)

An engineer is asked to protect unused ports that are configured in the default VLAN on a switch. Which two steps will fulfill the request? (Choose two)

- A. Configure the ports in an EtherChannel.
- B. Administratively shut down the ports
- C. Configure the port type as access and place in VLAN 99
- D. Configure the ports as trunk ports
- E. Enable the Cisco Discovery Protocol

Answer: BC

NEW QUESTION 25

- (Exam Topic 1)

What are two roles of Domain Name Services (DNS)? (Choose Two)

- A. builds a flat structure of DNS names for more efficient IP operations
- B. encrypts network Traffic as it travels across a WAN by default
- C. improves security by protecting IP addresses under Fully Qualified Domain Names (FQDNs)
- D. enables applications to identify resources by name instead of IP address
- E. allows a single host name to be shared across more than one IP address

Answer: DE

NEW QUESTION 29

- (Exam Topic 1)

Which implementation provides the strongest encryption combination for the wireless environment?

- A. WPA2 + AES
- B. WPA + AES
- C. WEP
- D. WPA + TKIP

Answer: A

NEW QUESTION 34

- (Exam Topic 1)

Refer to the exhibit.

```
switch(config)#interface gigabitEthernet 1/11
switch(config-if)#switchport mode access
switch(config-if)#spanning-tree portfast
switch(config-if)#spanning-tree bpduguard enable
```

What is the result if Gig1/11 receives an STP BPDU?

- A. The port transitions to STP blocking
- B. The port transitions to the root port
- C. The port immediately transitions to STP forwarding.
- D. The port goes into error-disable state

Answer: D

NEW QUESTION 36

- (Exam Topic 1)

Drag and drop the descriptions of file-transfer protocols from the left onto the correct protocols on the right.

provides reliability when loading an IOS image upon boot up	FTP
does not require user authentication	
uses port 69	
uses ports 20 and 21	TFTP
uses TCP	
uses UDP	

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

provides reliability when loading an IOS image upon boot up	FTP
uses ports 20 and 21	
uses TCP	
does not require user authentication	TFTP
uses port 69	
uses UDP	

NEW QUESTION 39

- (Exam Topic 1)

Which mode allows access points to be managed by Cisco Wireless LAN Controllers?

- A. autonomous
- B. lightweight
- C. bridge
- D. mobility express

Answer: B

Explanation:

<https://www.cisco.com/c/en/us/support/docs/wireless/aironet-1200-series/70278-lap-faq.html>

A Lightweight Access Point (LAP) is an AP that is designed to be connected to a wireless LAN (WLAN) controller (WLC). APs are "lightweight," which means that they cannot act independently of a wireless LAN controller (WLC). The WLC manages the AP configurations and firmware. The APs are "zero touch" deployed, and individual configuration of APs is not necessary.

NEW QUESTION 41

- (Exam Topic 1)

What is a benefit of using a Cisco Wireless LAN Controller?

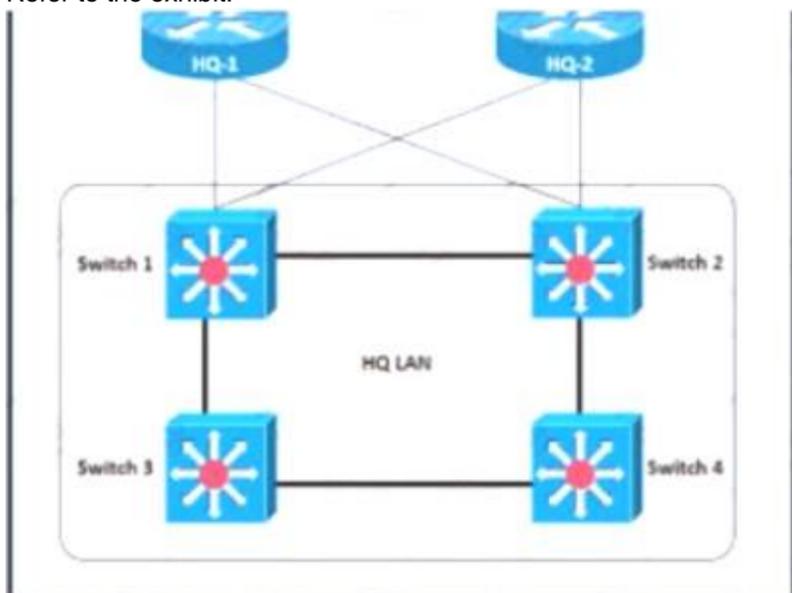
- A. Central AP management requires more complex configurations
- B. Unique SSIDs cannot use the same authentication method
- C. It supports autonomous and lightweight APs
- D. It eliminates the need to configure each access point individually

Answer: D

NEW QUESTION 43

- (Exam Topic 1)

Refer to the exhibit.



After the election process what is the root bridge in the HQ LAN?

Switch 1: 0C:E0:38:58:15:77
 Switch 2: 0C:0E:15:22:1A:81
 Switch 3: 0C:0E:15:1D:3C:9A
 Switch 4: 0C:E0:19:A1:4D:18

- A. Switch 1
- B. Switch 2
- C. Switch 3
- D. Switch 4

Answer: C

Explanation:

The root bridge is determined by the lowest bridge ID, which consists of the priority value and the MAC address. Because the priority values of all of the switches are not available, the MAC address is used to determine the root bridge. Because S3 has the lowest MAC address, S3 becomes the root bridge.

NEW QUESTION 44

- (Exam Topic 1)

What is the purpose of traffic shaping?

- A. to mitigate delays over slow links
- B. to provide fair queuing for buffered flows
- C. to limit the bandwidth that a flow can use to
- D. be a marking mechanism that identifies different flows

Answer: B

Explanation:

Traffic shaping retains excess packets in a queue and then schedules the excess for later transmission over increments of time.

NEW QUESTION 45

- (Exam Topic 1)

Refer to the exhibit.

```
interface GigabitEthernet0/1
ip address 192.168.1.2 255.255.255.0
ip access-group 2699 in
!
access-list 2699 deny icmp any 10.10.1.0 0.0.0.255 echo
access-list 2699 deny ip any 10.20.1.0 0.0.0.255
access-list 2699 permit ip any 10.10.1.0 0.0.0.255
access-list 2699 permit tcp any 10.20.1.0 0.0.0.127 eq 22
```

A network administrator must permit SSH access to remotely manage routers in a network. The operations team resides on the 10.20.1.0/25 network. Which command will accomplish this task?

- A. access-list 2699 permit udp 10.20.1.0 0.0.0.255
- B. no access-list 2699 deny tcp any 10.20.1.0 0.0.0.127 eq 22
- C. access-list 2699 permit tcp any 10.20.1.0 0.0.0.255 eq 22
- D. no access-list 2699 deny ip any 10.20.1.0 0.0.0.255

Answer: D

Explanation:

Note : Already a statement is there in last to allow SSH Traffic for network 10.20.1.0 0.0.0.127, but Second statement says deny ip any 10.20.1.0 0.0.0.255, so how it will work once it is denied. So the right answer is remove the --- no access-list 2699 deny ip any 10.20.1.0 0.0.0.255.

NEW QUESTION 46

- (Exam Topic 1)

Drag and drop the functions of DHCP from the left onto any of the positions on the right Not all functions are used

provides local control for network segments using a client-server scheme	1
reduces the administrative burden for onboarding end users	2
associates hostnames to IP addresses	3
maintains an address pool	4
assigns IP addresses to local hosts for a configurable lease time	
offers domain name server configuration	
uses authoritative servers for record keeping	

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

Graphical user interface, text, application, email Description automatically generated

NEW QUESTION 49

- (Exam Topic 1)

In which situation is private IPv4 addressing appropriate for a new subnet on the network of an organization?

- A. There is limited unique address space, and traffic on the new subnet will stay local within the organization.
- B. The network has multiple endpoint listeners, and it is desired to limit the number of broadcasts.
- C. Traffic on the subnet must traverse a site-to-site VPN to an outside organization.
- D. The ISP requires the new subnet to be advertised to the internet for web services.

Answer: A

NEW QUESTION 53

- (Exam Topic 1)

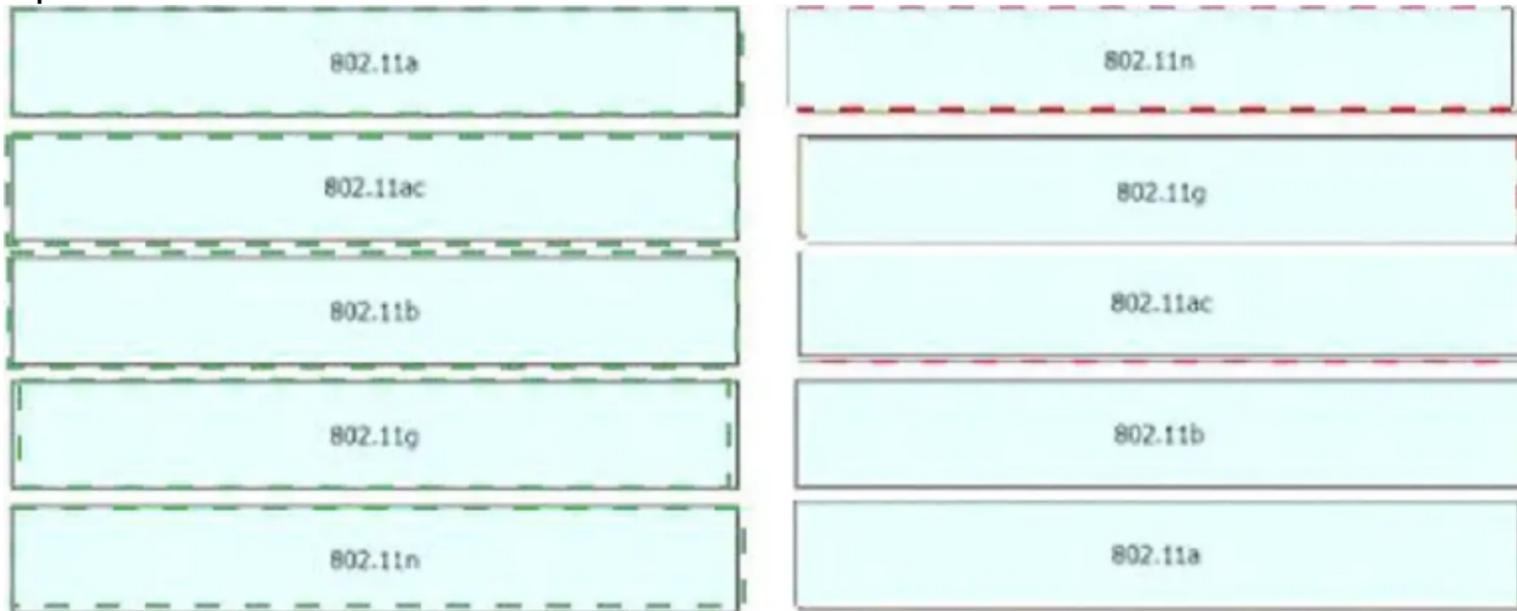
Drag and drop the 802.11 wireless standards from the left onto the matching statements on the right

802.11a	Operates in the 2.4 GHz and 5 GHz bands.
802.11ac	Operates in the 2.4 GHz band only and supports a maximum data rate of 54 Mbps.
802.11b	Operates in the 5 GHz band only and supports a maximum data rate that can exceed 100 Mbps.
802.11g	Supports a maximum data rate of 11 Mbps.
802.11n	Operates in the 5 GHz band only and supports a maximum data rate of 54 Mbps.

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:



NEW QUESTION 54

- (Exam Topic 1)

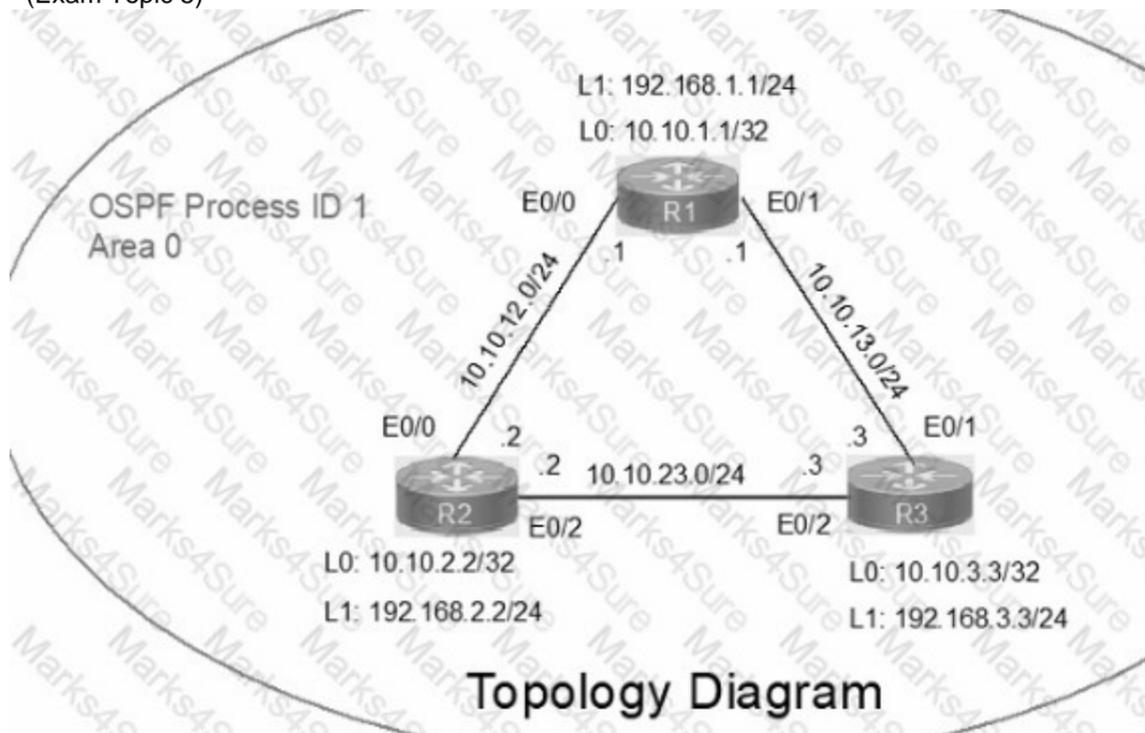
What is a network appliance that checks the state of a packet to determine whether the packet is legitimate?

- A. Layer 2 switch
- B. load balancer
- C. firewall
- D. LAN controller

Answer: C

NEW QUESTION 56

- (Exam Topic 5)



Topology Diagram

Guidelines

This is a lab item in which tasks will be performed on virtual devices.

- Refer to the **Tasks** tab to view the tasks for this lab item.
- Refer to the **Topology** tab to access the device console(s) and perform the tasks.
- Console access is available for all required devices by clicking the device icon or using the tab(s) above the console window.
- All necessary preconfigurations have been applied.
- Do not change the enable password or hostname for any device.
- **Save your configurations** to NVRAM before moving to the next item.
- Click **Next** at the bottom of the screen to submit this lab and move to the next question.
- When **Next** is clicked, the lab closes and cannot be reopened.

IP connectivity between the three routers is configured. OSPF adjacencies must be established.

* 1. Configure R1 and R2 Router IDs using the interface IP addresses from the link that is shared between them.

* 2. Configure the R2 links with a max value facing R1 and R3. R2 must become the DR. R1 and R3 links facing R2 must remain with the default OSPF configuration for DR election. Verify the configuration after clearing the OSPF process.

* 3. Using a host wildcard mask, configure all three routers to advertise their respective Loopback1 networks.

* 4. Configure the link between R1 and R3 to disable their ability to add other OSPF routers.

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

Answer as below configuration:

on R1

```
conf terminal interface Loopback0
ip address 10.10.1.1 255.255.255.255
!
interface Loopback1
ip address 192.168.1.1 255.255.255.0
!
interface Ethernet0/0 no shut
ip address 10.10.12.1 255.255.255.0
ip ospf 1 area 0 duplex auto
!
interface Ethernet0/1 no shut
ip address 10.10.13.1 255.255.255.0
ip ospf 1 area 0 duplex auto
!
router ospf 1
router-id 10.10.12.1
network 10.10.1.1 0.0.0.0 area 0
network 192.168.1.0 0.0.0.255 area 0
!
copy run star
```

On R2

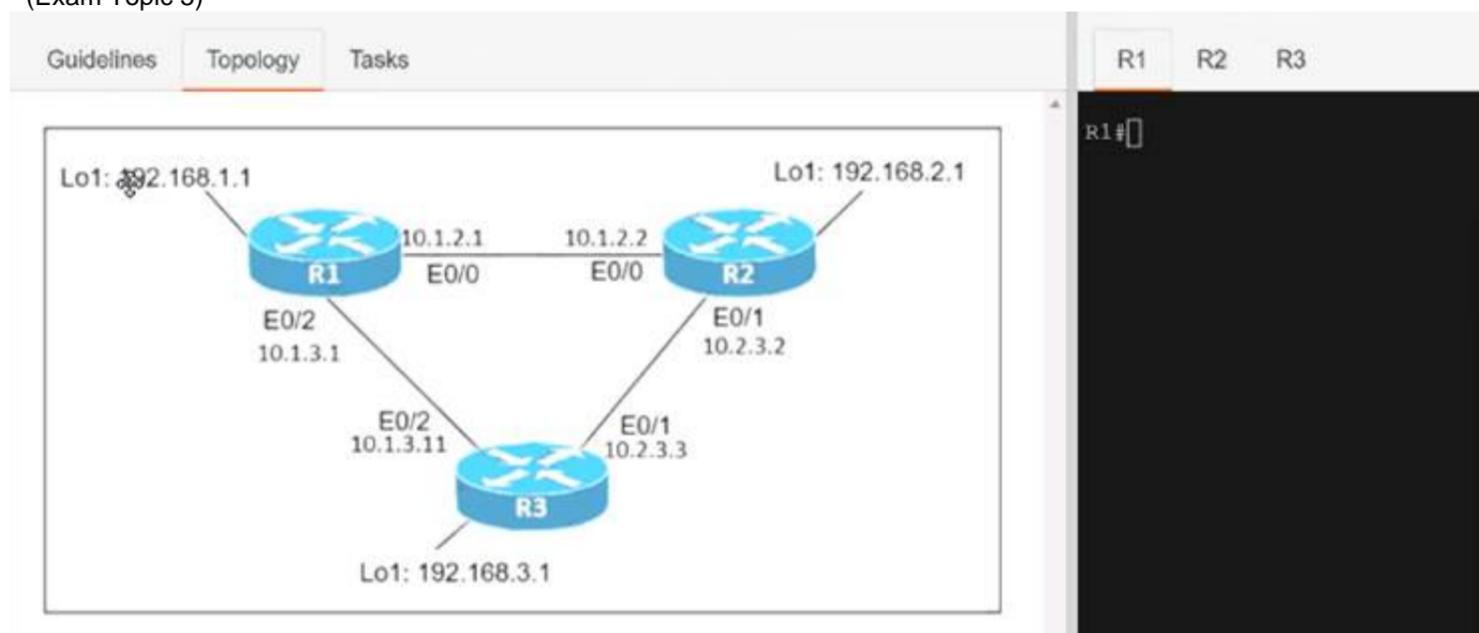
```
conf terminal interface Loopback0
ip address 10.10.2.2 255.255.255.255
!
interface Loopback1
ip address 192.168.2.2 255.255.255.0
!
interface Ethernet0/0 no shut
ip address 10.10.12.2 255.255.255.0
ip ospf priority 255 ip ospf 1 area 0 duplex auto
!
interface Ethernet0/2 no shut
ip address 10.10.23.2 255.255.255.0
ip ospf priority 255 ip ospf 1 area 0
duplex auto
!
router ospf 1
network 10.10.2.2 0.0.0.0 area 0
network 192.168.2.0 0.0.0.255 area 0
!
copy runs start
```

On R3

```
conf ter
interface Loopback0
ip address 10.10.3.3 255.255.255.255
!
interface Loopback1
ip address 192.168.3.3 255.255.255.0
!
interface Ethernet0/1 no shut
ip address 10.10.13.3 255.255.255.0
ip ospf 1 area 0 duplex auto
!
interface Ethernet0/2 no shut
ip address 10.10.23.3 255.255.255.0
ip ospf 1 area 0
duplex auto
!
router ospf 1
network 10.10.3.3 0.0.0.0 area 0
network 192.168.3.0 0.0.0.255 area 0
!
copy run start
!
```

NEW QUESTION 61

- (Exam Topic 5)



R1 R2 R3

R1#

Guidelines Topology Tasks

Guidelines

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R1 R2 R3

R1#

Connectivity between three routers has been established, and IP services must be configured in the order presented to complete the implementation Tasks assigned include configuration of NAT, NTP, DHCP, and SSH services.

- * 1. All traffic sent from R3 to the R1 Loopback address must be configured for NAT on R2. All source addresses must be translated from R3 to the IP address of Ethernet0/0 on R2, while using only a standard access list named NAT To verify, a ping must be successful to the R1 Loopback address sourced from R3. Do not use NVI NAT configuration.
- * 2. Configure R1 as an NTP server and R2 as a client, not as a peer, using the IP address of the R1 Ethernet0/2 interface. Set the clock on the NTP server for midnight on January 1, 2019.
- * 3. Configure R1 as a DHCP server for the network 10.1.3.0/24 in a pool named TEST. Using a single command, exclude addresses 1-10 from the range. Interface Ethernet0/2 on R3 must be issued the IP address of 10.1.3.11 via DHCP.
- * 4. Configure SSH connectivity from R1 to R3, while excluding access via other remote connection protocols. Access for user root and password Cisco must be set on router R3 using RSA and 1024 bits. Verify connectivity using an SSH session from router R1 using a destination address of 10.1.3.11. Do NOT modify console access or line numbers to accomplish this task.

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

Answer as below configuration:

```
conf t
R1(config)#ntp master 1
R2(config)#ntp server 10.1.2.1 Exit
Router#clock set 00:00:00 jan 1 2019 ip dhcp pool TEST
network 10.1.3.0 255.255.255.0
ip dhcp excluded-address 10.1.3.1 10.1.3.10 R3(config)#int e0/3
R3(config)#int e0/2 ip address dhcp
no shut
crypto key generate RSA 1024
Copy run start
```

NEW QUESTION 64

- (Exam Topic 5)

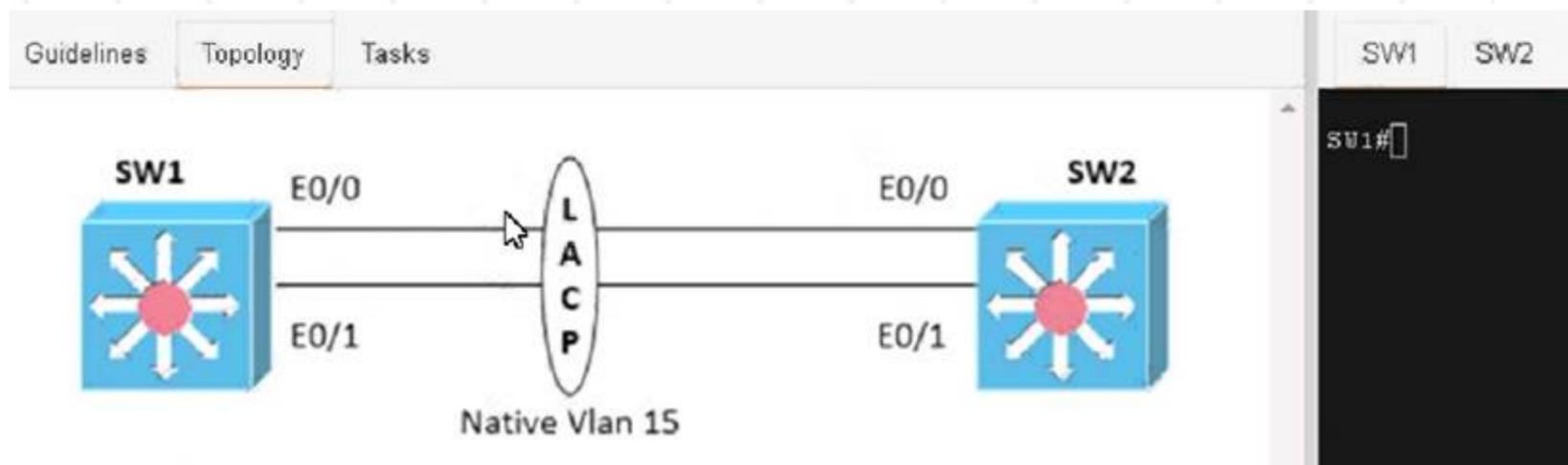
Physical connectivity is implemented between the two Layer 2 switches, and the network connectivity between them must be configured

- * 1. Configure an LACP EtherChannel and number it as 1; configure it between switches SW1 and SVV2 using interfaces Ethernet0/0 and Ethernet0/1 on both sides. The LACP mode must match on both ends
- * 2. Configure the EtherChannel as a trunk link.
- * 3. Configure the trunk link with 802.1 q tags.
- * 4. Configure the native VLAN of the EtherChannel as VLAN 15.

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- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

Answer as below configuration:

On SW1:

```

conf terminal vlan 15
exit
interface range eth0/0 - 1 channel-group 1 mode active exit
interface port-channel 1
switchport trunk encapsulation dot1q switchport mode trunk
switchport trunk native vlan 15 end
copy run start on SW2: conf terminal vlan 15
exit
interface range eth0/0 - 1 channel-group 1 mode active exit
interface port-channel 1
switchport trunk encapsulation dot1q switchport mode trunk
switchport trunk native vlan 15 end
copy run start
    
```

NEW QUESTION 68

- (Exam Topic 4)

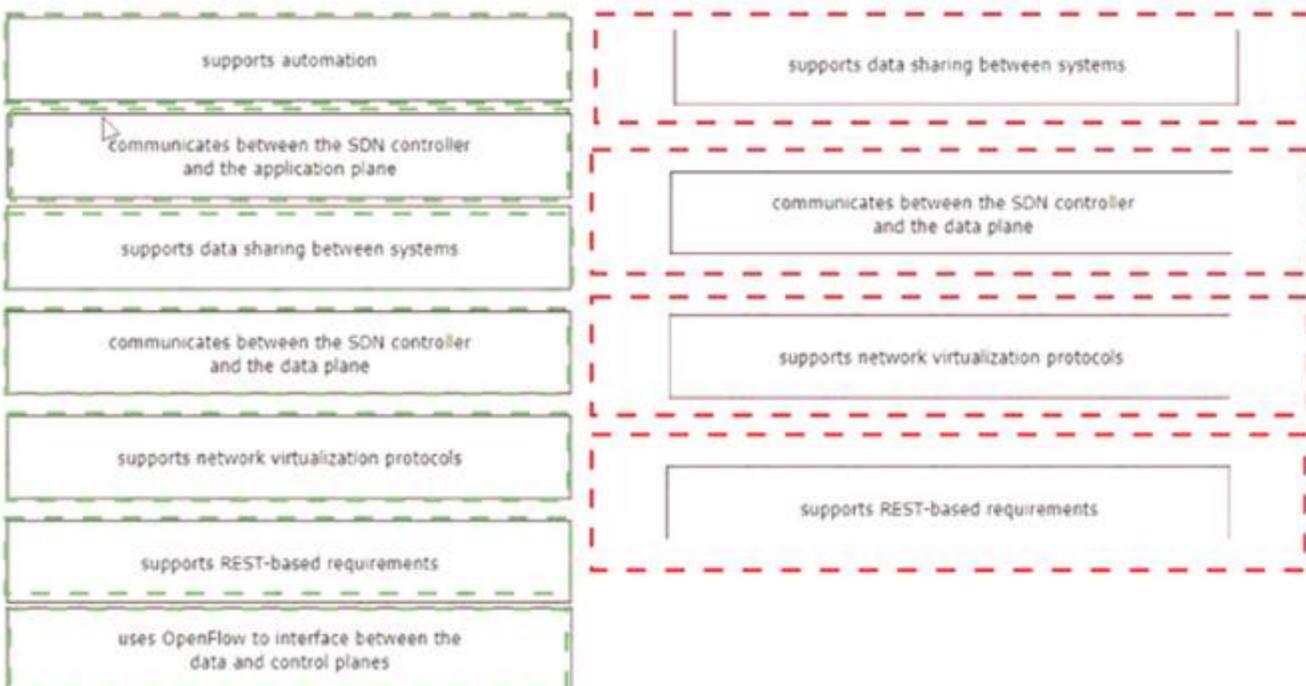
Drag and drop the characteristics of northbound APIs from the left onto any position on the right. Not all characteristics are used.

- supports automation
- communicates between the SDN controller and the application plane
- supports data sharing between systems
- communicates between the SDN controller and the data plane
- supports network virtualization protocols
- supports REST-based requirements
- uses OpenFlow to interface between the data and control planes

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:



NEW QUESTION 72

- (Exam Topic 4)

PC1 tries to send traffic to newly installed PC2. The PC2 MAC address is not listed in the MAC address table of the switch, so the switch sends the packet to all ports in the same VLAN Which switching concept does this describe?

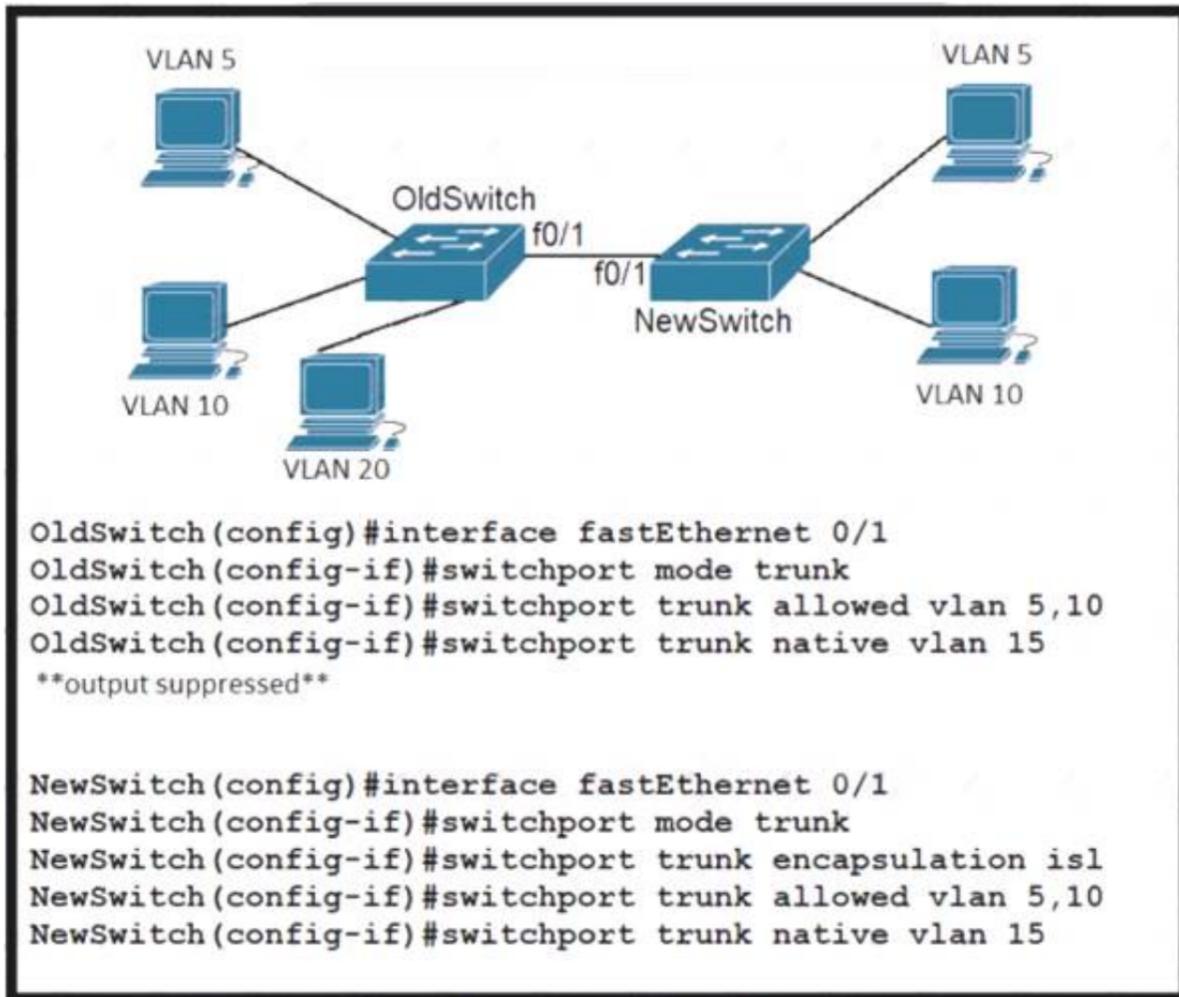
- A. MAC address aging
- B. MAC address table
- C. frame flooding
- D. spanning-tree protocol

Answer: A

NEW QUESTION 74

- (Exam Topic 4)

Refer to the exhibit.



A new VLAN and switch are added to the network. A remote engineer configures OldSwitch and must ensure that the configuration meets these requirements:

- accommodates current configured VLANs
- expands the range to include VLAN 20
- allows for IEEE standard support for virtual LANs

Which configuration on the NewSwitch side of the link meets these requirements?

A)

```
no switchport trunk encapsulation isl
switchport trunk encapsulation dot1q
switchport trunk allowed vlan add 20
```

B)

```
> switchport nonegotiate
no switchport trunk allowed vlan 5,10
switchport trunk allowed vlan 5,10,15,20
```

C)

```
> no switchport mode trunk
switchport trunk encapsulation isl
switchport mode access vlan 20
```

D)

```
switchport mode dynamic
channel-group 1 mode active
switchport trunk allowed vlan 5,10,15, 20
```

- A. Option A
- B. Option B
- C. Option C
- D. Option D

Answer: C

NEW QUESTION 76

- (Exam Topic 4)

What is a function of Cisco Advanced Malware Protection for a Next-Generation IPS?

- A. authorizing potentially compromised wireless traffic
- B. inspecting specific files and file types for malware
- C. authenticating end users
- D. URL filtering

Answer: B

Explanation:

AMP gives you real-time blocking of malware and advanced sandboxing, that is backed up by world class global threat intelligence, to provide rapid detection, containment and removal of advanced malware

<https://www.cisco.com/c/en/us/products/security/amp-appliances/index.html>

NEW QUESTION 81

- (Exam Topic 4)

Drag and drop the characteristic from the left onto the IPv6 address type on the right.

provides one-to-many communications

has a unicast source sent to a group

enables aggregation of routing prefixes

is routable and reachable via the Internet

Global Unicast Address

Multicast

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

provides one-to-many communications

has a unicast source sent to a group

enables aggregation of routing prefixes

is routable and reachable via the Internet

Global Unicast Address

enables aggregation of routing prefixes

is routable and reachable via the Internet

Multicast

provides one-to-many communications

has a unicast source sent to a group

NEW QUESTION 86

- (Exam Topic 4)

After a recent security breach and a RADIUS failure, an engineer must secure the console port of each enterprise router with a local username and password. Which configuration must the engineer apply to accomplish this task?

- aaa new-model
line con 0
password plaintextpassword
privilege level 15
- username localuser secret plaintextpassword
line con 0
login authentication default
privilege level 15
- username localuser secret plaintextpassword
line con 0
no login local
privilege level 15
- aaa new-model
aaa authorization exec default local
aaa authentication login default radius
username localuser privilege 15 secret plaintextpassword

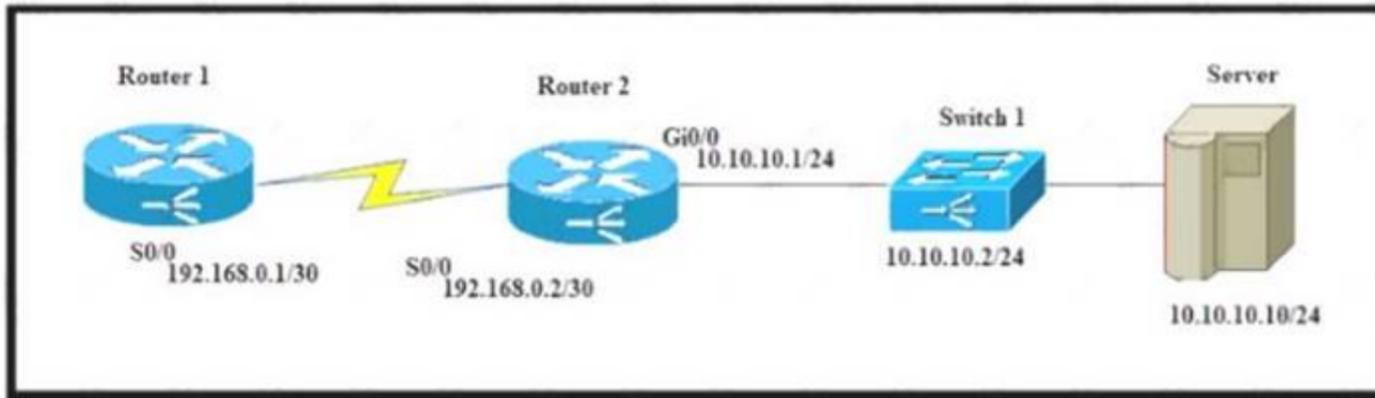
- A. Option A
- B. Option B
- C. Option C
- D. Option D

Answer: B

NEW QUESTION 91

- (Exam Topic 4)

Refer to the exhibit.



A network engineer must configure router R1 with a host route to the server. Which command must the engineer configure?

- A. R1(config)#ip route 10.10.10.0 255.255.255.0 192.168.0.2
- B. R1(Config)#ip route 10.10.10.10 255.255.255.255 192 168.0.2
- C. R1(config)#ip route 192.168.0.2 255.255.255.255 10.10.10.10
- D. R1(config)#ip route 0.0.0.0 0.0 0.0 192 168.0.2

Answer: B

NEW QUESTION 95

- (Exam Topic 4)

Drag and drop the IPv6 address details from the left onto the corresponding types on the right.

identifies an interface on an IPv6 device	Anycast
includes link-local and loopback addresses	
provides one-to-many communications	Multicast
used exclusively by a non-host device	
assigned to more than one interface	Unicast
derived from the FF00::/8 address range	

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

Graphical user interface, diagram Description automatically generated

NEW QUESTION 98

- (Exam Topic 4)

Drag and drop the Ansible features from the left to the right Not all features are used.

executes modules via SSH by default	feature
uses the YAML language	feature
uses agents to manage hosts	feature
pushes configurations to the client	feature
requires clients to pull configurations from the server	
operates without agents	

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:



NEW QUESTION 99

- (Exam Topic 4)

Refer to the exhibit.

```

"attributes": {
  "pwd": "password1",
  "firstName": "Abraham",
  "lastName": "Lincoln",
  "phone": "5555551212",
  "email": "test@cisco.com"
},
"children": [{
  "aaaUserDomain": {
    "attributes": {
      "name": "ExampleCisco"
    },
    "children": [{
      "aaaUserRole": {
        "attributes": {
          "name": "admin"
        }
      }
    ]
  }
}]
}

```

How many objects are present in the given JSON-encoded data?

- A. one
- B. four
- C. seven
- D. nine

Answer: B

NEW QUESTION 104

- (Exam Topic 4)

Refer to the exhibit.



A network engineer configures the Cisco WLC to authenticate local wireless clients against a RADIUS server Which task must be performed to complete the process?

- A. Change the Server Status to Disabled
- B. Select Enable next to Management
- C. Select Enable next to Network User
- D. Change the Support for CoA to Enabled.

Answer: C

NEW QUESTION 107

- (Exam Topic 4)

When is the PUT method used within HTTP?

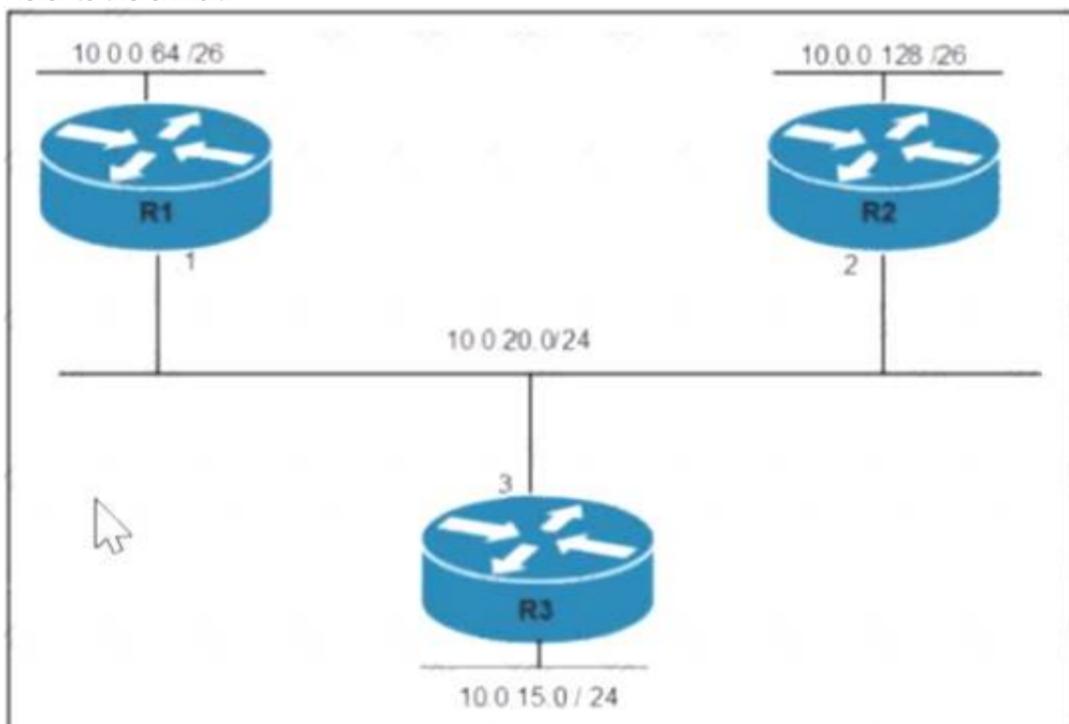
- A. when a nonidempotent operation is needed
- B. to update a DNS server
- C. to display a web site
- D. when a read-only operation it required

Answer: B

NEW QUESTION 112

- (Exam Topic 4)

Refer to the exhibit.



Router R1 is added to the network and configured with the 10.0.0.64/26 and 10.0.20.0/24 subnets. However, traffic destined for the LAN on R3 is not accessible. Which command, when executed on R1, defines a tunnel route to reach the R3 LAN?

- A) `ip route 10.0.15.0 255.255.255.192 10.0.20.1`
- B) `ip route 10.0.15.0 255.255.255.0 10.0.20.1`
- C) `ip route 10.0.0.64 255.255.255.192 10.0.20.3`

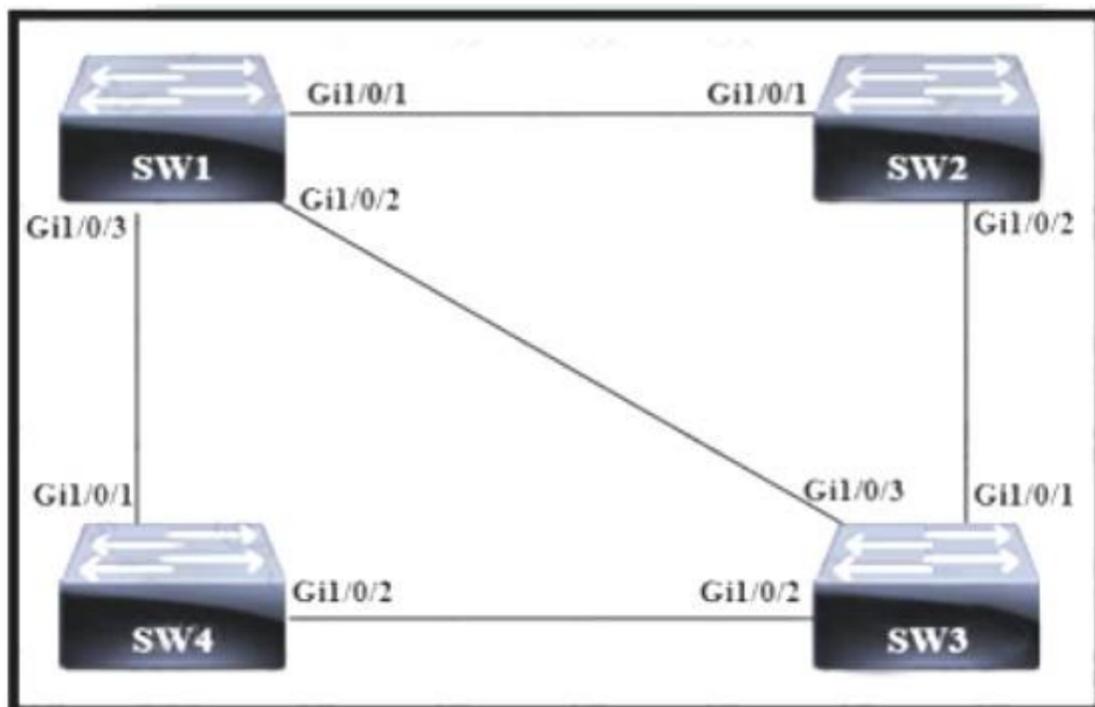
- A. Option A
- B. Option B
- C. Option C

Answer: C

NEW QUESTION 114

- (Exam Topic 4)

Refer to the exhibit.



Which switch becomes the root bridge?

- A)
 - SW 1
 - Bridge Priority - 32768
 - mac-address 0d:ca:8e:7f:a0:24
- B)
 - SW 2
 - Bridge Priority - 53248
 - mac-address 02:3e:ee:61:5b:21
- C)
 - SW 4
 - Bridge Priority - 32768
 - mac-address 07:c1:b7:27:dd:73
- D)
 - SW 3
 - Bridge Priority - 53248
 - mac-address 02:aa:03:d3:05:87

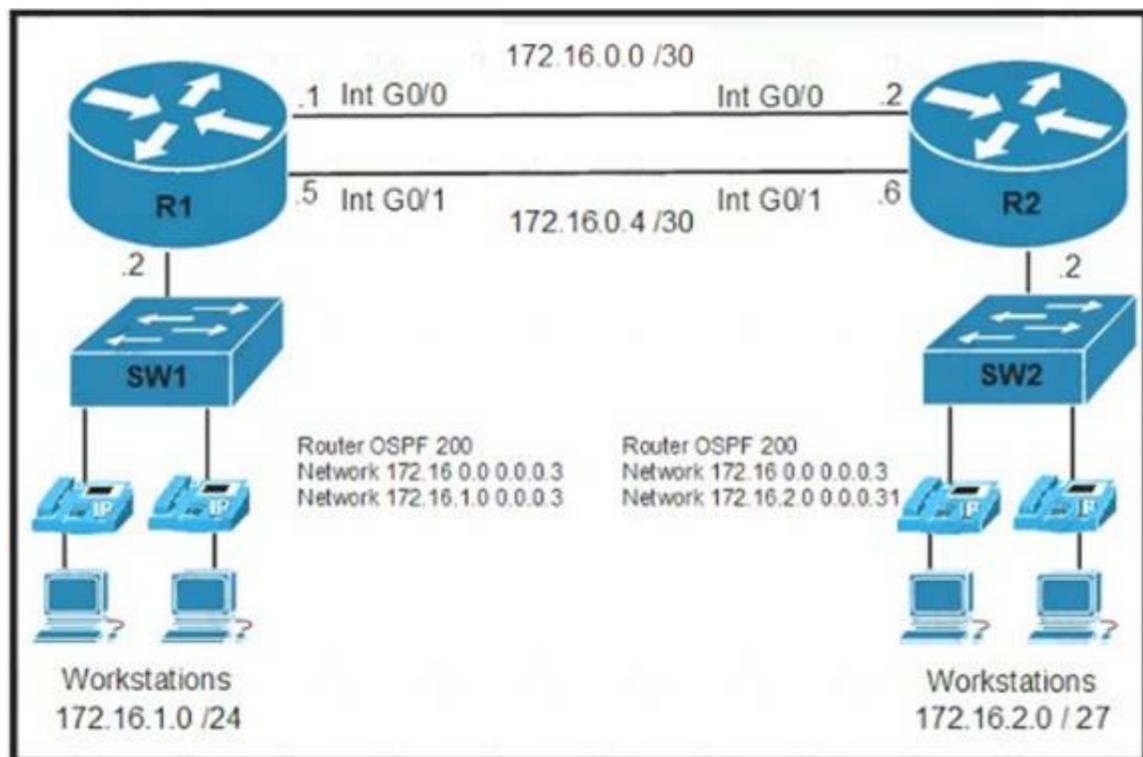
- A. Option A
- B. Option B
- C. Option C
- D. Option D

Answer: B

NEW QUESTION 116

- (Exam Topic 4)

Refer to the exhibit.



The primary route across Gi0/0 is configured on both routers. A secondary route must be configured to establish connectivity between the workstation networks. Which command set must be configured to complete this task?

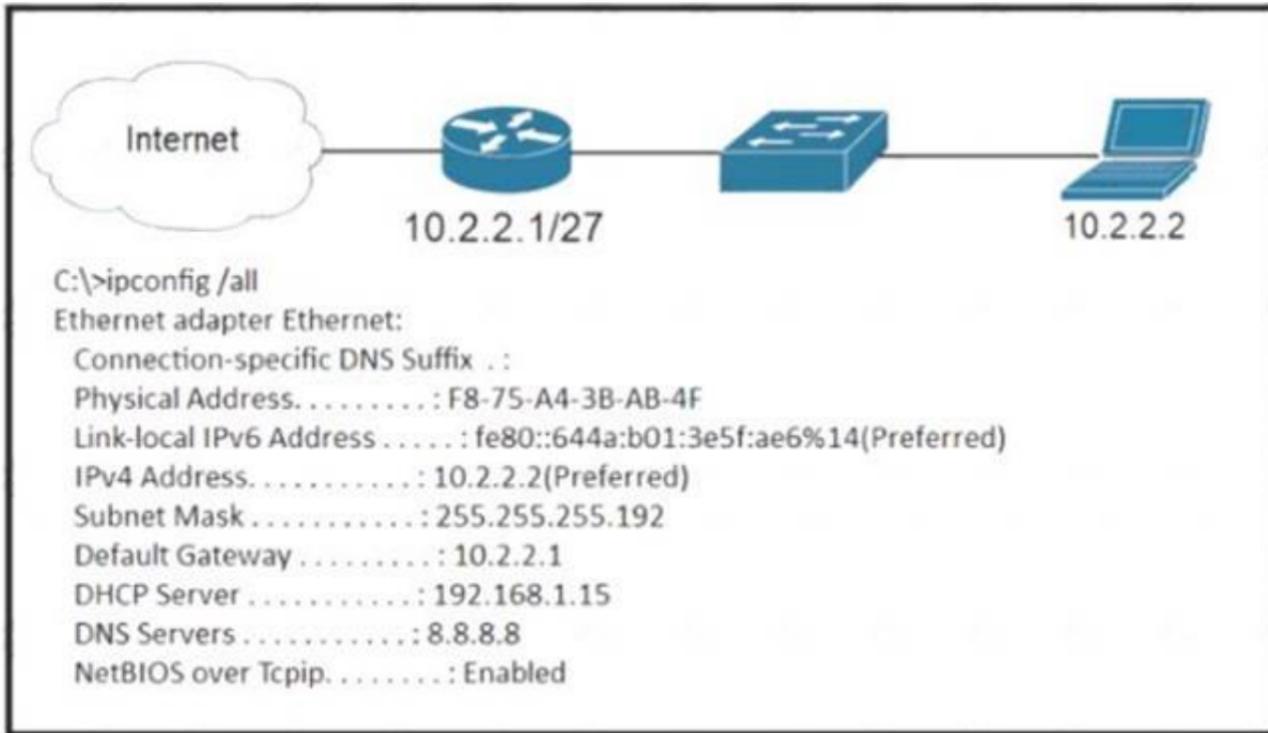
- A)
 - R1
 - `ip route 172.16.2.0 255.255.255.240 172.16.0.2 113`
 - R2
 - `ip route 172.16.1.0 255.255.255.0 172.16.0.1 114`
- B)
 - R1
 - `ip route 172.16.2.0 255.255.255.240 172.16.0.5 89`
 - R2
 - `ip route 172.16.1.0 255.255.255.0 172.16.0.6 89`
- C)
 - >R1
 - `ip route 172.16.2.0 255.255.255.248 172.16.0.5 110`
 - R2
 - `ip route 172.16.1.0 255.255.255.0 172.16.0.6 110`
- D)
 - R1
 - `ip route 172.16.2.0 255.255.255.224 172.16.0.6 111`
 - R2
 - `ip route 172.16.1.0 255.255.255.0 172.16.0.5 112`

- A. Option A
- B. Option B
- C. Option C
- D. Option D

Answer: D

NEW QUESTION 120

- (Exam Topic 4)
 Refer to the exhibit.



A newly configured PC fails to connect to the internet using TCP port 80 to www cisco com Which setting must be modified for the connection to work?

- A. Subnet Mask
- B. DNS Servers
- C. Default Gateway
- D. DHCP Server

Answer: B

NEW QUESTION 122

- (Exam Topic 4)

Drag and drop the IPv6 addresses from the left onto the corresponding address types on the right.

2001:db8:600d:cafe::123	Global Unicast
fcba:926a:e0e:7a25:b1:c6d2:1a76:8fde	Link-Local Unicast
fe80::a00:27ff:feeb:89aa	Multicast
#05::1:3	Unique Local

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

Graphical user interface Description automatically generated

NEW QUESTION 126

- (Exam Topic 4)

How do UTP and STP cables compare?

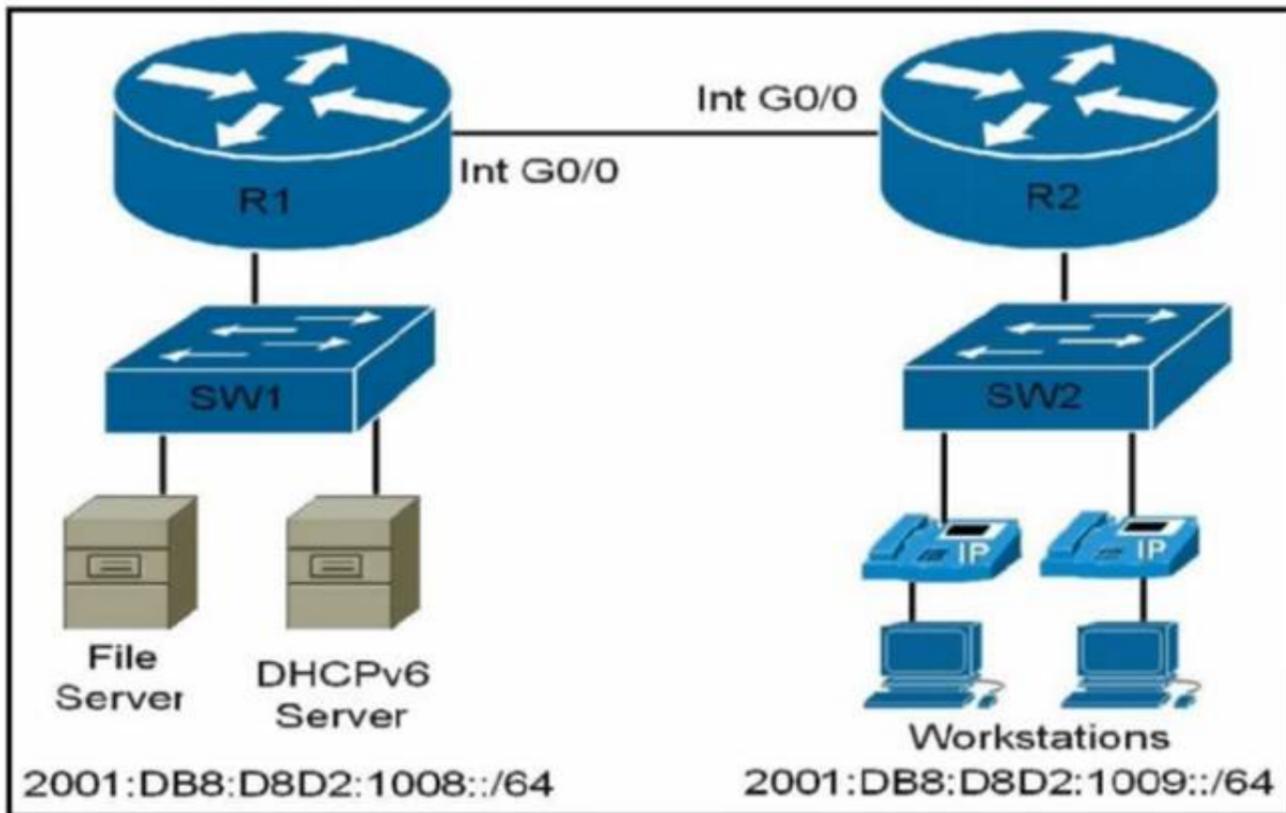
- A. STP cables are cheaper to procure and easier to install and UTP cables are more expensive and harder to install.
- B. UTP cables are less prone to crosstalk and interference and STP cables are more prone to crosstalk and interference.
- C. UTP cables provide faster and more reliable data transfer rates and STP cables are slower and less reliable.
- D. STP cables are shielded and protect against electromagnetic interference and UTP lacks the same protection against electromagnetic interference.

Answer: D

NEW QUESTION 130

- (Exam Topic 4)

Refer to the exhibit An IPv6 address must be obtained automatically on the LAN interface on R1 Which command must be implemented to accomplish the task?



- A. Ipv6 address 2001:dbB:d8d2:1008:4343:61:0010::/64
- B. Ipv6 address autoconfig
- C. Ipv6 address fe80::/10
- D. Ipv6 address dhcp

Answer: B

NEW QUESTION 132

- (Exam Topic 4)

Drag and drop the AAA features from the left onto the corresponding AAA security services on the right. Not all options are used.

Answer Area

It enables the device to allow user- or group-based access.	Accounting
It leverages a RADIUS server to grant user access to a reverse Telnet session.	
It records the amount of time for which a user accesses the network on a remote server.	Authorization
It restricts the CLI commands that a user can perform.	
It uses TACACS+ to log the configuration commands entered by a network administrator.	
It verifies the user and password before granting access to the device.	

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

Answer Area

- It enables the device to allow user- or group-based access.
- It leverages a RADIUS server to grant user access to a reverse Telnet session.
- It records the amount of time for which a user accesses the network on a remote server.
- It restricts the CLI commands that a user can perform.
- It uses TACACS+ to log the configuration commands entered by a network administrator.
- It verifies the user and password before granting access to the device.

Accounting

- It records the amount of time for which a user accesses the network on a remote server.
- It uses TACACS+ to log the configuration commands entered by a network administrator.

Authorization

- It leverages a RADIUS server to grant user access to a reverse Telnet session.
- It restricts the CLI commands that a user can perform.

NEW QUESTION 135

- (Exam Topic 4)

What is a similarity OM3 and OM4 fiber optical cable?

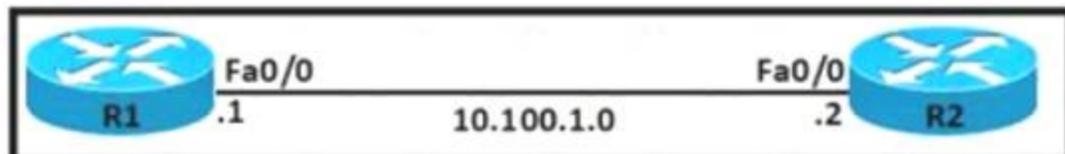
- A. Both have a 62.5 micron core diameter.
- B. Both have a 50 micron core diameter.
- C. Both have a 100 micron core diameter.
- D. Both have a 9 micron core diameter.

Answer: B

NEW QUESTION 136

- (Exam Topic 4)

Refer to the exhibit.



An OSPF neighbor relationship must be configured using these guidelines:

- R1 is only permitted to establish a neighbor with R2
- R1 will never participate in DR elections
- R1 will use a router-id of 101.1.1. Which configuration must be used?

A)

```
interface Loopback0
 ip address 10.1.1.1 255.255.255.255

interface FastEthernet0/0
 ip address 10.100.1.1 255.255.255.252
 ip ospf priority 100
 ip access-group 102 in

router ospf 10
 log-adjacency-changes
 network 10.1.1.1 0.0.0.0 area 0
 network 10.100.1.0 0.0.0.3 area 0
 ospf router-id 10.1.1.1

access-list 102 permit 88 host 10.100.1.2 host 224.0.0.5
access-list 102 deny 88 any any
access-list 102 permit ip any any
```

B)

```
interface Loopback0
 ip address 10.1.1.1 255.255.255.255

interface FastEthernet0/0
 ip address 10.100.1.1 255.255.255.252
 ip ospf priority 0
 ip access-group 102 in

router ospf 10
 log-adjacency-changes
 network 10.1.1.1 0.0.0.0 area 0
 network 10.100.1.0 0.0.0.3 area 0
 router-id 10.1.1.1

access-list 102 permit 88 host 10.100.1.2 host 224.0.0.5
access-list 102 deny 88 any any
access-list 102 permit ip any any
```

C)

```
interface FastEthernet0/0
 ip address 10.100.1.1 255.255.255.252
 ip ospf priority 100
 ip access-group 102 in

router ospf 10
 log-adjacency-changes
 network 10.1.1.1 0.0.0.0 area 0
 network 10.100.1.0 0.0.0.3 area 0
 ospf router-id 10.1.1.1

access-list 102 permit 89 host 10.100.1.2 host 224.0.0.5
access-list 102 deny 89 any any
access-list 102 permit ip any any
```

D)

```
interface FastEthernet0/0
 ip address 10.100.1.1 255.255.255.252
 ip ospf priority 0
 ip access-group 102 in

router ospf 10
 log-adjacency-changes
 network 10.1.1.1 0.0.0.0 area 0
 network 10.100.1.0 0.0.0.3 area 0
 router-id 10.1.1.1

access-list 102 permit 89 host 10.100.1.2 host 224.0.0.5
access-list 102 deny 89 any any
access-list 102 permit ip any any
```

- A. Option A
- B. Option B
- C. Option C
- D. Option D

Answer: C

NEW QUESTION 139

- (Exam Topic 4)

Which functionality is provided by the console connection on a Cisco WLC?

- A. out-of-band management
- B. secure in-band connectivity for device administration
- C. unencrypted in-band connectivity for file transfers
- D. HTTP-based GUI connectivity

Answer: B

NEW QUESTION 141

- (Exam Topic 4)

Refer to the exhibit.

```
R1# show ip route | begin gateway
Gateway of last resort is not set
 172.16.0.0/16 is variably subnetted, 3 subnets, 2 masks
 C   172.16.1.0/24 is directly connected, FastEthernet0/0
 L   172.16.1.1/32 is directly connected, FastEthernet0/0
 EX  172.16.2.0/24 [170/2] via 207.165.200.250, 00:00:25, Serial0/0/0
 O   192.168.1.0/24 [110/84437] via 207.165.200.254, 00:00:17, Serial0/0/1
 D   192.168.2.0/24 [90/184437] via 207.165.200.254, 00:00:15, Serial0/0/1
 E1  192.168.3.0/24 [110/1851437] via 207.165.200.254, 00:00:19, Serial0/0/1
 207.165.200.0/24 is variably subnetted, 4 subnets, 2 masks
 C   207.165.200.248/30 is directly connected, Serial0/0/0
 L   207.165.200.249/32 is directly connected, Serial0/0/0
 C   207.165.200.252/30 is directly connected, Serial0/0/1
 L   207.165.200.253/32 is directly connected, Serial0/0/1
```

Which prefix did router R1 learn from internal EIGRP?

- A. 192.168.10/24
- B. 192.168.3.0/24
- C. 192.168.2.0/24

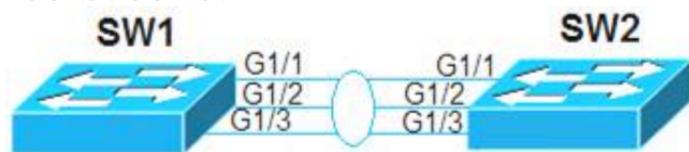
D. 172.16 1.0/24

Answer: C

NEW QUESTION 143

- (Exam Topic 4)

Refer to the exhibit.



Which configuration establishes a Layer 2 LACP EtherChannel when applied to both switches?

- A. Interface range G1/1 – 1/3 switchport mode trunk channel-group 1 mode active no shutdown
- B. Interface range G1/1 – 1/3 switchport mode access channel-group 1 mode passive no shutdown
- C. Interface range G1/1 – 1/3 switchport mode trunk channel-group 1 mode desirable no shutdown
- D. Interface range G1/1 – 1/3 switchport mode access channel-group 1 mode on no shutdown

Answer: A

NEW QUESTION 146

- (Exam Topic 4)

Which type of address is shared by routers in a HSRP implementation and used by hosts on the subnet as their default gateway address?

- A. multicast address
- B. loopback IP address
- C. virtual IP address
- D. broadcast address

Answer: C

NEW QUESTION 149

- (Exam Topic 4)

SIP-based Call Admission Control must be configured in the Cisco WLC GUI. SIP call-snooping ports are configured. Which two actions must be completed next? (Choose two.)

- A. Set the QoS level to silver or greater for voice traffic.
- B. Set the QoS level to platinum for voice traffic.
- C. Enable Media Session Snooping on re WLAN.
- D. Enable traffic shaping for the LAN interlace of the WLC.
- E. Configure two different QoS rates tor data and voice traffic.

Answer: DE

NEW QUESTION 153

- (Exam Topic 4)

Which IPsec transport mode encrypts the IP header and the payload?

- A. pipe
- B. control
- C. transport
- D. tunnel

Answer: D

NEW QUESTION 157

- (Exam Topic 4)

Which security method is used to prevent man-in-the-middle attack?

- A. authorization
- B. authentication
- C. anti-replay
- D. accounting

Answer: B

NEW QUESTION 158

- (Exam Topic 4)

What is the advantage of separating the control plane from the data plane within an SDN network?

- A. decreases overall network complexity
- B. limits data queries to the control plane
- C. reduces cost
- D. offloads the creation of virtual machines to the data plane

Answer: A

NEW QUESTION 162

- (Exam Topic 4)

Refer to the exhibit.

```
Gateway of last resort is not set
```

```
10.0.0.0/8 is variably subnetted, 2 subnets, 2 masks
C   10.1.1.0/30 is directly connected, GigabitEthernet0/0
L   10.1.1.2/32 is directly connected, GigabitEthernet0/0
S   192.168.0.0/20 [1/0] via 10.1.1.1
    192.168.1.0/30 is subnetted, 1 subnets
S   192.168.1.0/30 [1/0] via 10.1.1.1
    192.168.2.0/24 is variably subnetted, 2 subnets, 2 masks
S   192.168.2.0/28 [1/0] via 10.1.1.1
S   192.168.2.0/29 [1/0] via 10.1.1.1
```

An engineer is checking the routing table in the main router to identify the path to a server on the network. Which route does the router use to reach the server at 192.168.2.2?

- A. S 192.168.0.0/20 [1/0] via 10.1.1.1
- B. S 192.168.2.0/29 [1/0] via 10.1.1.1
- C. S 192.168.2.0/28 [1/0] via 10.1.1.1
- D. S 192.168.1.0/30 [1/0] via 10.1.1.1

Answer: B

NEW QUESTION 163

- (Exam Topic 4)

What is the function of a controller in a software-defined network?

- A. multicast replication at the hardware level
- B. forwarding packets
- C. fragmenting and reassembling packets
- D. setting packet-handling policies

Answer: B

NEW QUESTION 166

- (Exam Topic 4)

When a WPA2-PSK WLAN is configured in the Wireless LAN Controller, what is the minimum number of characters that is required in ASCII format?

- A. 6
- B. 8
- C. 12
- D. 18

Answer: B

NEW QUESTION 171

- (Exam Topic 4)

What is a benefit for external users who consume public cloud resources?

- A. implemented over a dedicated WAN
- B. located in the same data center as the users
- C. all hosted on physical servers
- D. accessed over the Internet

Answer: D

NEW QUESTION 175

- (Exam Topic 4)

How do TCP and UDP fit into a query-response model?

- A. TCP establishes a connection prior to sending data, and UDP sends immediately.
- B. TCP uses error detection for packets, and UDP uses error recovery.
- C. TCP avoids using sequencing, and UDP avoids using acknowledgments.
- D. TCP encourages out-of-order packet delivery, and UDP prevents re-ordering.

Answer: A

NEW QUESTION 179

- (Exam Topic 4)

Refer to the exhibit.

```
GigabitEthernet1 is up, line protocol is up
Hardware is CSR vNIC, address is 5000.0004.0000 (bia 5000.0004.0000)
Internet address is 192.168.1.1/24
MTU 1500 bytes, BW 1000000 Kbit/sec, DLY 10 usec,
reliability 255/255, txload 1/255, rxload 1/255
Encapsulation ARPA, loopback not set
Keepalive set (10 sec)
Full Duplex, 1000Mbps, link type is auto, media type is RJ45
```

Which format matches the Modified EUI-64 IPv6 interface address for the network 2001:db8::/64?

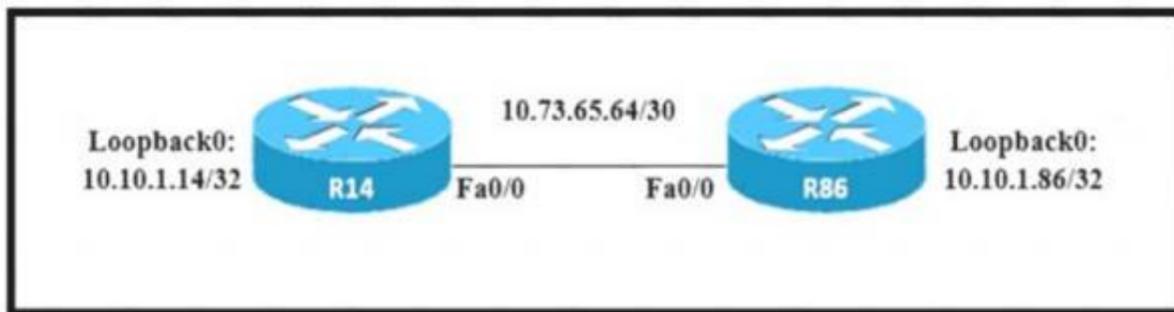
- A. 2001 :db8::5000:0004:5678:0090/64
- B. 2001 :db8:4425:5400:77ft:fe07:/64
- C. 2001 :db8::5000:00ff:fe04 0000/64
- D. 2001 :db8::5200:00ff:fe04:0000/64

Answer: C

NEW QUESTION 181

- (Exam Topic 4)

Refer to the exhibit.



All interfaces are configured with duplex auto and ip ospf network broadcast. Which configuration allows routers R14 and R86 to form an OSPFv2 adjacency and act as a central point for exchanging OSPF information between routers?

```
R14#
interface FastEthernet0/0
ip address 10.73.65.65 255.255.255.252
ip ospf priority 0
ip mtu 1500

router ospf 10
router-id 10.10.1.14
network 10.10.1.14 0.0.0.0 area 0
network 10.73.65.64 0.0.0.3 area 0
R86#
interface FastEthernet0/0
ip address 10.73.65.66 255.255.255.252
ip mtu 1500

router ospf 10
router-id 10.10.1.86
network 10.10.1.86 0.0.0.0 area 0
network 10.73.65.64 0.0.0.3 area 0
```

R14#
interface Loopback0
ip ospf 10 area 0

interface FastEthernet0/0
ip address 10.73.65.65 255.255.255.252
ip ospf priority 255
ip ospf 10 area 0
ip mtu 1500

router ospf 10
router-id 10.10.1.14

R86#
interface Loopback0
ip ospf 10 area 0
interface FastEthernet0/0
ip address 10.73.65.66 255.255.255.252
ip ospf 10 area 0
ip mtu 1500

router ospf 10
router-id 10.10.1.86

R14#
interface FastEthernet0/0
ip address 10.73.65.65 255.255.255.252
ip ospf priority 255
ip mtu 1500

router ospf 10
router-id 10.10.1.14
network 10.10.1.14 0.0.0.0 area 0
network 10.73.65.64 0.0.0.3 area 0
R86#
interface FastEthernet0/0
ip address 10.73.65.66 255.255.255.252
ip mtu 1400

router ospf 10
router-id 10.10.1.86
network 10.10.1.86 0.0.0.0 area 0
network 10.73.65.64 0.0.0.3 area 0

R14#
interface Loopback0
ip ospf 10 area 0

interface FastEthernet0/0
ip address 10.73.65.65 255.255.255.252
ip ospf 10 area 0
ip mtu 1500

router ospf 10
ip ospf priority 255
router-id 10.10.1.14
R86#
interface Loopback0
ip ospf 10 area 0

interface FastEthernet0/0
ip address 10.73.65.66 255.255.255.252
ip ospf 10 area 0
ip mtu 1500

router ospf 10
router-id 10.10.1.86

- A. Option A
- B. Option B
- C. Option C

D. option D

Answer: B

NEW QUESTION 182

- (Exam Topic 4)

What is the MAC address used with VRRP as a virtual address?

- A. 00-00-0C-07-AD-89
- B. 00-00-5E-00-01-0a
- C. 00-07-C0-70-AB-01
- D. 00-C6-41-93-90-91

Answer: B

NEW QUESTION 184

- (Exam Topic 4)

What is a function performed by a web server?

- A. provide an application that is transmitted over HTTP
- B. send and retrieve email from client devices
- C. authenticate and authorize a user's identity
- D. securely store files for FTP access

Answer: A

NEW QUESTION 185

- (Exam Topic 4)

Which property is shared by 10GBase-SR and 10GBase-LR interfaces?

- A. Both require fiber cable media for transmission.
- B. Both require UTP cable media for transmission.
- C. Both use the single-mode fiber type.
- D. Both use the multimode fiber type.

Answer: A

NEW QUESTION 190

- (Exam Topic 4)

Refer to the exhibit.

```
Gateway of last resort is 172.16.2.2 to network 0.0.0.0

    10.0.0.0/8 is variably subnetted, 2 subnets, 2 masks
C    10.10.8.0/28 is directly connected, GigabitEthernet0/0/2
C    10.10.10.0/24 is directly connected, GigabitEthernet0/0/0
L    10.10.10.3.32 is directly connected, GigabitEthernet0/0/0

    172.16.0.0/16 is variably subnetted, 3 subnets, 2 masks
S    172.16.1.33/32 is directly connected, GigabitEthernet0/0/1
C    172.16.2.0/23 is directly connected, GigabitEthernet0/0/1
L    172.16.2.1/32 is directly connected, GigabitEthernet0/0/1
S*  0.0.0.0/0 [1/0] via 172.16.2.2
```

A packet sourced from 10.10.10.1 is destined for 10.10.8.14. What is the subnet mask of the destination route?

- A. 255.255.254.0
- B. 255.255.255.240
- C. 255.255.255.248
- D. 255.255.255.252

Answer: B

NEW QUESTION 194

- (Exam Topic 4)

Refer to the exhibit.

```

R1# show ip route
Codes: C - connected, S - static, I - IGRP, R - RIP, M - mobile, B - BGP
       D - EIGRP, EX - EIGRP external, O - OSPF, IA - OSPF inter area
       N1 - OSPF NSSA external type 1, N2 - OSPF NSSA external type 2
       E1 - OSPF external type 1, E2 - OSPF external type 2, E - EGP
       I - IS-IS, L1 - IS-IS level-1, L2 - IS-IS level-2, * - candidate default
       U - per-user static route, o - ODR
Gateway of last resort is not set
C    172.16.0.0/16 is directly connected, Loopback0
     172.16.0/16 is variably subnetted, 4 subnets, 2 masks
O    172.16.1.3/24 [110/100] via 192.168.7.40, 00:39:08, Serial0
C    172.16.1.0/24 is directly connected, Serial0
O    172.16.1.184/29 [110/5] via 192.168.7.35, 00:39:08, Serial0
O    172.16.3.0/24 [110/10] via 192.168.7.4, 00:39:08, Gigabit Ethernet 0/0
D    172.16.1.0/28 [90/10] via 192.168.7.7, 00:39:08, Gigabit Ethernet 0/0
    
```

Load-balanced traffic is coming in from the WAN destined to a host at 172.16.1.190. Which next-hop is used by the router to forward the request?

- A. 192.168.7.4
- B. 192.168.7.7
- C. 192.168.7.35
- D. 192.168.7.40

Answer: D

NEW QUESTION 196

- (Exam Topic 4)

What is a reason to configure a trunk port that connects to a WLC distribution port?

- A. Eliminate redundancy with a link failure in the data path.
- B. Allow multiple VLAN to be used in the data path.
- C. Provide redundancy if there is a link failure for out-of-band management.
- D. Permit multiple VLANs to provide out-of-band management.

Answer: D

NEW QUESTION 201

- (Exam Topic 4)

What determines the sequence in which materials are planned during the material requirements planning (MRP) run?

- A. The control parameters of the MRP run
- B. The creation date of the materials
- C. The low-level code of the materials
- D. The replenishment lead time of the materials

Answer: C

NEW QUESTION 205

- (Exam Topic 4)

What is a reason to implement LAG on a Cisco WLC?

- A. Increase the available throughput on the link.
- B. Increase security by encrypting management frames
- C. Allow for stateful failover between WLCs
- D. Enable the connected switch ports to use different Layer 2 configurations

Answer: A

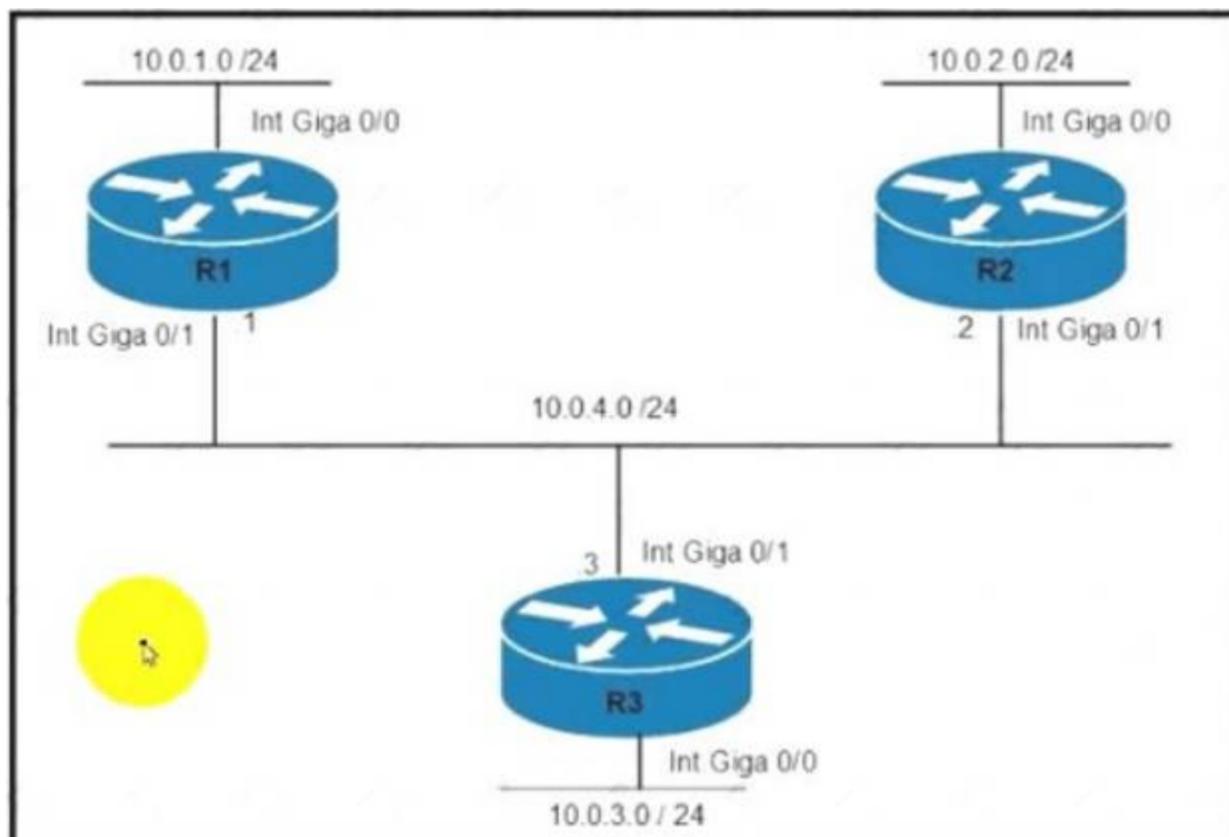
Explanation:

Link Aggregation Group (LAG) is a feature that allows you to bundle multiple physical Ethernet links into a single logical link, and is used to increase the available throughput on the link. LAG is supported on the Cisco Wireless LAN Controller (WLC) and the connected switch ports [1], and can be used to provide greater bandwidth and increased redundancy. It also enables the connected switch ports to use different Layer 2 configurations, such as Spanning Tree Protocol (STP) and Hot Standby Router Protocol (HSRP).

NEW QUESTION 210

- (Exam Topic 4)

Refer to the exhibit.



Router R1 must be configured to reach the 10.0.3.0/24 network from the 10.0.1.0/24 segment. Which command must be used to configure the route?

- A. ip route 10.0.3.0 0.255.255.255 10.0.4.2
- B. route add 10.0.3.0 mask 255.255.255.0 10.0.4.3
- C. ip route 10.0.3.0 255.255.255.0 10.0.4.3
- D. route add 10.0.3.0 0.255.255.255 10.0.4.2

Answer: C

NEW QUESTION 211

- (Exam Topic 4)

Refer to the exhibit.

```

R1
interface GigabitEthernet0/1
 ip address 192.168.12.1 255.255.255.128
 no shutdown
router ospf 1
 network 192.168.12.1 0.0.0.0 area 1

R2
interface GigabitEthernet0/1
 ip address 192.168.12.2 255.255.255.128
 no shutdown
  
```

A network engineer started to configure two directly-connected routers as shown. Which command sequence must the engineer configure on R2 so that the two routers become OSPF neighbors?

- A)


```

router ospf 1
 network 192.168.12.1 0.0.0.0 area 1
      
```
- B)


```

interface GigabitEthernet0/1
 ip ospf 1 area 1
      
```
- C)


```

interface GigabitEthernet0/1
 ip ospf 1 area 0
      
```
- D)


```

router ospf 1
 network 192.168.12.0 0.0.0.127 area 0
      
```

- A. Option A
- B. Option B
- C. Option C
- D. Option D

Answer: D

NEW QUESTION 215

- (Exam Topic 4)

Drag and chop the TCP/IP protocols from the left onto their primary transmission protocols on the right.

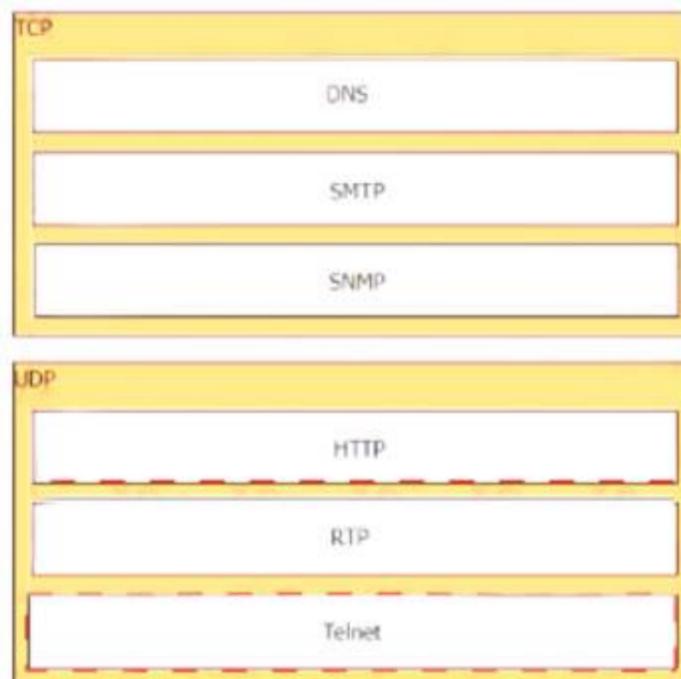
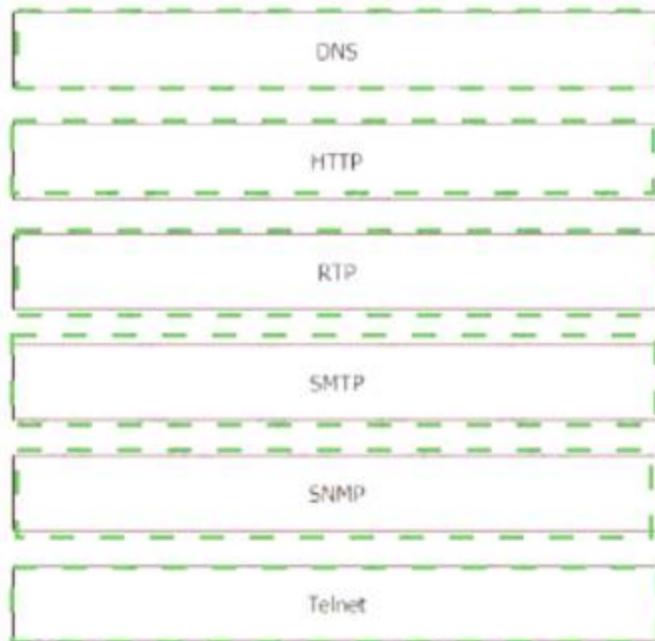
- DNS
- HTTP
- RTP
- SMTP
- SNMP
- Telnet



- A. Mastered
- B. Not Mastered

Answer: A

Explanation:



NEW QUESTION 218

- (Exam Topic 4)

What are two examples of multifactor authentication? (Choose two.)

- A. single sign-on
- B. unique user knowledge
- C. passwords that expire
- D. soft tokens
- E. shared password responsibility

Answer: BD

NEW QUESTION 222

- (Exam Topic 4)

Which device separates networks by security domains?

- A. firewall
- B. access point
- C. intrusion protection system
- D. wireless controller

Answer: A

Explanation:

Firewalls are devices that are used to separate networks into different security domains. They act as a barrier between two networks and control the flow of traffic between them. Firewalls use a set of rules to determine what types of traffic are allowed to pass through and what is blocked. This helps protect a network from malicious traffic and unauthorized access. Additionally, firewalls can be configured to log traffic and provide additional security measures such as packet filtering and stateful inspection.

NEW QUESTION 223

- (Exam Topic 4)

What is a benefit of a point-to-point leased line?

- A. flexibility of design
- B. simplicity of configurator
- C. low cost
- D. full-mesh capability

Answer: B

NEW QUESTION 226

- (Exam Topic 4)

Under which condition is TCP preferred over UDP?

- A. UDP is used when low latency is optimal, and TCP is used when latency is tolerable.
- B. TCP is used when dropped data is more acceptable, and UDP is used when data is accepted out- of-order.
- C. TCP is used when data reliability is critical, and UDP is used when missing packets are acceptable.
- D. UDP is used when data is highly interactive, and TCP is used when data is time-sensitive.

Answer: C

NEW QUESTION 227

- (Exam Topic 4)

Which REST method updates an object in the Cisco DNA Center Intent API?

- A. CHANGE
- B. UPDATE
- C. POST
- D. PUT

Answer: D

Explanation:

PUT is most-often utilized for **update** capabilities, PUT-ing to a known resource URI with the request body containing the newly-updated representation of the original resource. However, PUT can also be used to create a resource in the case where the resource ID is chosen by the client instead of by the server. In other words, if the PUT is to a URI that contains the value of a non-existent resource ID. Again, the request body contains a resource representation. Many feel this is convoluted and confusing. Consequently, this method of creation should be used sparingly, if at all. Alternatively, use POST to create new resources and provide the client-defined ID in the body representation—presumably to a URI that doesn't include the ID of the resource (see POST below). On successful update, return 200 (or 204 if not returning any content in the body) from a PUT. If using PUT for create, return HTTP status 201 on successful creation. A body in the response is optional—providing one consumes more bandwidth. It is not necessary to return a link via a Location header in the creation case since the client already set the resource ID. PUT is not a safe operation, in that it modifies (or creates) state on the server, but it is idempotent. In other words, if you create or update a resource using PUT and then make that same call again, the resource is still there and still has the same state as it did with the first call. If, for instance, calling PUT on a resource increments a counter within the resource, the call is no longer idempotent. Sometimes that happens and it may be enough to document that the call is not idempotent. However, it's recommended to keep PUT requests idempotent. It is strongly recommended to use POST for non-idempotent requests. Examples: <https://www.restapitutorial.com/lessons/httpmethods.html>

NEW QUESTION 229

- (Exam Topic 4)

2001:db8:600d:cafe::123	Global Unicast
fcba:926a:e8e:7a25:b1:c6d2:1a76-8fdc	Link-Local Unicast
fe80::a00:27ff:feeb:89aa	Multicast
ff05::1:3	Unique Local

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

Graphical user interface Description automatically generated

NEW QUESTION 233

- (Exam Topic 4)

```
Cat9300-1# show interface gi/0/1 switchport
Name: Gi1/0/1
Switchport: Enabled
Administrative Mode: trunk
Operational Mode: trunk
Administrative Trunking Encapsulation: dot1q
Operational Trunking Encapsulation: dot1q
Negotiation of Trunking: On
Access Mode VLAN: 1 (default)
Trunking Native Mode VLAN: 321 (VLAN0321)
Administrative Native VLAN tagging: enabled
Trunking VLANs Enabled: 100,200,300
Pruning VLANs Enabled: 2-1001
```

Refer to the exhibit.

A network administrator configures an interface on a new switch so that it connects to interface Gi1/0/1 on switch Cat9300-1. Which configuration must be applied to the new interface?

A)

```
switchport mode trunk
switchport trunk native vian 321
switchport trunk allowed vian 100,200,300
```

B)

```
switchport trunk encapsulation dot1q
switchport trunk native vian 321
switchport trunk allowed vian 100-300
```

C)

```
switchport mode dynamic desirable
switchport trunk native vian 321
switchport trunk allowed vian 100,200,300
```

D)

```
switchport nonegotiate
switchport access vian 321
switchport trunk allowed vian except 2-1001
```

- A. Option A
- B. Option B
- C. Option C
- D. Option D

Answer: A

NEW QUESTION 234

- (Exam Topic 4)

When an access point is seeking to join wireless LAN controller, which message is sent to the AP- Manager interface?

- A. Discovery response
- B. DHCP request
- C. DHCP discover
- D. Discovery request

Answer: D

NEW QUESTION 235

- (Exam Topic 4)

A router has two static routes to the same destination network under the same OSPF process. How does the router forward packets to the destination if the next-hop devices are different?

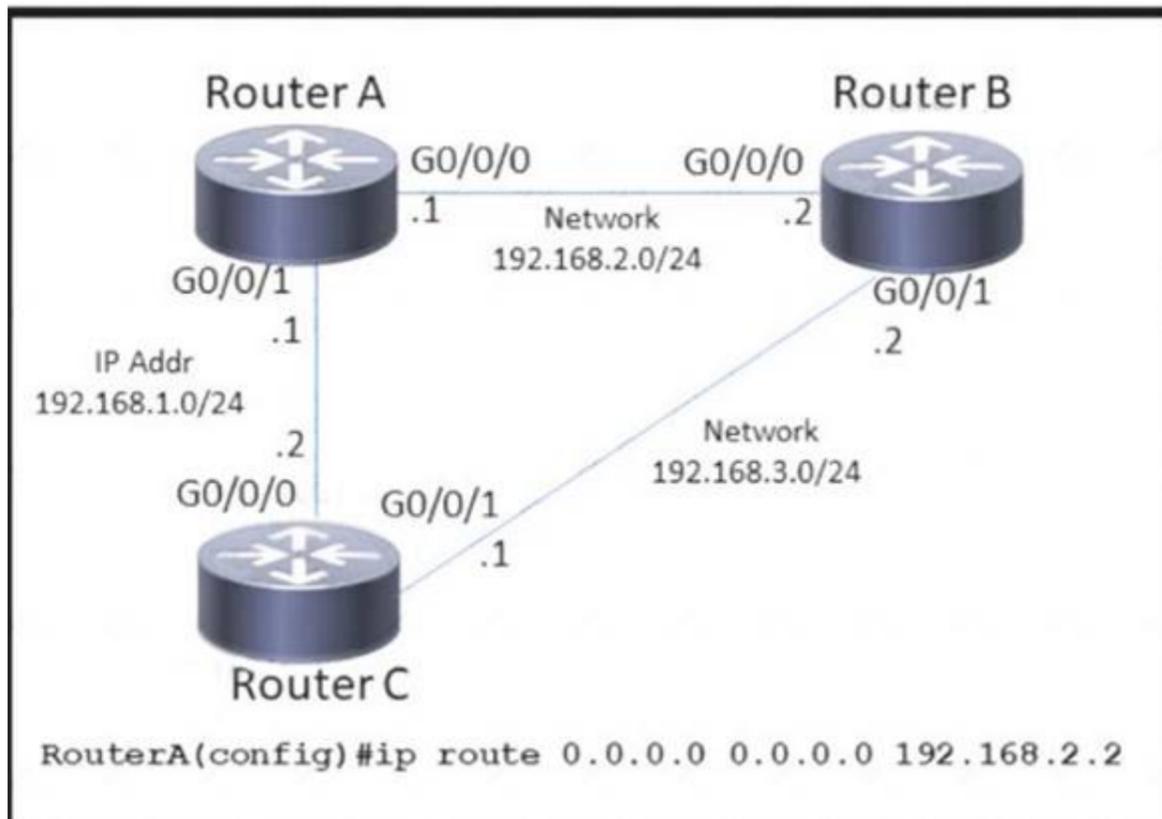
- A. The router chooses the route with the oldest age.
- B. The router load-balances traffic over all routes to the destination.
- C. The router chooses the next hop with the lowest MAC address.
- D. The router chooses the next hop with the lowest IP address.

Answer: B

NEW QUESTION 236

- (Exam Topic 4)

Refer to the exhibit.



Which command must be enable a floating default route on router A?

- A. ip route 0.0.0.0 0.0.0.0 192.168.1.2
- B. ip default-gateway 192.168.2.1
- C. ip route 0.0.0.0 0.0.0.0 192.168.1.2 10
- D. ip route 0.0.0.0 0.0.0.0 192.168.2.1 10

Answer: C

NEW QUESTION 241

- (Exam Topic 4)

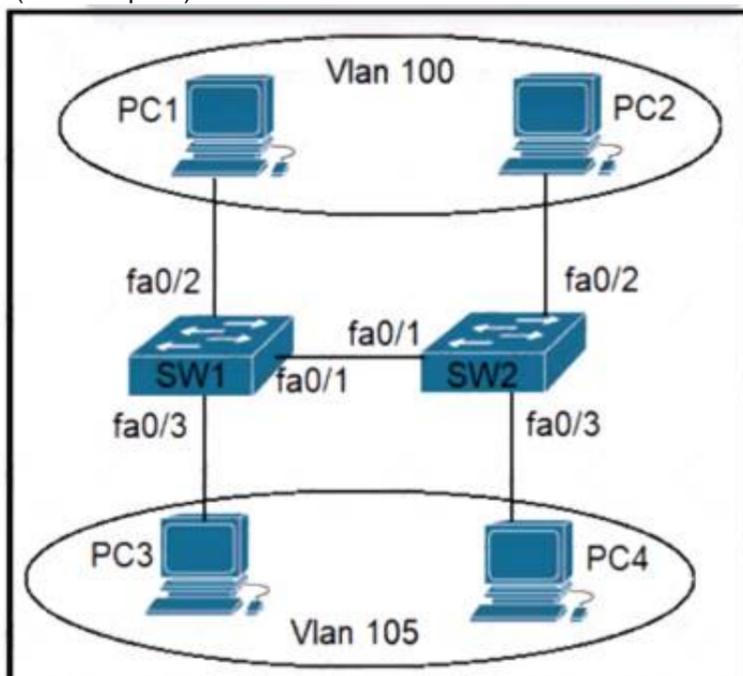
Why would VRRP be implemented when configuring a new subnet in a multivendor environment?

- A. when a gateway protocol is required that support more than two Cisco devices for redundancy
- B. to enable normal operations to continue after a member failure without requiring a change in a host ARP cache
- C. to ensure that the spanning-tree forwarding path to the gateway is loop-free
- D. to interoperate normally with all vendors and provide additional security features for Cisco devices

Answer: A

NEW QUESTION 244

- (Exam Topic 4)



A)

```
Switch(config-if)#switchport mode dynamic
Switch(config-if)#switchport access vlan 100,105
Switch(config-if)#switchport trunk native vlan 1
```

B)

```
Switch(config-if)#switchport mode access
Switch(config-if)#switchport trunk encapsulation dot1q
Switch(config-if)#switchport access vlan 100,105
Switch(config-if)#switchport trunk native vlan 3
```

C)

```
Switch(config-if)#switchport mode trunk
Switch(config-if)#switchport trunk encapsulation isl
Switch(config-if)#switchport trunk allowed vlan 100,105
Switch(config-if)#switchport trunk native vlan 1
```

D)

```
Switch(config-if)#switchport mode trunk
Switch(config-if)#switchport trunk encapsulation dot1q
Switch(config-if)#switchport trunk allowed vlan 100,105
Switch(config-if)#switchport trunk native vlan 3
```

- A. Option A
- B. Option B
- C. Option C
- D. Option D

Answer: B

NEW QUESTION 247

- (Exam Topic 4)

Refer to the exhibit.

```
Last clearing of "show interface" counters never
Input queue: 1/75/1/0 (size/max/drops/flushes); Total output drops: 0
Queueing strategy: random early detection (RED)
Output queue : 0/40 (size/max)
5 minute input rate 1000 bits/sec, 2 packets/sec
5 minute output rate 0 bits/sec, 0 packets/sec
 7558065 packets input, 783768942 bytes, 1 no buffer
Received 8280963 broadcasts, 0 runts, 0 giants, 1 throttles
15 input errors, 14278 CRC, 0 frame, 0 overrun, 3 ignored
0 input packets with dribble condition detected
798092 packets output, 50280266 bytes, 0 underruns
0 output errors, 15000 collisions, 0 interface resets
0 babbles, 0 late collision, 179 deferred
0 lost carrier, 0 no carrier
0 output buffer failures, 0 output buffers swapped out
```

An administrator received a call from a branch office regarding poor application performance hosted at the headquarters. Ethernet 1 is connected between Router1 and the LAN switch. What identifies the issue?

- A. The QoS policy is dropping traffic.
- B. There is a duplex mismatch.
- C. The link is over utilized.
- D. The MTU is not set to the default value.

Answer: C

NEW QUESTION 248

- (Exam Topic 4)

What is the difference between 1000BASE-LX/LH and 1000BASE-ZX interfaces?

- A. 1000BASE-ZX is supported on links up to 1000km, and 1000BASE-LX/LH operates over links up to 70 km.
- B. 1000BASE-LX/LH interoperates with multimode and single-mode fiber, and 1000BASE-ZX needs a conditioning patch cable with a multimode.
- C. 1000BASE-LX/LH is supported on links up to 10km, and 1000BASE-ZX operates over links up to 70 km
- D. 1000BASE-ZX interoperates with dual-rate 100M/1G 10Km SFP over multimode fiber, and 1000BASE-LX/LH supports only single-rate.

Answer: C

NEW QUESTION 253

- (Exam Topic 4)

Which encryption method is used by WPA3?

- A. PSK
- B. TKIP
- C. SAE
- D. AES

Answer: D

NEW QUESTION 256

- (Exam Topic 4)

Which protocol must be implemented to support separate authorization and authentication solutions for wireless APs?

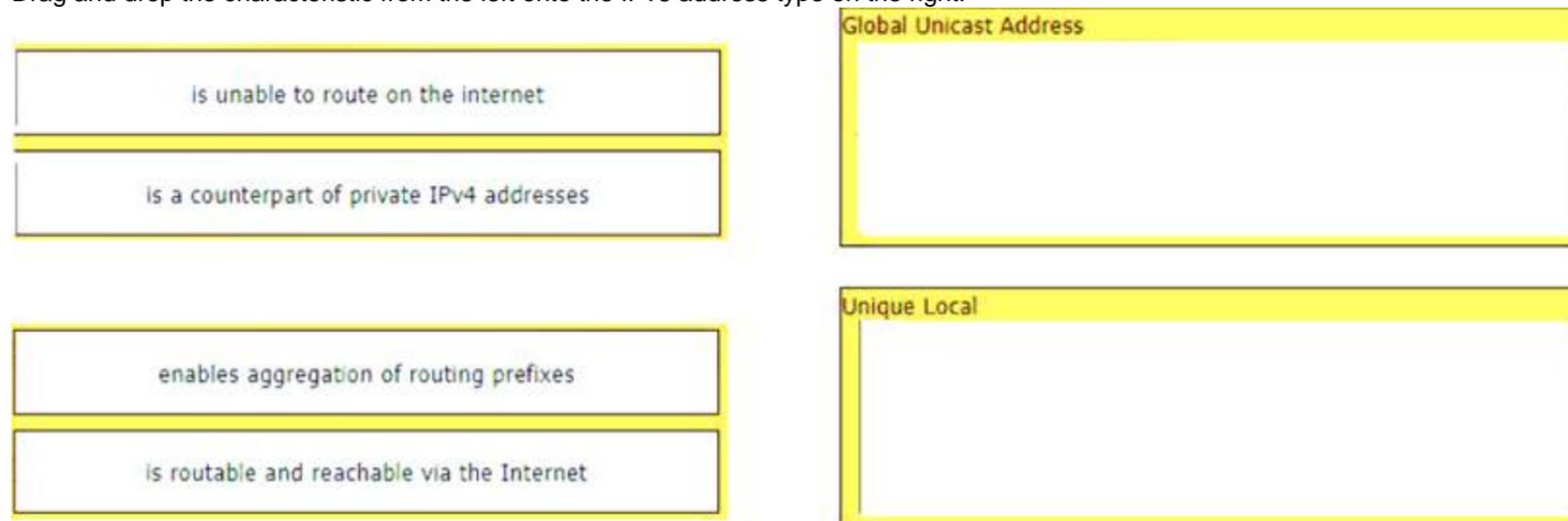
- A. RADIUS
- B. TACACS+
- C. 802.1X
- D. Kerberos

Answer: A

NEW QUESTION 258

- (Exam Topic 4)

Drag and drop the characteristic from the left onto the IPv6 address type on the right.



The interface shows four characteristics on the left and two IPv6 address types on the right. The characteristics are:

- is unable to route on the internet
- is a counterpart of private IPv4 addresses
- enables aggregation of routing prefixes
- is routable and reachable via the Internet

The IPv6 address types are:

- Global Unicast Address
- Unique Local

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

Graphical user interface, application Description automatically generated

NEW QUESTION 262

- (Exam Topic 4)

Which two protocols are used by an administrator for authentication and configuration on access points?

- A. Kerberos
- B. 802.1Q
- C. 802.1x
- D. TACACS+
- E. RADIUS

Answer: DE

NEW QUESTION 264

- (Exam Topic 4)

An engineer is installing a new wireless printer with a static IP address on the Wi-Fi network. Which feature must be enabled and configured to prevent connection issues with the printer?

- A. client exclusion
- B. passive client
- C. DHCP address assignment
- D. static IP tunneling

Answer: C

NEW QUESTION 265

- (Exam Topic 4)

Refer to the exhibit.

When router R1 receives a packet with destination IP address 10.56.0 62. through which interface does it route the packet?

- A. Null0
- B. Vlan58
- C. Vlan60
- D. Vlan59

Answer: B

NEW QUESTION 270

- (Exam Topic 4)

Drag and drop the SNMP components from the left onto the description on the right.

agent	collection of uniquely identifiable objects whose state can be interrogated over SNMP
managed device	network node controlled by SNMP
MIB	system that runs monitoring applications and controls network nodes
NMS	SNMP component that captures and translates device and network data

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

- 1-2
- 2-3
- 3-1

NEW QUESTION 274

- (Exam Topic 4)

Why is a first-hop redundancy protocol implemented?

- A. to protect against default gateway failures
- B. to prevent loops in a network
- C. to enable multiple switches to operate as a single unit
- D. to provide load-sharing for a multilink segment

Answer: A

NEW QUESTION 278

- (Exam Topic 4)

Drag and drop the characteristic from the left onto the IPv6 address type on the right.

is publicly routable in the same way as IPv4 addresses	Global Unicast Address
serves as the next-hop addresses	
required on all IPv6 devices	Link-Local Address
provides for one-to-one communication	

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

Graphical user interface, application Description automatically generated

NEW QUESTION 280

- (Exam Topic 4)

What is the put method within HTTP?

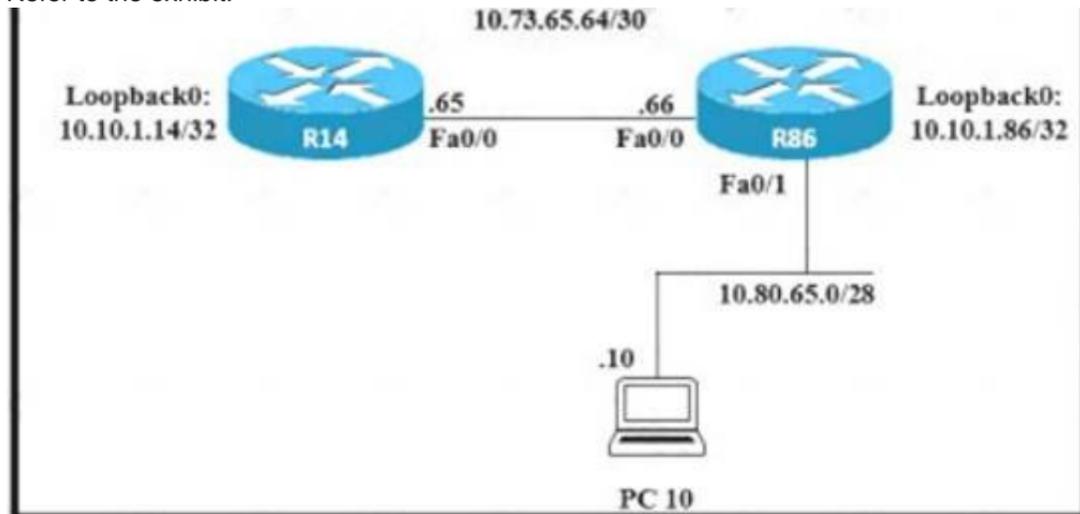
- A. It is a read-only operation.
- B. It is a nonidempotent operation.
- C. It replaces data at the destination.
- D. It displays a web site.

Answer: D

NEW QUESTION 281

- (Exam Topic 4)

Refer to the exhibit.



Router R14 is in the process of being configured. Which configuration must be used to establish a host route to PC 10?

- A. ip route 10.80.65.10 255.255.255.254 10.80.65.1
- B. ip route 10.8065.10 255.255.255.255 10.73.65.66
- C. ip route 1073.65.65 255.0.0.0 10.80.65.10
- D. ip route 10.73.65.66 0.0.0.255 10.80.65.10

Answer: B

NEW QUESTION 284

- (Exam Topic 4)

What is the default port-security behavior on a trunk link?

- A. It causes a network loop when a violation occurs.
- B. It disables the native VLAN configuration as soon as port security is enabled.
- C. It places the port in the err-disabled state if it learns more than one MAC address.
- D. It places the port in the err-disabled slate after 10 MAC addresses are statically configured.

Answer: A

NEW QUESTION 289

- (Exam Topic 4)

An engineer is configuring a switch port that is connected to a VoIP handset. Which command must the engineer configure to enable port security with a manually assigned MAC address of abcd-bod on voice VLAN 4?

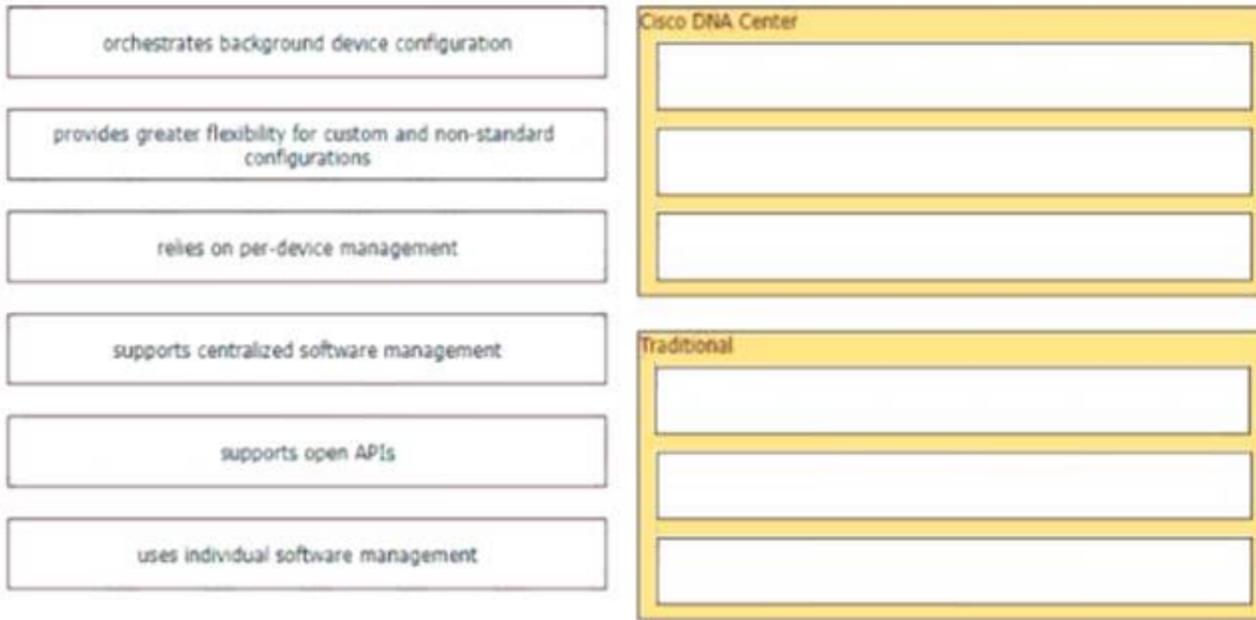
- A. switchport port-security mac-address abcd.abcd.abcd
- B. switchport port-security mac-address abed.abed.abed vlan 4
- C. switchport port-security mac-address sticky abcd.abcd.abcd vlan 4
- D. switchport port-security mac-address abcd.abcd.abcd vlan voice

Answer: A

NEW QUESTION 291

- (Exam Topic 4)

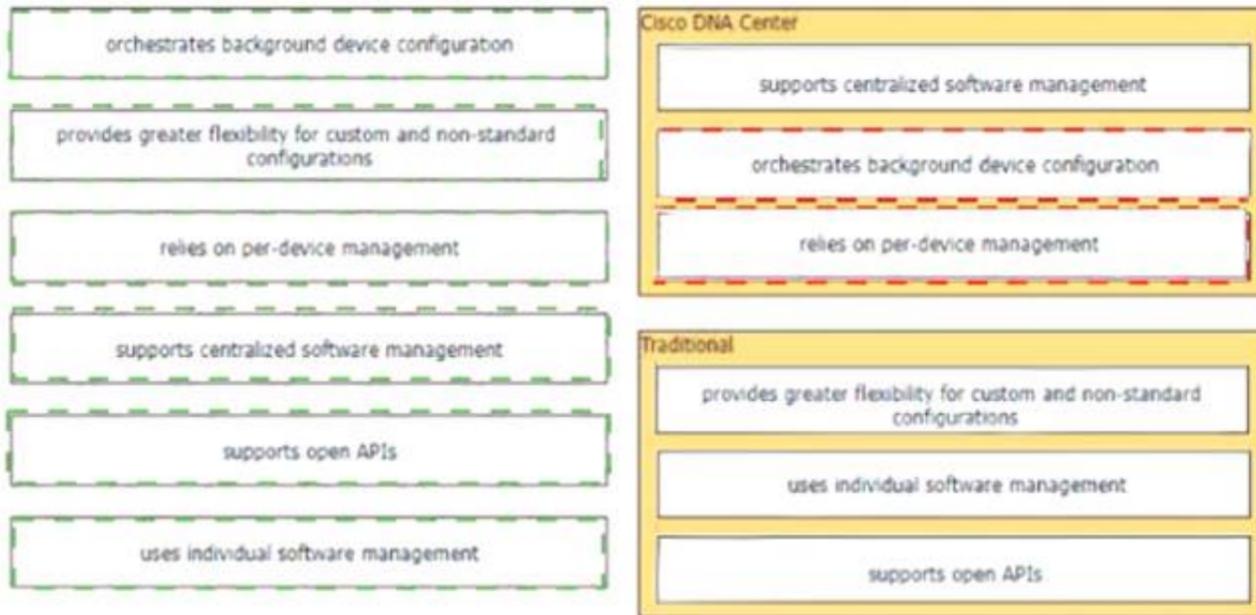
Drag and drop the characteristics of device-management technologies from the left onto the corresponding deployment types on the right.



- A. Mastered
- B. Not Mastered

Answer: A

Explanation:



NEW QUESTION 293

- (Exam Topic 3)

Which QoS traffic handling technique retains excess packets in a queue and reschedules these packets for later transmission when the configured maximum bandwidth has been surpassed?

- A. weighted random early detection
- B. traffic policing
- C. traffic shaping
- D. traffic prioritization

Answer: C

NEW QUESTION 296

- (Exam Topic 4)

What are two advantages of implementing a controller-based architecture instead of a traditional network architecture? (Choose two.)

- A. It allows for seamless connectivity to virtual machines.
- B. It supports complex and high-scale IP addressing schemes.
- C. It enables configuration task automation.
- D. It provides increased scalability and management options.
- E. It increases security against denial-of-service attacks.

Answer: CD

NEW QUESTION 297

- (Exam Topic 4)

What is the purpose of using First Hop Redundancy Protocol on a specific subnet?

- A. ensures a loop-free physical topology
- B. filters traffic based on destination IP addressing
- C. sends the default route to the hosts on a network

D. forwards multicast hello messages between routers

Answer: D

NEW QUESTION 300

- (Exam Topic 4)

Which channel-group mode must be configured when multiple distribution interfaces connected to a WLC are bundled?

- A. Channel-group mode passive.
- B. Channel-group mode on.
- C. Channel-group mode desirable.
- D. Channel-group mode active.

Answer: B

NEW QUESTION 303

- (Exam Topic 4)

Drag and drop the Ansible terms from the left onto the right.

control node	collection of actions to perform on target devices, expressed in YAML format
inventory	device with Ansible installed that manages target devices
managed node	network device, without Ansible installed, upon which commands can be executed
module	specific action to be performed on one or more target devices
playbook	unit of Python code to be executed
task	Ansible file that defines the target devices upon which commands and tasks can be executed

- A. Mastered
- B. Not Mastered

Answer: A

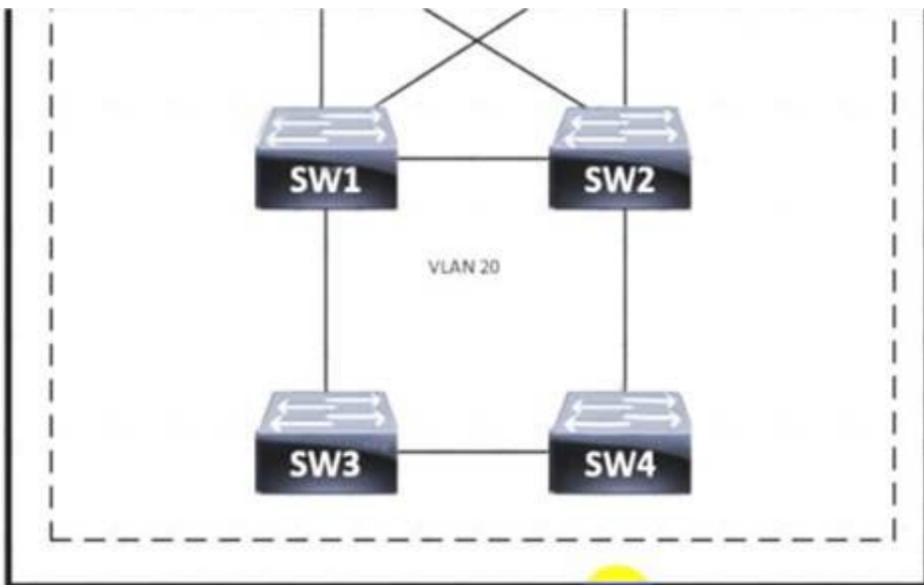
Explanation:

control node	inventory
inventory	playbook
managed node	module
module	task
playbook	managed node
task	control node

NEW QUESTION 305

- (Exam Topic 3)

Refer to the exhibit.



Which switch becomes the root of a spanning tree for VLAN 20 if all li links are of equal speed?

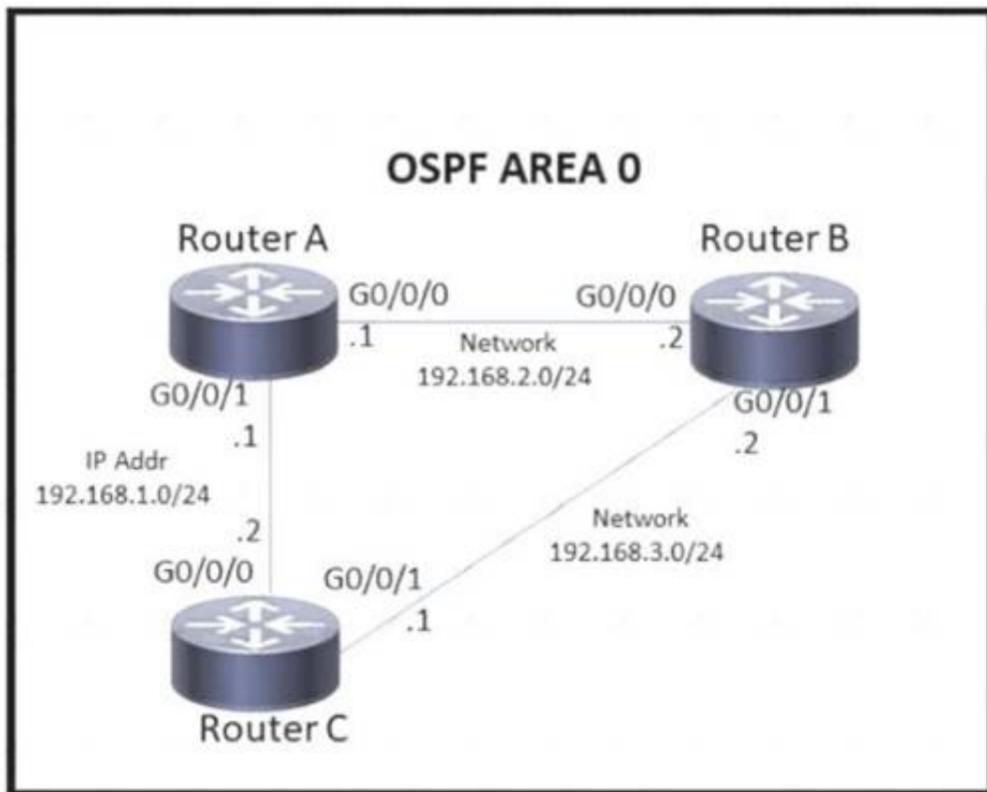
SW1 = 24596 0018.184e.3c00
 SW2 = 28692 004a.14e5.4077
 SW3 = 32788 0022.55cf.dd00
 SW4 = 64000 0041.454d.407f

- A. SW1
- B. SW2
- C. SW3
- D. SW4

Answer: C

NEW QUESTION 309

- (Exam Topic 3)
 Refer to the exhibit.



Which action must be taken to ensure that router A is elected as the DR for OSPF area 0?

- A. Configure the OSPF priority on router A with the lowest value between the three routers.
- B. Configure router B and router C as OSPF neighbors of router A.
- C. Configure the router A interfaces with the highest OSPF priority value within the area.
- D. Configure router A with a fixed OSPF router ID

Answer: C

NEW QUESTION 311

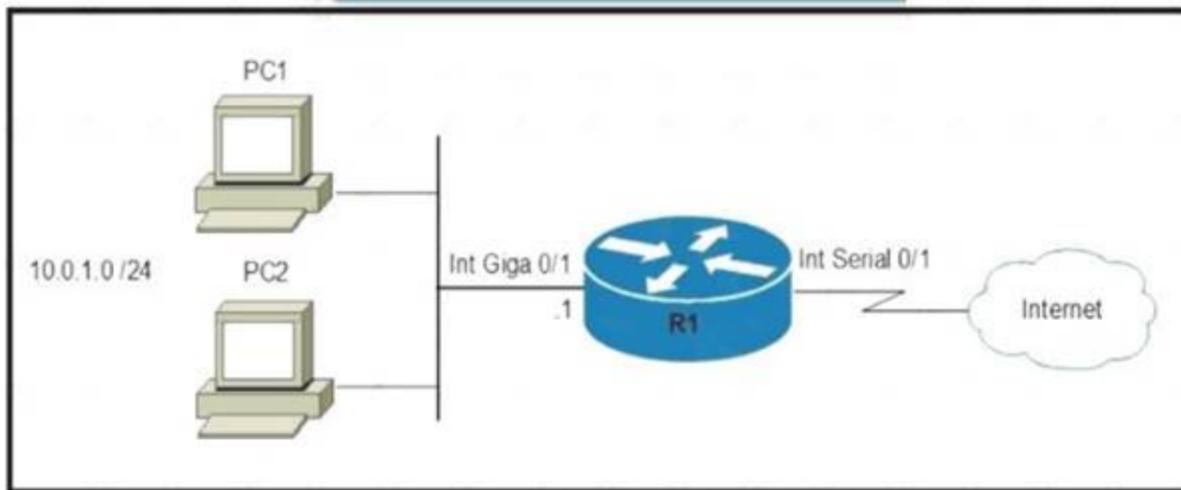
- (Exam Topic 3)
 Which QoS per-hop behavior changes the value of the ToS field in the IPv4 packet header?

- A. shaping
- B. classification
- C. policing
- D. marking

Answer: D

NEW QUESTION 316

- (Exam Topic 3)
 Refer to the exhibit.



Which two commands must be configured on router R1 to enable the router to accept secure remote-access connections? (Choose two)

- A. transport input telnet
- B. crypto key generate rsa
- C. ip ssh pubkey-chain
- D. login console
- E. username cisco password 0 Cisco

Answer: BE

NEW QUESTION 319

- (Exam Topic 3)
 Refer to the exhibit.

```
CPE# show ip route
      192.168.1.0/24 is variably subnetted, 3 subnets, 3 masks
B    192.168.1.0/24 [20/1] via 192.168.12.2, 00:00:06
R    192.168.1.128/25 [120/5] via 192.168.13.3, 00:02:35, Ethernet0/1
O    192.168.1.192/26 [110/11] via 192.168.14.4, 00:02:23, Ethernet0/2
D    192.168.1.224/27 [90/1024640] via 192.168.15.5, 00:01:40, Ethernet0/3
```

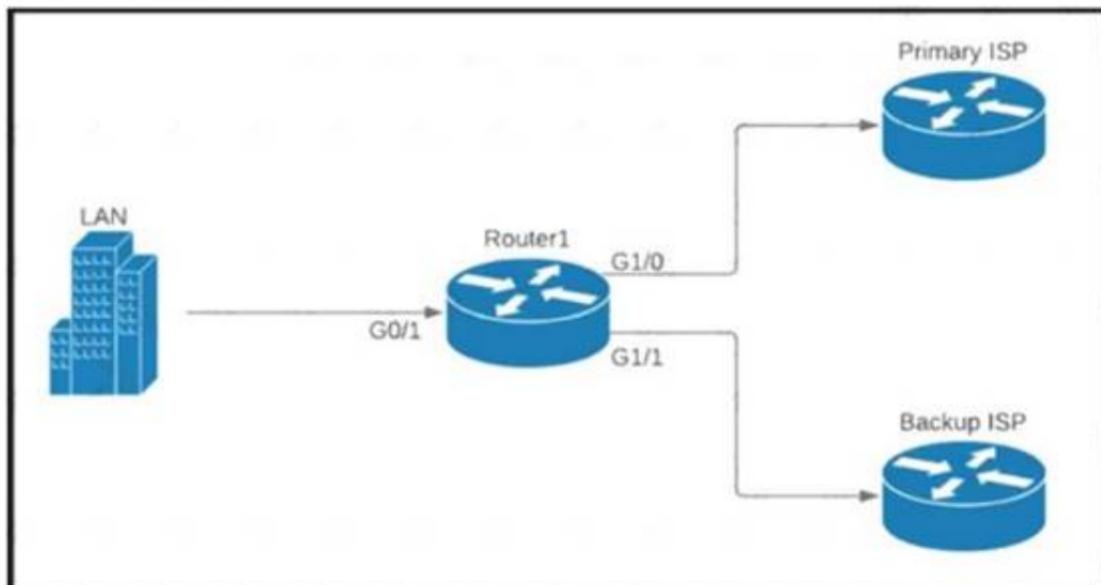
All traffic enters the CPE router from interface Serial0/3 with an IP address of 192.168.50.1. Web traffic from the WAN is destined for a LAN network where servers are load-balanced. An IP packet with a destination address of the HTTP virtual IP of 192.168.1.250 must be forwarded. Which routing table entry does the router use?

- A. 192.168.1.0/24 via 192.168.12.2
- B. 192.168.1.128/25 via 192.168.13.3
- C. 192.168.1.192/26 via 192.168.14.4
- D. 192.168.1.224/27 via 192.168.15.5

Answer: B

NEW QUESTION 323

- (Exam Topic 3)
 Refer to the exhibit.



A company is configuring a failover plan and must implement the default routes in such a way that a floating static route will assume traffic forwarding when the primary link goes down. Which primary route configuration must be used?

- A. ip route 0.0.0.0 0.0.0.0 192.168.0.2 GigabitEthernet0/0
- B. ip route 0.0.0.0 0.0.0.0 192.168.0.2 tracked
- C. ip route 0.0.0.0 0.0.0.0 192.168.0.2 floating

D. ip route 0.0.0.0 0.0.0.0 192.168.0.2

Answer: B

NEW QUESTION 325

- (Exam Topic 3)

Which WLC management connection type is vulnerable to man-in-the-middle attacks?

- A. SSH
- B. HTTPS
- C. Telnet
- D. console

Answer: C

NEW QUESTION 327

- (Exam Topic 3)

Drag and drop the functions of SNMP fault-management from the left onto the definitions on the right.

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

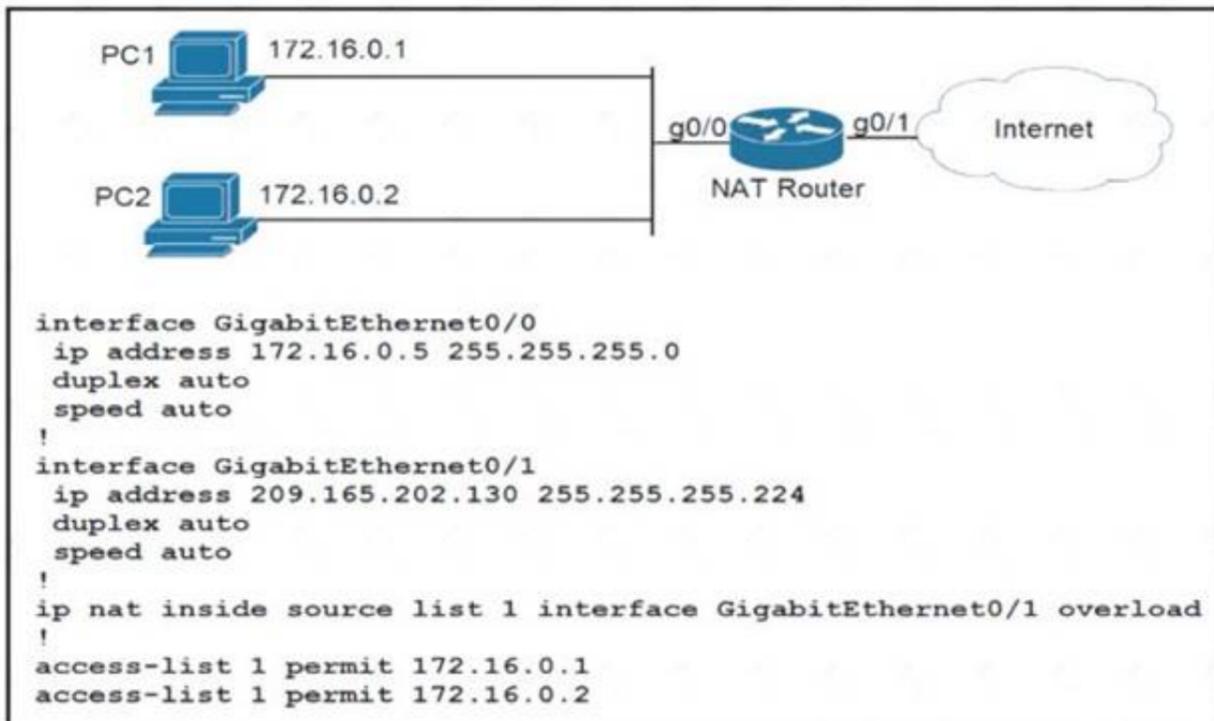
Table Description automatically generated

event correlation and aggregation
fault detection
fault diagnosis and isolation
problem resolution
restoration of service

NEW QUESTION 330

- (Exam Topic 3)

Refer to the exhibit.



How should the configuration be updated to allow PC1 and PC2 access to the Internet?

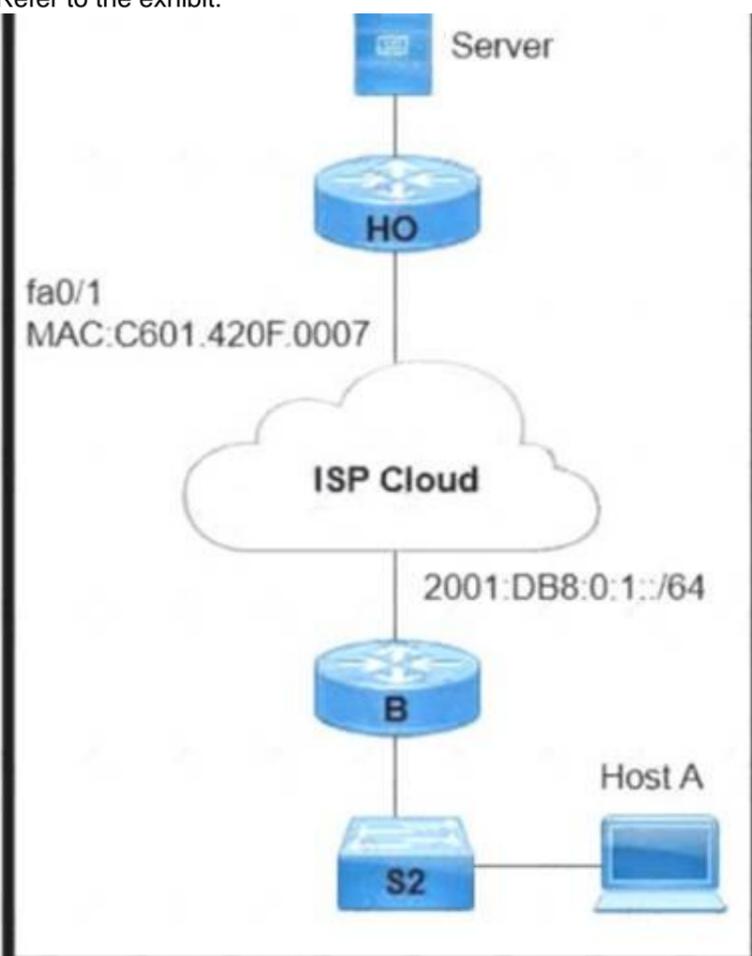
- A. Modify the configured number of the second access list.
- B. Add either the ip nat {inside|outside} command under both interfaces.
- C. Remove the overload keyword from the ip nat inside source command.
- D. Change the ip nat inside source command to use interface GigabitEthernet0/0.

Answer: B

NEW QUESTION 331

- (Exam Topic 3)

Refer to the exhibit.



An engineer is configuring the HO router. Which IPv6 address configuration must be applied to the router fa0/1 interface for the router to assign a unique 64-bit IPv6 address to itself?

- A. ipv6 address 2001:DB8:0:1:C601:42FF:FE0F:7/64
- B. ipv6 address 2001:DB8:0:1:C601:42FE:800F:7/64
- C. ipv6 address 2001 :DB8:0:1:FFFF:C601:420F:7/64
- D. iov6 address 2001 :DB8:0:1:FE80:C601:420F:7/64

Answer: A

NEW QUESTION 335

- (Exam Topic 3)

Drag and drop the TCP or UDP details from the left onto their corresponding protocols on the right.

transmitted based on data contained in the packet without the need for a data channel	TCP
requires the client and the server to establish a connection before sending the packet	
used to reliably share files between devices	UDP
appropriate for streaming operations with minimal latency	

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

TCP	
requires the client and the server to establish a connection before sending the packet	
used to reliably share files between devices	
UDP	
transmitted based on data contained in the packet without the need for a data channel	
appropriate for streaming operations with minimal latency	

NEW QUESTION 340

- (Exam Topic 3)

A Cisco engineer must configure a single switch interface to meet these requirements

- accept untagged frames and place them in VLAN 20
- accept tagged frames in VLAN 30 when CDP detects a Cisco IP phone

Which command set must the engineer apply?

- A)
 - switchport mode dynamic desirable
 - switchport access vlan 20
 - switchport trunk allowed vlan 30
 - switchport voice vlan 30
- B)
 - switchport mode dynamic auto
 - switchport trunk native vlan 20
 - switchport trunk allowed vlan 30
 - switchport voice vlan 30
- C)
 - switchport mode access
 - switchport access vlan 20
 - switchport voice vlan 30
- D)
 - switchport mode trunk
 - switchport access vlan 20
 - switchport voice vlan 30

- A. Option A
- B. Option B
- C. Option C
- D. Option D

Answer: C

NEW QUESTION 341

- (Exam Topic 3)

An engineer is configuring remote access to a router from IP subnet 10.139.58.0/28. The domain name, crypto keys, and SSH have been configured. Which configuration enables the traffic on the destination router?

A)

```
interface FastEthernet0/0
  ip address 10.122.49.1 255.255.255.240
  access-group 120 in
```

```
ip access-list extended 120
  permit tcp 10.139.58.0 255.255.255.248 any eq 22
```

B)

```
interface FastEthernet0/0
  ip address 10.122.49.1 255.255.255.252
  ip access-group 110 in
```

```
ip access-list extended 110
  permit tcp 10.139.58.0 0.0.0.15 host 10.122.49.1 eq 22
```

C)

```
interface FastEthernet0/0
  ip address 10.122.49.1 255.255.255.248
  ip access-group 10 in
```

```
ip access-list standard 10
  permit udp 10.139.58.0 0.0.0.7 host 10.122.49.1 eq 22
```

D)

```
interface FastEthernet0/0
  ip address 10.122.49.1 255.255.255.252
  ip access-group 105 in
```

```
ip access-list standard 105
  permit tcp 10.139.58.0 0.0.0.7 eq 22 host 10.122.49.1
```

- A. Option A
- B. Option B
- C. Option C
- D. Option D

Answer: B

NEW QUESTION 343

- (Exam Topic 3)

What is one reason to implement LAG on a Cisco WLC?

- A. to increase security and encrypt management frames
- B. to provide link redundancy and load balancing
- C. to allow for stateful and link-state failover
- D. to enable connected switch ports to failover and use different VLANs

Answer: B

NEW QUESTION 347

- (Exam Topic 3)

Refer to the exhibit.

```

Hardware is ISR4331-3x1GE, address is 5486.bc25.1f70 (bia 5486.bc25.1f70)
Description: << WAN Link >>
Internet address is 192.0.2.2/30
MTU 1500 bytes, BW 1000000 Kbit/sec, DLY 10 usec,
  reliability 255/255, txload 1/255, rxload 1/255
Encapsulation ARPA, loopback not set
Keepalive not supported
Full Duplex, 1000Mbps, link type is auto, media type is RJ45
output flow-control is off, input flow-control is off
ARP type: ARPA, ARP Timeout 04:00:00
Last input 00:00:00, output 00:00:11, output hang never
Last clearing of "show interface" counters never
Input queue: 0/375/0/0 (size/max/drops/flushes); Total output drops: 0
Queueing strategy: fifo
Output queue: 0/40 (size/max)
5 minute input rate 7000 bits/sec, 4 packets/sec
5 minute output rate 4000 bits/sec, 4 packets/sec
 22579370 packets input, 8825545968 bytes, 0 no buffer
  Received 67 broadcasts (0 IP multicasts)
   0 runts, 0 giants, 0 throttles
 3612699 input errors, 3612699 CRC, 0 frame, 0 overrun, 0 ignored
   0 watchdog, 10747057 multicast, 0 pause input
 12072167 packets output, 1697953637 bytes, 0 underruns
   0 output errors, 0 collisions, 1 interface resets
    6 unknown protocol drops
    0 babbles, 0 late collision, 0 deferred
    5 lost carrier, 0 no carrier, 0 pause output
    0 output buffer failures, 0 output buffers swapped out
    
```

What is a reason for poor performance on the network interface?

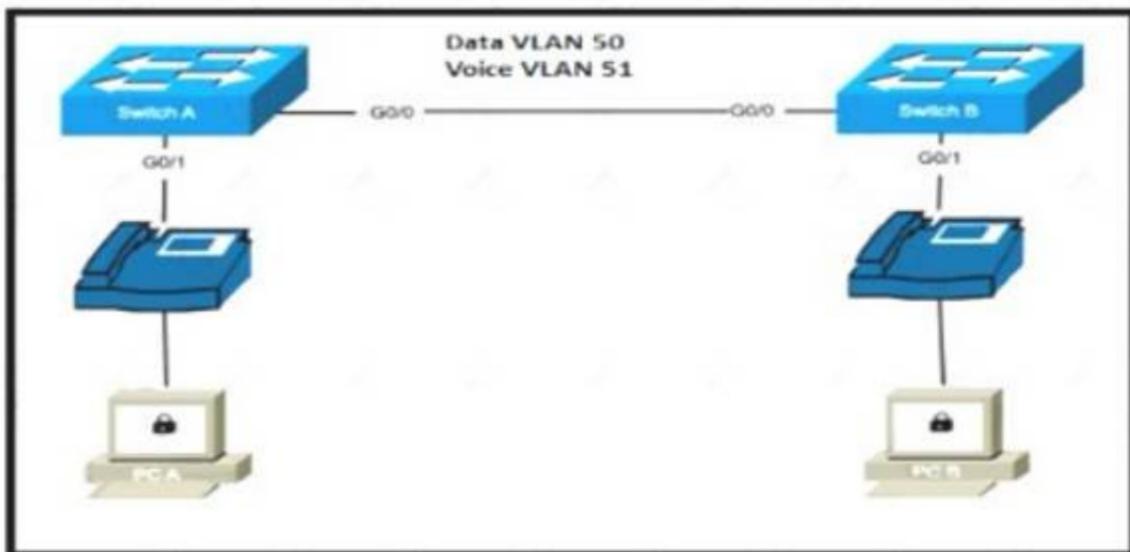
- A. The interface is receiving excessive broadcast traffic.
- B. The cable connection between the two devices is faulty.
- C. The interface is operating at a different speed than the connected device.
- D. The bandwidth setting of the interface is misconfigured

Answer: A

NEW QUESTION 350

- (Exam Topic 3)

Refer to the exhibit.



Switch A is newly configured. All VLANs are present in the VLAN database. The IP phone and PC A on Gi0/1 must be configured for the appropriate VLANs to establish connectivity between the PCs. Which command set fulfills the requirement?

- A)


```

SwitchA(config-if)#switchport mode access
SwitchA(config-if)#switchport access vlan 50
SwitchA(config-if)#switchport voice vlan 51
      
```
- B)


```

SwitchA(config-if)#switchport mode access
SwitchA(config-if)#switchport access vlan 50
SwitchA(config-if)#switchport voice vlan untagged
      
```
- C)


```

SwitchA(config-if)#switchport mode trunk
SwitchA(config-if)#switchport trunk allowed vlan add 50, 51
SwitchA(config-if)#switchport voice vlan dot1p
      
```
- D)


```

SwitchA(config-if)#switchport mode trunk
SwitchA(config-if)#switchport trunk allowed vlan 50, 51
SwitchA(config-if)#mls qos trust cos
      
```

- A. Option A
- B. Option B
- C. Option C

D. Option D

Answer: A

NEW QUESTION 352

- (Exam Topic 3)

Refer to the exhibit.

```
A# show ip ospf neighbor
Neighbor ID Pri State Dead Time Address Interface
172.1.1.1 1 EXCHANGE/ - 00:00:36 172.16.32.1 Serial0.1
```

An engineer assumes a configuration task from a peer Router A must establish an OSPF neighbor relationship with neighbor 172.1.1.1. The output displays the status of the adjacency after 2 hours. What is the next step in the configuration process for the routers to establish an adjacency?

- A. Configure router A to use the same MTU size as router B.
- B. Set the router B OSPF ID to a nonhost address.
- C. Configure a point-to-point link between router A and router B.
- D. Set the router B OSPF ID to the same value as its IP address

Answer: B

NEW QUESTION 353

- (Exam Topic 3)

Refer to the exhibit.

```
TenGigabitEthernet0/0/0 is up, line protocol is up
Hardware is BUILT-IN-2T+6X1GE, address is 74a0.2f7a.0123 (bia 74a0.2f7a.0123)
Description: Uplink
Internet address is 10.1.1.1/24
MTU 1500 bytes, BW 10000000 Kbit/sec, DLY 10 usec,
reliability 255/255, txload 1/255, rxload 1/255
Encapsulation ARPA, loopback not set
Keepalive not supported
Full Duplex, 10000Mbps, link type is force-up, media type is unknown media type
output flow-control is on, input flow-control is on
ARP type: ARPA, ARP Timeout 04:00:00
Last input 00:00:00, output 00:05:40, output hang never
Last clearing of "show interface" counters never
Input queue: 0/375/0/0 (size/max/drops/flushes): Total output drops: 0
Queueing strategy: fifo
Output queue: 0/40 (size/max)
5 minute input rate 6160000 bits/sec, 1113 packets/sec
5 minute output rate 11213000 bits/sec, 1553 packets/sec
12662416065 packets input, 12607032232894 bytes, 0 no buffer
Received 14117163 broadcasts (0 IP multicasts)
0 runs, 0 giants, 0 throttles
0 input errors, 0 CRC, 0 frame, 0 overrun, 0 ignored
0 watchdog, 26271385 multicast, 0 pause input
7907779058 packets output, 5073750426832 bytes, 0 underruns
0 output errors, 8662416065 collisions, 1 interface resets
0 unknown protocol drops
0 babbles, 0 late collision, 0 deferred
0 lost carrier, 0 no carrier, 0 pause output
0 output buffer failures, 0 output buffers swapped out
1 carrier transitions
```

Traffic that is flowing over interface TenGigabitEthernet0/0 experiences slow transfer speeds. What is the reason for the issue?

- A. heavy traffic congestion
- B. a duplex incompatibility
- C. a speed conflict
- D. queuing drops

Answer: C

NEW QUESTION 357

- (Exam Topic 3)

Refer to the exhibit.

```

209.165.201.0/27 is subnetted, 1 subnets
B 209.165.201.0 [20/0] via 10.10.12.2, 02:26:33
209.165.202.0/27 is subnetted, 1 subnets
B 209.165.202.128 [20/0] via 10.10.12.2, 02:26:03
10.0.0.0/8 is variably subnetted, 8 subnets, 4 masks
C 10.10.10.0/28 is directly connected, GigabitEthernet0/0
C 10.10.11.0/30 is directly connected, FastEthernet2/0
C 10.10.12.0/30 is directly connected, GigabitEthernet0/1
O 10.10.13.0/25 [110/2] via 10.10.10.1, 00:00:04, GigabitEthernet0/0
O 10.10.13.128/28 [110/2] via 10.10.10.1, 00:00:04, GigabitEthernet0/0
O 10.10.13.144/28 [110/2] via 10.10.10.1, 00:00:04, GigabitEthernet0/0
O 10.10.13.160/29 [110/2] via 10.10.10.1, 00:00:04, GigabitEthernet0/0
O 10.10.13.208/29 [110/2] via 10.10.10.1, 00:00:04, GigabitEthernet0/0
S* 0.0.0.0/0 [1/0] via 10.10.11.2
    
```

Drag and drop the prefix lengths from the left onto the corresponding prefixes on the right Not all prefixes are used

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

Diagram Description automatically generated with low confidence

NEW QUESTION 362

- (Exam Topic 3)

Refer to the exhibit.

```

SW#show run
Building configuration...
!
interface FastEthernet0/1
 switchport access vlan 15
!
end
    
```

All VLANs are present in the VLAN database. Which command sequence must be applied to complete the configuration?

- A. Interface FastEthernet0/1 switchport trunk native vlan 10 switchport trunk allowed vlan 10,15
- B. Interface FastEthernet0/1 switchport mode trunk switchport trunk allowed vlan 10,15
- C. interface FastEthernet0/1 switchport mode access switchport voice vlan 10
- D. Interface FastEthernet0/1 switchport trunk allowed vlan add 10 vlan 10 private-vlan isolated

Answer: C

NEW QUESTION 367

- (Exam Topic 3)

A Cisco engineer is configuring a factory-default router with these three passwords:

- The user EXEC password for console access is p4ssw0rd1
- The user EXEC password for Telnet access is s3cr3t2
- The password for privileged EXEC mode is prn4t3p4ss

Which command sequence must the engineer configured

A)

```
enable secret priv4t3p4ss
!
line con 0
password login p4ssw0rd1
!
line vty 0 15
password login s3cr3t2
login
```

B)

```
enable secret privilege 15 priv4t3p4ss
!
line con 0
password p4ssw0rd1
login
!
line vty 0 15
password s3cr3t2
login
```

C)

```
enable secret priv4t3p4ss
!
line con 0
password p4ssw0rd1
login
!
line vty 0 15
password s3cr3t2
login
```

D)

```
enable secret priv4t3p4ss
!
line con 0
```

- A. Option A
- B. Option B
- C. Option C
- D. Option D

Answer: B

NEW QUESTION 369

- (Exam Topic 3)

An engineer is tasked to configure a switch with port security to ensure devices that forward unicasts multicasts and broadcasts are unable to flood the port The port must be configured to permit only two random MAC addresses at a time Drag and drop the required configuration commands from the left onto the sequence on the right Not all commands are used.

switchport mode access

switchport port-security

switchport port-security mac-address 0060.3EED.77AB

switchport port-security mac-address 00D0.D3ED.622A

switchport port-security mac-address sticky

switchport port-security maximum 2

switchport port-security violation shutdown

1

2

3

4

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

Diagram Description automatically generated

NEW QUESTION 372

- (Exam Topic 3)

What is the function of the controller in a software-defined network?

- A. multicast replication at the hardware level
- B. fragmenting and reassembling packets
- C. making routing decisions
- D. forwarding packets

Answer: C

NEW QUESTION 377

- (Exam Topic 3)

What is the purpose of the ip address dhcp command?

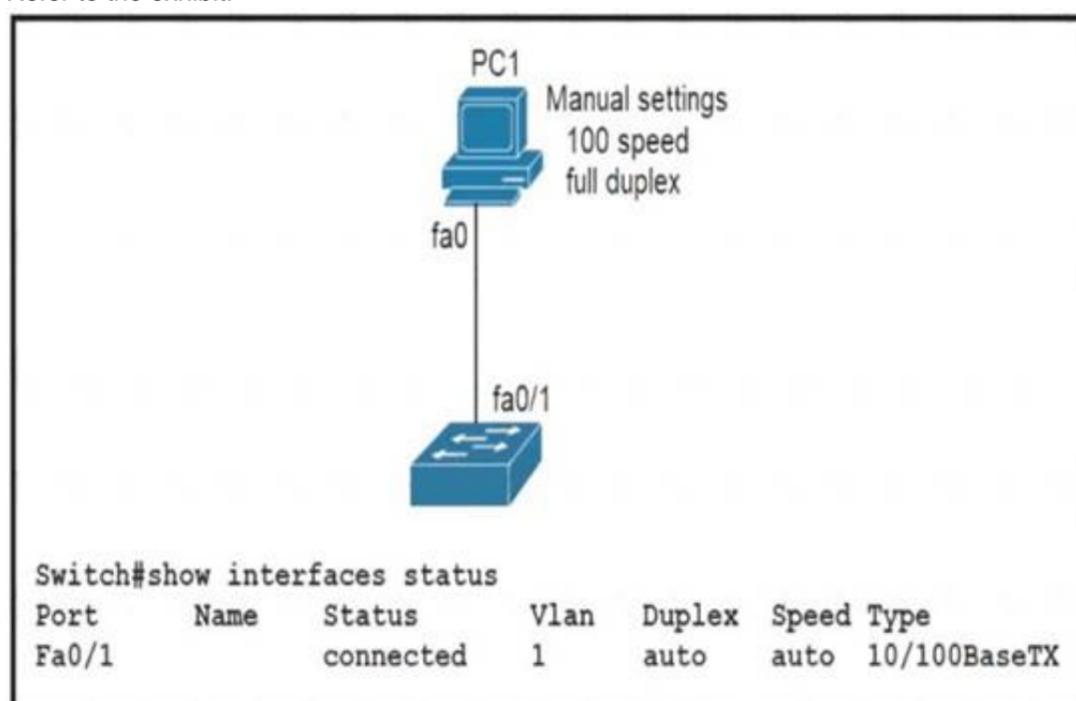
- A. to configure an Interface as a DHCP server
- B. to configure an interface as a DHCP helper
- C. to configure an interface as a DHCP relay
- D. to configure an interface as a DHCP client

Answer: D

NEW QUESTION 381

- (Exam Topic 3)

Refer to the exhibit.



The link between PC1 and the switch is up, but it is performing poorly. Which interface condition is causing the performance problem?

- A. There is a duplex mismatch on the interface
- B. There is an issue with the fiber on the switch interface.
- C. There is a speed mismatch on the interface.
- D. There is an interface type mismatch

Answer: A

NEW QUESTION 386

- (Exam Topic 3)

Which interface mode must be configured to connect the lightweight APs in a centralized architecture?

- A. WLAN dynamic
- B. management
- C. trunk
- D. access

Answer: D

NEW QUESTION 391

- (Exam Topic 3)

What is an expected outcome when network management automation is deployed?

- A. A distributed management plane must be used.
- B. Software upgrades are performed from a central controller
- C. Complexity increases when new device configurations are added
- D. Custom applications are needed to configure network devices

Answer: B

NEW QUESTION 394

- (Exam Topic 3)

Refer to the exhibit.

```

R1#show run
!
router ospf 1
 auto-cost reference-bandwidth 100000
!
 interface GigabitEthernet0/0
 bandwidth 10000000
!
 interface GigabitEthernet0/1
 bandwidth 100000000
!
 interface GigabitEthernet0/2
 ip ospf cost 100
!
 interface GigabitEthernet0/3
 ip ospf cost 1000
end

```

Router R1 resides in OSPF Area 0. After updating the R1 configuration to influence the paths that it will use to direct traffic, an engineer verified that each of the four Gigabit interfaces has the same route to 10.10.0.0/16. Which interface will R1 choose to send traffic to reach the route?

- A. GigabitEthernet0/0
- B. GigabitEthernet0/1
- C. GigabitEthernet0/2
- D. GigabitEthernet0/3

Answer: B

NEW QUESTION 398

- (Exam Topic 3)

What are two benefits of FHRPs? (Choose two.)

- A. They enable automatic failover of the default gateway.
- B. They allow multiple devices to serve as a single virtual gateway for clients in the network.
- C. They are able to bundle multiple ports to increase bandwidth.
- D. They prevent loops in the Layer 2 network.
- E. They allow encrypted traffic.

Answer: AB

NEW QUESTION 399

- (Exam Topic 2)

What is a characteristic of private IPv4 addressing?

- A. traverse the Internet when an outbound ACL is applied
- B. issued by IANA in conjunction with an autonomous system number
- C. composed of up to 65.536 available addresses
- D. used without tracking or registration

Answer: D

NEW QUESTION 400

- (Exam Topic 2)

Which plane is centralized by an SDN controller?

- A. management-plane
- B. control-plane
- C. data-plane
- D. services-plane

Answer: B

NEW QUESTION 401

- (Exam Topic 3)

Drag and drop the facts about wireless architectures from the left onto the types of access point on the right. Not all options are used.



- A. Mastered
- B. Not Mastered

Answer: A

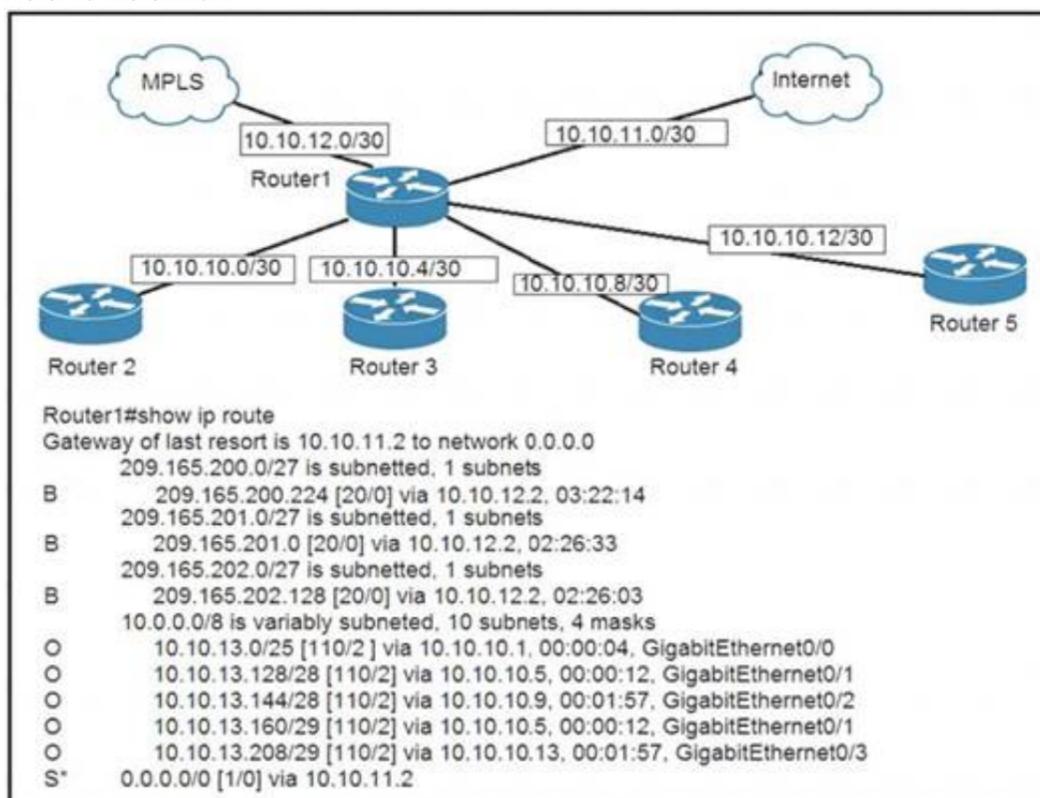
Explanation:

Diagram Description automatically generated

NEW QUESTION 402

- (Exam Topic 2)

Refer to the exhibit.



To which device does Router1 send packets that are destined to host 10.10.13.165?

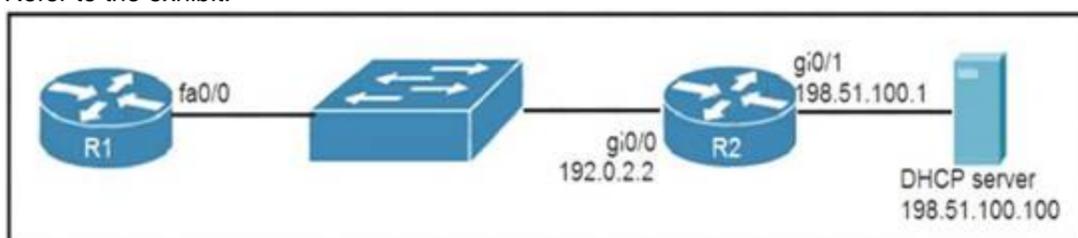
- A. Router2
- B. Router3
- C. Router4
- D. Router5

Answer: B

NEW QUESTION 403

- (Exam Topic 2)

Refer to the exhibit.



An engineer deploys a topology in which R1 obtains its IP configuration from DHCP. If the switch and DHCP server configurations are complete and correct. Which two sets of commands must be configured on R1 and R2 to complete the task? (Choose two)

- A. R1(config)# interface fa0/0 R1(config-if)# ip helper-address 198.51.100.100
- B. R2(config)# interface gi0/0 R2(config-if)# ip helper-address 198.51.100.100
- C. R1(config)# interface fa0/0 R1(config-if)# ip address dhcp R1(config-if)# no shutdown
- D. R2(config)# interface gi0/0 R2(config-if)# ip address dhcp
- E. R1(config)# interface fa0/0 R1(config-if)# ip helper-address 192.0.2.2

Answer: BC

NEW QUESTION 404

- (Exam Topic 2)

Where is the interface between the control plane and data plane within the software-defined architecture?

- A. control layer and the infrastructure layer
- B. application layer and the infrastructure layer
- C. application layer and the management layer
- D. control layer and the application layer

Answer: A

NEW QUESTION 407

- (Exam Topic 2)

What is a difference between RADIUS and TACACS+?

- A. RADIUS is most appropriate for dial authentication, but TACACS+ can be used for multiple types of authentication
- B. TACACS+ encrypts only password information and RADIUS encrypts the entire payload
- C. TACACS+ separates authentication and authorization, and RADIUS merges them
- D. RADIUS logs all commands that are entered by the administrator, but TACACS+ logs only start, stop, and interim commands

Answer: C

NEW QUESTION 412

- (Exam Topic 2)

What are two reasons that cause late collisions to increment on an Ethernet interface? (Choose two)

- A. when the sending device waits 15 seconds before sending the frame again
- B. when the cable length limits are exceeded
- C. when one side of the connection is configured for half-duplex
- D. when Carrier Sense Multiple Access/Collision Detection is used
- E. when a collision occurs after the 32nd byte of a frame has been transmitted

Answer: BC

Explanation:

The usual possible causes are full-duplex/half-duplex mismatch, exceeded Ethernet cable length limits, or defective hardware such as incorrect cabling, non-compliant number of hubs in the network, or a bad NIC.

NEW QUESTION 414

- (Exam Topic 2)

Refer to the exhibit.

```

R1#show ip route
Codes: C - connected, S - static, R - RIP, M - mobile, B - BGP
       D - EIGRP, EX - EIGRP external, O - OSPF, IA - OSPF inter area
       N1 - OSPF NSSA external type 1, N2 - OSPF NSSA external type 2
       E1 - OSPF external type 1, E2 - OSPF external type 2
       I - IS-IS, su - IS-IS summary, L1 - IS-IS level-1, L2 - IS-IS level-2
       ia - IS-IS inter area, * - candidate default, U - per-user static route
       o - ODR, P - periodic downloaded static route

Gateway of last resort is not set

10.0.0.0/24 is subnetted, 1 subnets
C       10.10.10.0 is directly connected, FastEthernet0/0

R2#show ip route
Codes: C - connected, S - static, R - RIP, M - mobile, B - BGP
       D - EIGRP, EX - EIGRP external, O - OSPF, IA - OSPF inter area
       N1 - OSPF NSSA external type 1, N2 - OSPF NSSA external type 2
       E1 - OSPF external type 1, E2 - OSPF external type 2
       I - IS-IS, su - IS-IS summary, L1 - IS-IS level-1, L2 - IS-IS level-2
       ia - IS-IS inter area, * - candidate default, U - per-user static route
       o - ODR, P - periodic downloaded static route

Gateway of last resort is not set

20.0.0.0/24 is subnetted, 1 subnets
C       20.20.20.0 is directly connected, FastEthernet0/1
10.0.0.0/24 is subnetted, 1 subnets
C       10.10.10.0 is directly connected, FastEthernet0/0

R3#show ip route
Codes: C - connected, S - static, R - RIP, M - mobile, B - BGP
       D - EIGRP, EX - EIGRP external, O - OSPF, IA - OSPF inter area
       N1 - OSPF NSSA external type 1, N2 - OSPF NSSA external type 2
       E1 - OSPF external type 1, E2 - OSPF external type 2
       I - IS-IS, su - IS-IS summary, L1 - IS-IS level-1, L2 - IS-IS level-2
       ia - IS-IS inter area, * - candidate default, U - per-user static route
       o - ODR, P - periodic downloaded static route

Gateway of last resort is not set

20.0.0.0/24 is subnetted, 1 subnets
C       20.20.20.0 is directly connected, FastEthernet0/1
10.0.0.0/24 is subnetted, 1 subnets
C       10.10.10.0 [1/0] via 20.20.20.1
    
```

Router R1 Fa0/0 is unable ping router R3 Fa0/1.

Which action must be taken in router R1 to help resolve the configuration issue?

- A. set the default network as 20.20.20.0/24
- B. set the default gateway as 20.20.20.2
- C. configure a static route with Fa0/1 as the egress interface to reach the 20.20.20.0/24 network
- D. configure a static route with 10.10.10.2 as the next hop to reach the 20.20.20.0/24 network

Answer: D

NEW QUESTION 419

- (Exam Topic 2)

When a WPA2-PSK WLAN is configured in the wireless LAN Controller, what is the minimum number of characters that in ASCII format?

- A. 6
- B. 8
- C. 12
- D. 18

Answer: B

NEW QUESTION 423

- (Exam Topic 2)

What are two benefits of using the PortFast feature? (Choose two)

- A. Enabled interfaces are automatically placed in listening state
- B. Enabled interfaces come up and move to the forwarding state immediately
- C. Enabled interfaces never generate topology change notifications.
- D. Enabled interfaces that move to the learning state generate switch topology change notifications
- E. Enabled interfaces wait 50 seconds before they move to the forwarding state

Answer: AB

NEW QUESTION 426

- (Exam Topic 2)

What is the effect when loopback interfaces and the configured router ID are absent during the OSPF Process configuration?

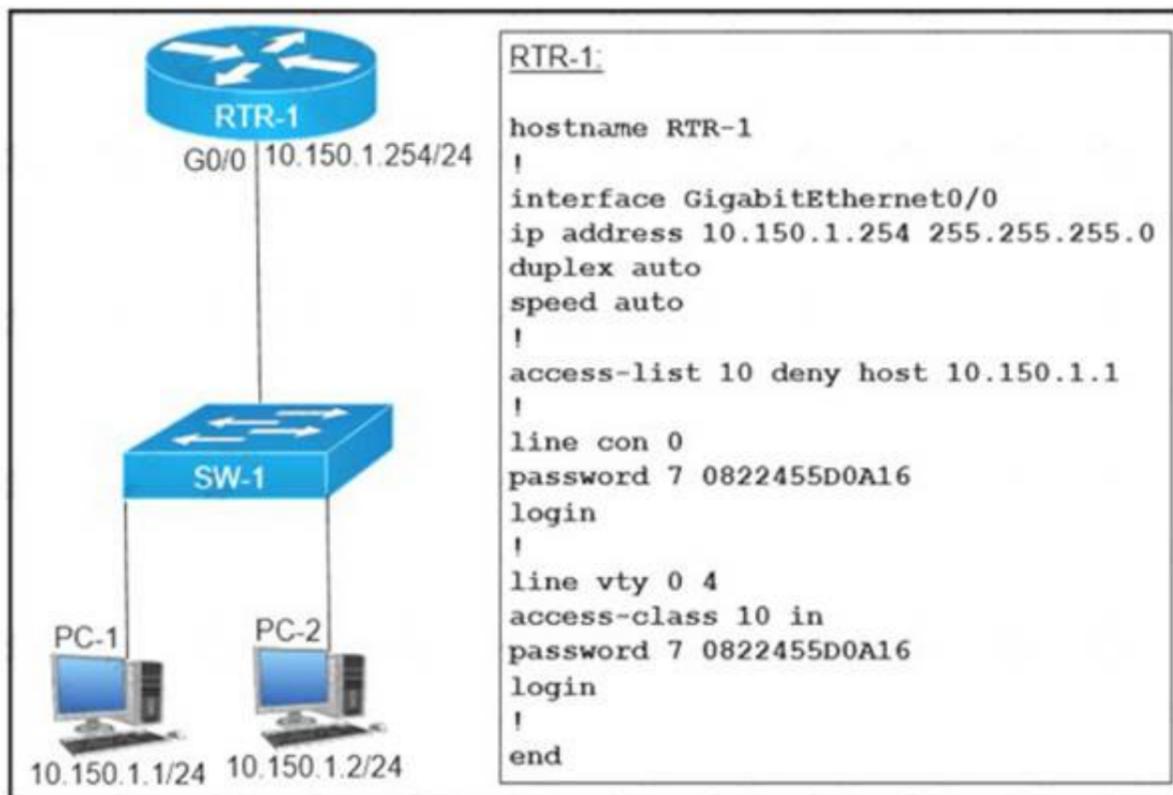
- A. No router ID is set, and the OSPF protocol does not run.
- B. The highest up/up physical interface IP address is selected as the router ID.
- C. The lowest IP address is incremented by 1 and selected as the router ID.
- D. The router ID 0.0.0.0 is selected and placed in the OSPF process.

Answer: B

NEW QUESTION 428

- (Exam Topic 2)

Refer to the exhibit.



An access list is created to deny Telnet access from host PC-1 to RTR-1 and allow access from all other hosts A Telnet attempt from PC-2 gives this message: "% Connection refused by remote host" Without allowing Telnet access from PC-1, which action must be taken to permit the traffic?

- A. Add the access-list 10 permit any command to the configuration
- B. Remove the access-class 10 in command from line vty 0.4.
- C. Add the ip access-group 10 out command to interface g0/0.
- D. Remove the password command from line vty 0 4.

Answer: A

NEW QUESTION 430

- (Exam Topic 2)

An engineer observes high usage on the 2.4GHz channels and lower usage on the 5GHz channels. What must be configured to allow clients to preferentially use 5GHz2 access points?

- A. Re- Anchor Roamed Clients
- B. 11ac MU-MIMO

- C. OEAP Split Tunnel
- D. Client Band Select

Answer: D

NEW QUESTION 433

- (Exam Topic 2)

What is a capability of FTP in network management operations?

- A. encrypts data before sending between data resources
- B. devices are directly connected and use UDP to pass file information
- C. uses separate control and data connections to move files between server and client
- D. offers proprietary support at the session layer when transferring data

Answer: C

Explanation:

The File Transfer Protocol (FTP) is a standard communication protocol used for the transfer of computer files from a server to a client on a computer network. FTP is built on a client-server model architecture using separate control and data connections between the client and the server.

NEW QUESTION 435

- (Exam Topic 2)

Which function does an SNMP agent perform?

- A. it sends information about MIB variables in response to requests from the NMS
- B. it requests information from remote network nodes about catastrophic system events.
- C. it manages routing between Layer 3 devices in a network
- D. it coordinates user authentication between a network device and a TACACS+ or RADIUS server

Answer: A

NEW QUESTION 439

- (Exam Topic 2)

Which two outcomes are predictable behaviors for HSRP? (Choose two)

- A. The two routers share a virtual IP address that is used as the default gateway for devices on the LAN.
- B. The two routers negotiate one router as the active router and the other as the standby router
- C. Each router has a different IP address both routers act as the default gateway on the LAN, and traffic is load balanced between them.
- D. The two routers synchronize configurations to provide consistent packet forwarding
- D. The two routers share the same IP address, and default gateway traffic is load-balanced between them

Answer: AB

NEW QUESTION 443

- (Exam Topic 2)

What is the benefit of configuring PortFast on an interface?

- A. After the cable is connected, the interface uses the fastest speed setting available for that cable type
- B. After the cable is connected, the interface is available faster to send and receive user data
- C. The frames entering the interface are marked with higher priority and then processed faster by a switch.
- D. Real-time voice and video frames entering the interface are processed faster

Answer: B

NEW QUESTION 445

- (Exam Topic 2)

Which IPv6 address block forwards packets to a multicast address rather than a unicast address?

- A. 2000::/3
- B. FC00::/7
- C. FE80::/10
- D. FF00::/12

Answer: D

NEW QUESTION 446

- (Exam Topic 2)

Which action must be taken to assign a global unicast IPv6 address on an interface that is derived from the MAC address of that interface?

- A. configure a stateful DHCPv6 server on the network
- B. enable SLAAC on an interface
- C. disable the EUI-64 bit process
- D. explicitly assign a link-local address

Answer: A

NEW QUESTION 451

- (Exam Topic 2)

What does an SDN controller use as a communication protocol to relay forwarding changes to a southbound API?

- A. OpenFlow
- B. Java
- C. REST
- D. XML

Answer: A

NEW QUESTION 452

- (Exam Topic 2)

When a client and server are not on the same physical network, which device is used to forward requests and replies between client and server for DHCP?

- A. DHCP relay agent
- B. DHCP server
- C. DHCPDISCOVER
- D. DHCPOFFER

Answer: A

NEW QUESTION 454

- (Exam Topic 2)

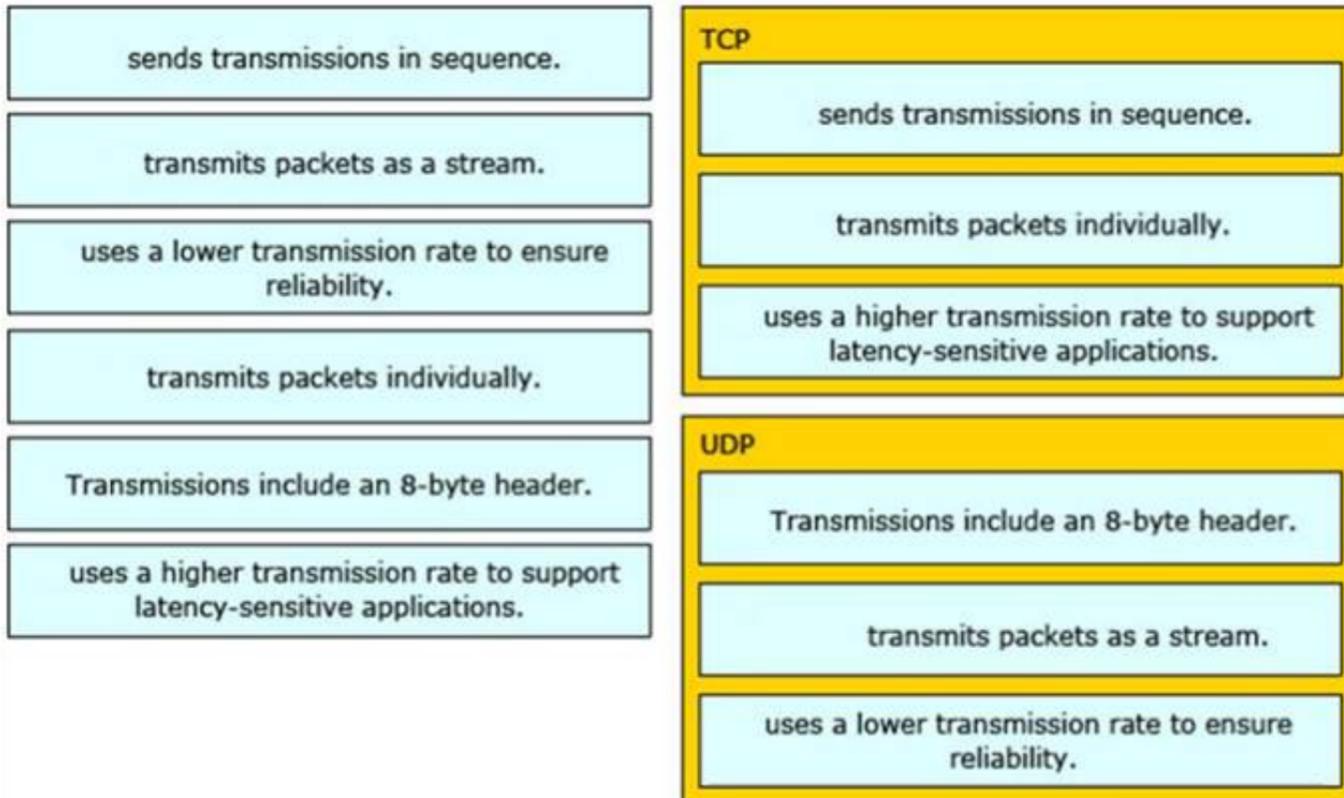
Drag the descriptions of IP protocol transmissions from the left onto the IP traffic types on the right.

sends transmissions in sequence.	TCP
Transmission include an 8-byte header.	
transmits packets as a stream.	
transmits packets individually	
uses a higher transmission rate to support latency-sensitive applications	UDP
uses a lower transmission rate to ensure reliability	

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:



NEW QUESTION 459

- (Exam Topic 2)

Which type of IPv6 address is publicly routable in the same way as IPv4 public address?

- A. global unicast
- B. link-local
- C. unique local
- D. multicast

Answer: A

NEW QUESTION 463

- (Exam Topic 2)

A network engineer must configure the router R1 GigabitEthernet1/1 interface to connect to the router R2 GigabitEthernet1/1 interface. For the configuration to be applied the engineer must compress the address 2001:0db8:0000:0000:0500:000a:400F:583B. Which command must be issued on the interface?

- A. ipv6 address 2001:0db8::5: a: 4F 583B
- B. ipv6 address 2001:db8::500:a:400F:583B
- C. ipv6 address 2001 db8:0::500:a:4F:583B
- D. ipv6 address 2001::db8:0000::500:a:400F:583B

Answer: B

NEW QUESTION 464

- (Exam Topic 2)

Refer to the exhibit.

```
Switch#show etherchannel summary
[output omitted]

Group  Port-channel  Protocol  Ports
-----+-----+-----+-----+-----
10     Po10(SU)       LACP      Gi0/0(P)  Gi0/1(P)
20     Po20(SU)       LACP      Gi0/2(P)  Gi0/3(P)
```

Which two commands were used to create port channel 10? (Choose two)

- int range g0/0-1
channel-group 10 mode active
- int range g0/0-1
channel-group 10 mode desirable
- int range g0/0-1
channel-group 10 mode passive
- int range g0/0-1
channel-group 10 mode auto
- int range g0/0-1
channel-group 10 mode on

- A. Option A
- B. Option B
- C. Option C
- D. Option D
- E. Option E

Answer: AC

NEW QUESTION 469

- (Exam Topic 2)

Which mode must be set for APs to communicate to a Wireless LAN Controller using the Control and Provisioning of Wireless Access Points (CAPWAP) protocol?

- A. bridge
- B. route
- C. autonomous
- D. lightweight

Answer: D

NEW QUESTION 472

- (Exam Topic 2)

What are two benefits of network automation? (Choose two)

- A. reduced operational costs
- B. reduced hardware footprint
- C. faster changes with more reliable results
- D. fewer network failures
- E. increased network security

Answer: AC

NEW QUESTION 476

- (Exam Topic 2)

How does CAPWAP communicate between an access point in local mode and a WLC?

- A. The access point must directly connect to the WLC using a copper cable
- B. The access point must not be connected to the wired network, as it would create a loop
- C. The access point must be connected to the same switch as the WLC
- D. The access point has the ability to link to any switch in the network, assuming connectivity to the WLC

Answer: D

NEW QUESTION 480

- (Exam Topic 2)

A network engineer must create a diagram of a multivendor network. Which command must be configured on the Cisco devices so that the topology of the network can be mapped?

- A. Device(Config)#lldp run
- B. Device(Config)#cdp run
- C. Device(Config-if)#cdp enable
- D. Device(Config)#flow-sampler-map topology

Answer: A

NEW QUESTION 482

- (Exam Topic 2)

What is the primary function of a Layer 3 device?

- A. to analyze traffic and drop unauthorized traffic from the Internet
- B. to transmit wireless traffic between hosts
- C. to pass traffic between different networks
- D. forward traffic within the same broadcast domain

Answer: C

NEW QUESTION 487

- (Exam Topic 2)

Refer to the exhibit.

```
C:\>ipconfig/all

Windows IP Configuration

Host Name . . . . . : Inspiron15
Primary Dns Suffix . . . . . :
Node Type . . . . . : Mixed
IP Routing Enabled. . . . . : No
WINS Proxy Enabled. . . . . : No

Wireless LAN adapter Local Area Connection* 12:

Media State . . . . . : Media disconnected
Connection-specific DNS Suffix . . . . . :
Description . . . . . : Microsoft Wi-Fi Direct Virtual Adapter
Physical Address. . . . . : 1A-76-3F-7C-57-DF
DHCP Enabled. . . . . : Yes
Autoconfiguration Enabled . . . . . : Yes

Wireless LAN adapter Wi-Fi:

Connection-specific DNS Suffix . . . . . :
Description . . . . . : Dell Wireless 1703 802.11b/g/n (2.4GHz)
Physical Address. . . . . : B8-76-3F-7C-57-DF
DHCP Enabled. . . . . : No
Autoconfiguration Enabled . . . . . : Yes
Link-local IPv6 Address . . . . . : fe80::e09f:9839:6e86:f755x12(Preferred)
IPv4 Address. . . . . : 192.168.1.20(Preferred)
Subnet Mask . . . . . : 255.255.255.0
Default Gateway . . . . . : 192.168.1.1
DHCPv6 IAID . . . . . : 263747135
DHCPv6 Client DUID. . . . . : 00-01-00-01-18-E6-32-43-B8-76-3F-7C-57-DF
. . . . . : 192.168.1.15
. . . . . : 192.168.1.16
NetBIOS over Tcpip. . . . . : Enabled
```

An engineer is tasked with verifying network configuration parameters on a client workstation to report back to the team lead. Drag and drop the node identifiers from the left onto the network parameters on the right.

192.168.1.1	broadcast address
192.168.1.20	default gateway
192.168.1.254	host IP address
192.168.1.255	last assignable IP address in the subnet
B8-76-3F-7C-57-DF	MAC address

- A. Mastered
- B. Not Mastered

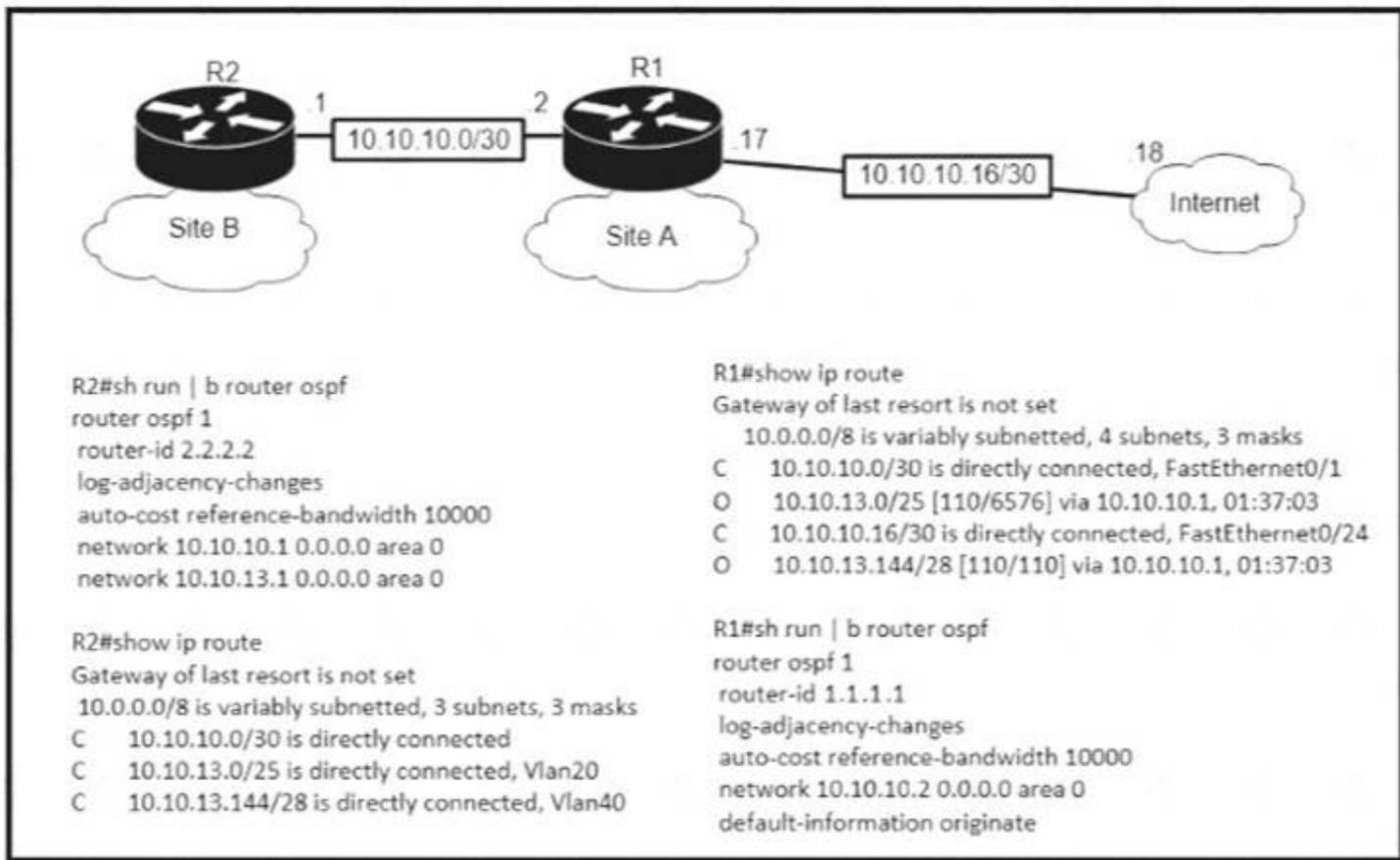
Answer: A

Explanation:

192.168.1.1	192.168.1.255
192.168.1.20	192.168.1.1
192.168.1.254	192.168.1.20
192.168.1.255	192.168.1.254
B8-76-3F-7C-57-DF	B8-76-3F-7C-57-DF

NEW QUESTION 488

- (Exam Topic 2)
 Refer to the exhibit.



An engineer is bringing up a new circuit to the MPLS provider on the Gi0/1 interface of Router1. The new circuit uses eBGP and teams the route to VLAN25 from the BGP path. What is the expected behavior for the traffic flow for route 10.10.13.0/25?

- A. Traffic to 10.10.13.0.25 is load balanced out of multiple interfaces
- B. Route 10.10.13.0/25 is updated in the routing table as being learned from interface Gi0/1.
- C. Traffic to 10.10.13.0/25 is asymmetrical
- D. Route 10.10.13.0/25 learned via the Gi0/0 interface remains in the routing table

Answer: D

NEW QUESTION 489

- (Exam Topic 2)
 Which two protocols must be disabled to increase security for management connections to a Wireless LAN Controller? (Choose two)

- A. Telnet
- B. SSH
- C. HTTP
- D. HTTPS
- E. TFTP

Answer: AC

NEW QUESTION 492

- (Exam Topic 2)
 A router running EIGRP has learned the same route from two different paths. Which parameter does the router use to select the best path?

- A. cost

- B. administrative distance
- C. metric
- D. as-path

Answer: C

Explanation:

If a router learns two different paths for the same network from the same routing protocol, it has to decide which route is better and will be placed in the routing table. Metric is the measure used to decide which route is better (lower number is better). Each routing protocol uses its own metric. For example, RIP uses hop counts as a metric, while OSPF uses cost.

NEW QUESTION 493

- (Exam Topic 2)

An office has 8 floors with approximately 30-40 users per floor. What command must be configured on the router Switched Virtual Interface to use address space efficiently?

- A. ip address 192.168.0.0 255.255.0.0
- B. ip address 192.168.0.0 255.255.254.0
- C. ip address 192.168.0.0 255.255.255.128
- D. ip address 192.168.0.0 255.255.255.224

Answer: B

NEW QUESTION 496

- (Exam Topic 2)

An administrator must secure the WLC from receiving spoofed association requests. Which steps must be taken to configure the WLC to restrict the requests and force the user to wait 10 ms to retry an association request?

- A. Enable Security Association Teardown Protection and set the SA Query timeout to 10
- B. Enable MAC filtering and set the SA Query timeout to 10
- C. Enable 802.1x Layer 2 security and set the Comeback timer to 10
- D. Enable the Protected Management Frame service and set the Comeback timer to 10

Answer: C

NEW QUESTION 500

- (Exam Topic 2)

Which 802.11 frame type is indicated by a probe response after a client sends a probe request?

- A. action
- B. management
- C. control
- D. data

Answer: B

NEW QUESTION 501

- (Exam Topic 2)

What are two characteristics of a controller-based network? (Choose two)

- A. The administrator can make configuration updates from the CLI
- B. It uses northbound and southbound APIs to communicate between architectural layers
- C. It moves the control plane to a central point.
- D. It decentralizes the control plane, which allows each device to make its own forwarding decisions
- E. It uses Telnet to report system issues.

Answer: BC

NEW QUESTION 505

- (Exam Topic 2)

Refer to the exhibit.

```

R1# show ip route
D    192.168.10.0/24 [90/2679326] via 192.168.1.1
R    192.168.10.0/27 [120/3] via 192.168.1.2
O    192.168.10.0/23 [110/2] via 192.168.1.3
i L1 192.168.10.0/13 [115/30] via 192.168.1.4
```

How does router R1 handle traffic to 192.168.10.16?

- A. It selects the IS-IS route because it has the shortest prefix inclusive of the destination address.
- B. It selects the EIGRP route because it has the lowest administrative distance.
- C. It selects the OSPF route because it has the lowest cost.

D. It selects the RIP route because it has the longest prefix inclusive of the destination address.

Answer: D

NEW QUESTION 509

- (Exam Topic 2)

What are two benefits of FHRPs? (Choose two.)

- A. They prevent (oops in the Layer 2 network.
- B. They allow encrypted traffic.
- C. They are able to bundle multiple ports to increase bandwidth
- D. They enable automatic failover of the default gateway.
- E. They allow multiple devices to serve as a single virtual gateway for clients in the network

Answer: DE

NEW QUESTION 510

- (Exam Topic 2)

Which protocol prompts the Wireless LAN Controller to generate its own local web administration SSL certificate for GUI access?

- A. HTTPS
- B. RADIUS
- C. TACACS+
- D. HTTP

Answer: A

Explanation:

Reference:

https://www.cisco.com/c/en/us/td/docs/wireless/controller/8-0/configuration-guide/b_cg80/b_cg80_chapter_011

NEW QUESTION 515

- (Exam Topic 2)

What role does a hypervisor provide for each virtual machine in server virtualization?

- A. infrastructure-as-a-service.
- B. Software-as-a-service
- C. control and distribution of physical resources
- D. services as a hardware controller.

Answer: C

Explanation:

The hypervisor creates and manages virtual machines on a host computer and allocates physical system resources to them.

NEW QUESTION 517

- (Exam Topic 2)

Which action is taken by a switch port enabled for PoE power classification override?

- A. When a powered device begins drawing power from a PoE switch port a syslog message is generated
- B. As power usage on a PoE switch port is checked data flow to the connected device is temporarily paused
- C. If a switch determines that a device is using less than the minimum configured power it assumes the device has failed and disconnects
- D. Should a monitored port exceeds the maximum administrative value for power, the port is shutdown and err-disabled

Answer: D

Explanation:

Reference:

https://www.cisco.com/c/en/us/td/docs/switches/lan/catalyst6500/ios/12-2SX/configuration/guide/book/power_o

PoE monitoring and policing compares the power consumption on ports with the administrative maximum value (either a configured maximum value or the port's default value). If the power consumption on a monitored port exceeds the administrative maximum value, the following actions occur:– A syslog message is issued.– The monitored port is shut down and error-disabled.– The allocated power is freed.

NEW QUESTION 522

- (Exam Topic 2)

Refer to the exhibit.

```
[root@HostTest ~]# ip route
default via 192.168.1.193 dev eth1 proto static
192.168.1.0/26 dev eth1 proto kernel scope link src 192.168.1.200 metric 1

[root@HostTest ~]# ip addr show eth1
eth1: mtu 1500 qdisc pfifo_fast qlen 1000
link/ether 00:0c:22:83:79:a3 brd ff:ff:ff:ff:ff:ff
inet 192.168.1.200/26 brd 192.168.1.255 scope global eth1
inet6 fe80::20c:29ff:fe89:79b3/64 scope link
valid_lft forever preferred_lft forever
```

Drag and drop the networking parameters from the left onto the correct values on the right.

default gateway	00:0C:22
host IP address	00:0C:22:83:79:A3
NIC MAC address	192.168.1.193
NIC vendor OUI	192.168.1.200
subnet mask	255.255.255.192

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

NIC vendor OUI → 00:0C:22
 NIC MAC address → 00:0C:22:83:79:A3
 default gateway → 192.168.1.193
 host IP address → 192.168.1.200
 subnet mask → 255.255.255.192

The "ip route" and "ip addr show eth1" are Linux commands.
 + "ip route": display the routing table
 + "ip addr show eth1": get depth information (only on eth1 interface) about your network interfaces like IP Address, MAC Address information

NEW QUESTION 523

- (Exam Topic 2)

Drag and drop the lightweight access point operation modes from the left onto the descriptions on the right

bridge mode	allows the access point to communicate with the WLC over a WAN link
local mode	allows for packet captures of wireless traffic
monitor mode	rogue detector mode
Flexconnect mode	preferred for connecting access points in a mesh environment
	receive only mode which acts as a dedicated sensor for RFID and IDS
sniffer mode	transmits normally on one channel and monitors other channels for noise and interference

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

Table Description automatically generated

NEW QUESTION 526

- (Exam Topic 2)

Which communication interaction takes place when a southbound API is used?

- A. between the SDN controller and PCs on the network
- B. between the SON controller and switches and routers on the network
- C. between the SON controller and services and applications on the network
- D. between network applications and switches and routers on the network

Answer: B

NEW QUESTION 531

- (Exam Topic 2)

Which two actions influence the EIGRP route selection process? (Choose two)

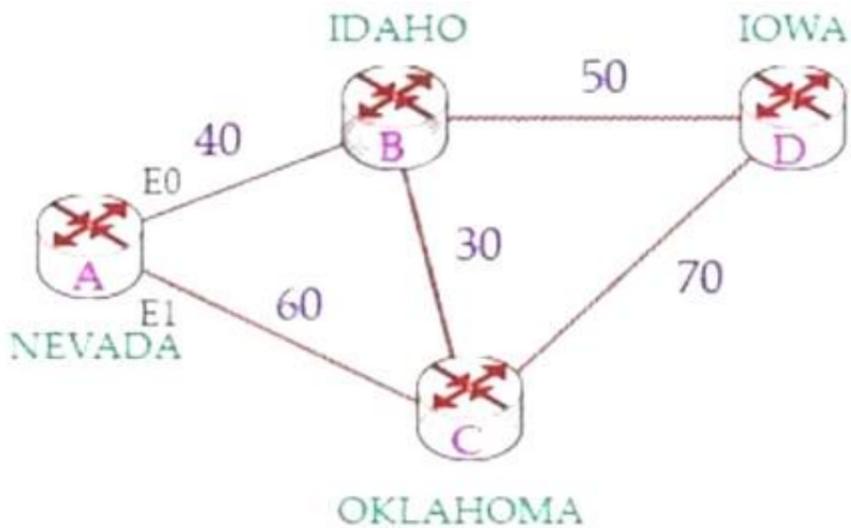
- A. The router calculates the reported distance by multiplying the delay on the exiting Interface by 256.
- B. The router calculates the best backup path to the destination route and assigns it as the feasible successor.
- C. The router calculates the feasible distance of all paths to the destination route
- D. The advertised distance is calculated by a downstream neighbor to inform the local router of the bandwidth on the link
- E. The router must use the advertised distance as the metric for any given route

Answer: BC

Explanation:

The reported distance (or advertised distance) is the cost from the neighbor to the destination. It is calculated from the router advertising the route to the network. For example in the topology below, suppose router A & B are exchanging their routing tables for the first time. Router B says "Hey, the best metric (cost) from me to IOWA is 50 and the metric from you to IOWA is 90" and advertises it to router A.

Router A considers the first metric (50) as the Advertised distance. The second metric (90), which is from NEVADA to IOWA (through IDAHO), is called the Feasible distance.



The reported distance is calculated in the same way of calculating the metric. By default (K1 = 1, K2 = 0, K3 = 1, K4 = 0, K5 = 0), the metric is calculated as follows:

$$metric = \left[\frac{10,000,000}{\text{slowest bandwidth[in kbps]}} + \frac{\text{sum of delay[in } \mu\text{sec]}}{10} \right] * 256$$

NEW QUESTION 535

- (Exam Topic 2)

Which QoS tool is used to optimize voice traffic on a network that is primarily intended for data traffic?

- A. FIFO
- B. WFQ
- C. PQ
- D. WRED

Answer: C

NEW QUESTION 539

- (Exam Topic 2)

What is a syslog facility?

- A. Host that is configured for the system to send log messages
- B. password that authenticates a Network Management System to receive log messages
- C. group of log messages associated with the configured severity level
- D. set of values that represent the processes that can generate a log message

Answer: C

Explanation:

Cisco Community – Difference between logging level and logging facility Post by ahmednaas

"The logging facility command basically tells the syslog server where to put the log message. You configure the syslog server with something like:

local7.debug /var/adm/local7.log

Now, when you use the "logging facility local7" on your device, all messages with severity "debug" or greater should be saved in /var/adm/local7.log."

Example: on a switch, any process (CDP, SNMP, etc.) can generate a log message. On a syslog server, the logging facility is the place where all received messages with the same priority level are stored.

NEW QUESTION 541

- (Exam Topic 2)

R1 has learned route 192.168.12.0/24 via IS-IS, OSPF, RIP, and Internal EIGRP Under normal operating conditions, which routing protocol is installed in the routing table?

- A. IS-IS
- B. RIP
- C. Internal EIGRP
- D. OSPF

Answer: C

Explanation:

With the same route (prefix), the router will choose the routing protocol with lowest Administrative Distance (AD) to install into the routing table. The AD of Internal EIGRP (90) is lowest so it would be chosen. The table below lists the ADs of popular routing protocols.

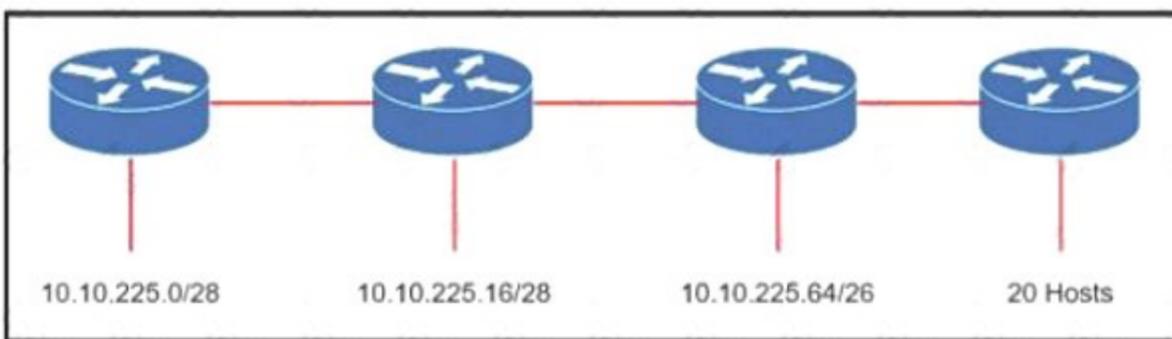
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Route Source	Administrative Distance
Directly Connected	0
Static	1
EIGRP	90
EIGRP Summary route	5
OSPF	110
RIP	120

Note: The AD of IS-IS is 115. The "EIGRP" in the table above is "Internal EIGRP". The AD of "External EIGRP" is 170. An EIGRP external route is a route that was redistributed into EIGRP.

NEW QUESTION 544

- (Exam Topic 2)



Refer to the exhibit. An engineer must add a subnet for a new office that will add 20 users to the network. Which IPv4 network and subnet mask combination does the engineer assign to minimize wasting addresses?

- A. 10.10.225.48 255.255.255.240
- B. 10.10.225.32 255.255.255.240
- C. 10.10.225.48 255.255.255.224
- D. 10.10.225.32 255.255.255.224

Answer: D

NEW QUESTION 547

- (Exam Topic 1)

Refer to the exhibit.

```

Router#
Capability Codes: R - Router, T - Trans Bridge, B - Source Route Bridge
                  S - Switch, H - Host, I - IGMP, r - Repeater, P - Phone,
                  D - Remote, C - CVTA, M - Two-port Mac Relay

Device ID    Local Intrfce Holdtme Capability Platform Port ID
10.1.1.2    Gig 37/3      176          R I CPT 600 Gig 36/41
10.1.1.2    Gig 37/1      174          R I CPT 600 Gig 36/43
10.1.1.2    Gig 36/41     134          R I CPT 600 Gig 37/3
10.1.1.2    Gig 36/43     134          R I CPT 600 Gig 37/1
10.1.1.2    Ten 3/2       132          R I CPT 600 Ten 4/2
10.1.1.2    Ten 4/2       174          R I CPT 600 Ten 3/2
    
```

Which command provides this output?

- A. show ip route
- B. show ip interface
- C. show interface
- D. show cdp neighbor

Answer: D

NEW QUESTION 551

- (Exam Topic 1)

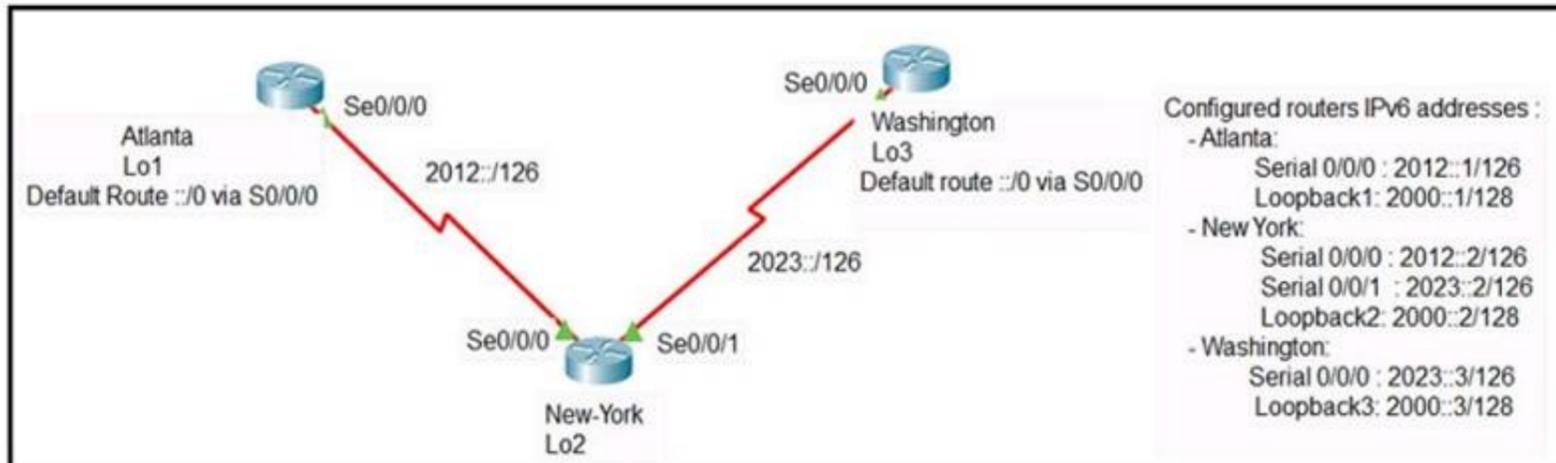
Which two components are needed to create an Ansible script that configures a VLAN on a switch? (Choose two.)

- A. cookbook
- B. task
- C. playbook
- D. model
- E. recipe

Answer: CD

NEW QUESTION 554

- (Exam Topic 1)
 Refer to Exhibit.



The loopback1 interface of the Atlanta router must reach the loopback3 interface of the Washington router. Which two static host routes must be configured on the NEW York router? (Choose two)

- A. ipv6 route 2000::1/128 2012::1
- B. ipv6 route 2000::3/128 2023::3
- C. ipv6 route 2000::3/128 s0/0/0
- D. ipv6 route 2000::1/128 2012::2
- E. ipv6 route 2000::1/128 s0/0/1

Answer: AB

NEW QUESTION 555

- (Exam Topic 1)
 Which access layer threat-mitigation technique provides security based on identity?

- A. Dynamic ARP Inspection
- B. using a non-default native VLAN
- C. 802.1x
- D. DHCP snooping

Answer: C

NEW QUESTION 560

- (Exam Topic 1)
 Which technology is used to improve web traffic performance by proxy caching?

- A. WSA
- B. Firepower
- C. ASA
- D. FireSIGHT

Answer: A

NEW QUESTION 564

- (Exam Topic 1)
 Which feature on the Cisco Wireless LAN Controller when enabled restricts management access from specific networks?

- A. CPU ACL
- B. TACACS
- C. Flex ACL
- D. RADIUS

Answer: A

Explanation:

Reference: <https://www.cisco.com/c/en/us/support/docs/wireless-mobility/wlan-security/71978-acl-wlc.html>

NEW QUESTION 568

- (Exam Topic 1)
 An engineer needs to add an old switch back into a network. To prevent the switch from corrupting the VLAN database which action must be taken?

- A. Add the switch in the VTP domain with a lower revision number

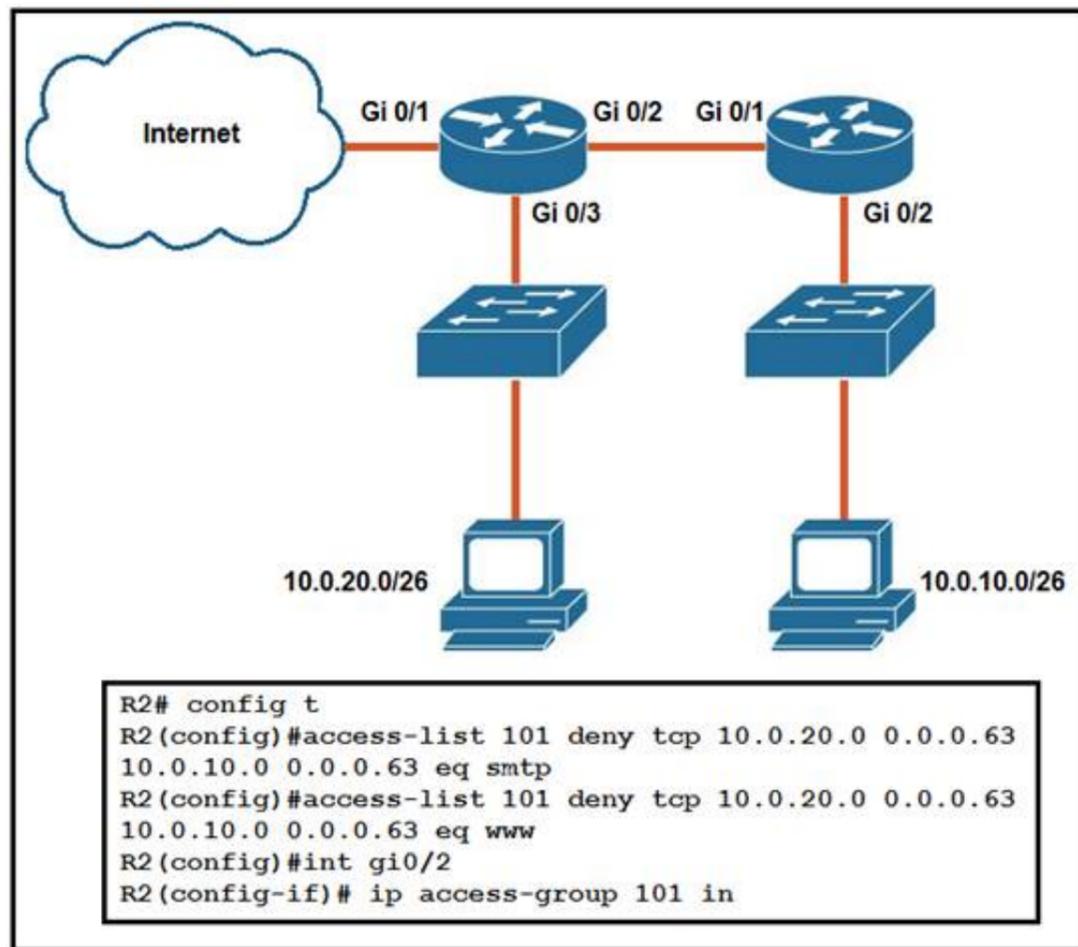
- B. Add the switch with DTP set to dynamic desirable
- C. Add the switch in the VTP domain with a higher revision number
- D. Add the switch with DTP set to desirable

Answer: A

NEW QUESTION 571

- (Exam Topic 1)

Refer to the exhibit.



An extended ACL has been configured and applied to router R2. The configuration failed to work as intended.

Which two changes stop outbound traffic on TCP ports 25 and 80 to 10.0.20.0/26 from the 10.0.10.0/26 subnet while still allowing all other traffic? (Choose two.)

- A. Add a "permit ip any any" statement to the beginning of ACL 101 for allowed traffic.
- B. Add a "permit ip any any" statement at the end of ACL 101 for allowed traffic.
- C. The source and destination IPs must be swapped in ACL 101.
- D. The ACL must be configured on the Gi0/2 interface inbound on R1.
- E. The ACL must be moved to the Gi0/1 interface outbound on R2.

Answer: BC

NEW QUESTION 576

- (Exam Topic 1)

Which two command sequences must you configure on a switch to establish a Layer 3 EtherChannel with an open-standard protocol? (Choose two.)

- A. interface GigabitEthernet0/0/1 channel-group 10 mode on
- B. interface GigabitEthernet0/0/1 channel-group 10 mode active
- C. interface GigabitEthernet0/0/1 channel-group 10 mode auto
- D. interface port-channel 10 switchport switchport mode trunk
- E. interface port-channel 10 no switchport ip address 172.16.0.1 255.255.255.0

Answer: BE

NEW QUESTION 581

- (Exam Topic 1)

On workstations running Microsoft Windows, which protocol provides the default gateway for the device?

- A. DHCP
- B. STP
- C. SNMP
- D. DNS

Answer: A

NEW QUESTION 582

- (Exam Topic 1)

What occurs to frames during the process of frame flooding?

- A. Frames are sent to every port on the switch in the same VLAN except from the originating port.
- B. Frames are sent to every port on the switch that has a matching entry in the MAC address table.

- C. Frames are sent to all ports, including those that are assigned to other VLANs.
- D. Frames are sent to every port on the switch in the same VLAN.

Answer: A

NEW QUESTION 584

- (Exam Topic 1)

Refer to the exhibit.

```
R2#show ip nat translations
Pro Inside global      Inside local  Outside local  Outside global
tcp 172.23.104.3:43268 10.4.4.4:43268 172.23.103.10:23 172.23.103.10:23
tcp 172.23.104.4:45507 10.4.4.5:45507 172.23.103.10:80 172.23.103.10:80
```

An engineer configured NAT translations and has verified that the configuration is correct. Which IP address is the source IP?

- A. 10.4.4.4
- B. 10.4.4.5
- C. 172.23.103.10
- D. 172.23.104.4

Answer: D

Explanation:

NAT is used to send a packet to the outside network, using a public IP address to make it routable. The NAT logic is "inside-to-outside" FIRST and "outside-to-inside" THEN. This way, configuring NAT means "choosing a public IP address" for any outbound packet" IN THE FIRST PLACE, where "public IP address" translates to "inside global address". Among the given answers, the only inside global address is 172.123.104.4.

NEW QUESTION 585

- (Exam Topic 1)

Refer to the exhibit.

```
Router1#show ip route
Gateway of last resort is 10.10.11.2 to network 0.0.0.0
 209.165.200.0/27 is subnetted, 1 subnets
 B       209.165.200.224 [20/0] via 10.10.12.2, 00:09:57
 10.0.0.0/8 is variably subnetted, 4 subnets, 3 masks
 C       10.10.10.0/28 is directly connected, GigabitEthernet0/0
 C       10.10.11.0/30 is directly connected, FastEthernet2/0
 O       10.10.13.0/24 [110/2] via 10.10.10.1, 00:08:34, GigabitEthernet0/0
 C       10.10.12.0/30 is directly connected, GigabitEthernet0/1
 S*     0.0.0.0/0 [1/0] via 10.10.11.2

Switch1#show ip route
Gateway of last resort is not set
 10.0.0.0/8 is variably subnetted, 2 subnets, 2 masks
 C       10.10.10.0/28 is directly connected, FastEthernet0/1
 C       10.10.13.0/24 is directly connected, VLAN20
```

which path is used by the router for internet traffic ?

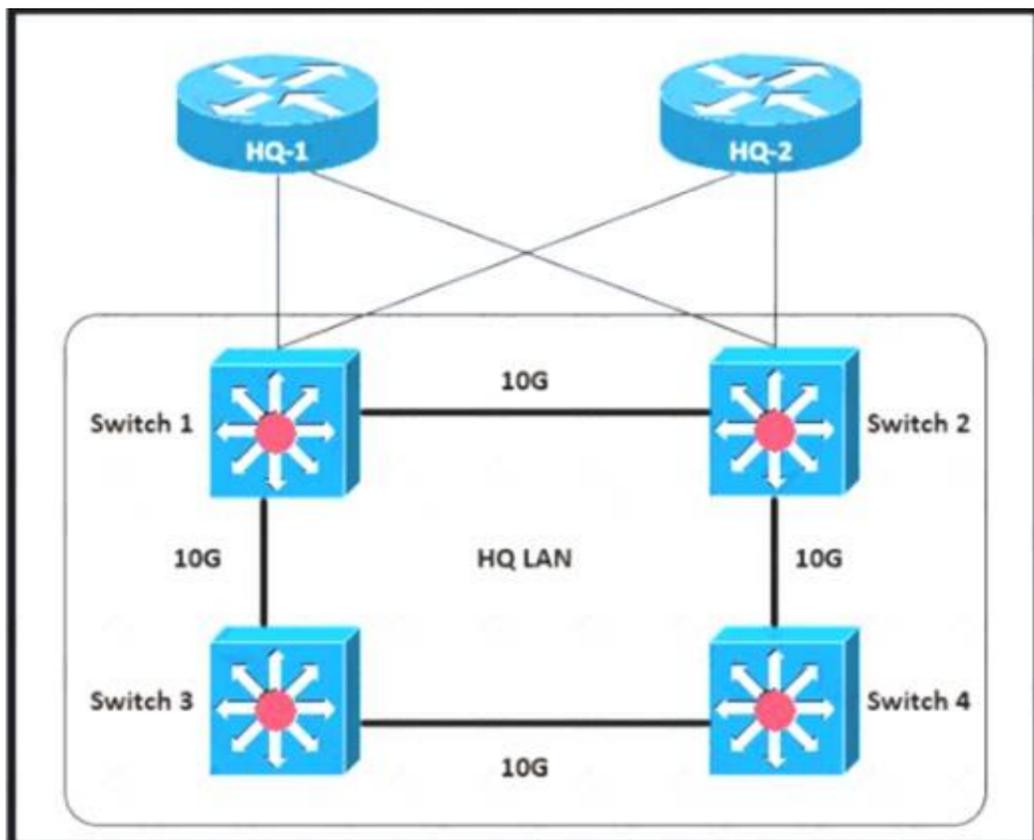
- A. 209.165.200.0/27
- B. 10.10.10.0/28
- C. 0.0.0.0/0
- D. 10.10.13.0/24

Answer: C

NEW QUESTION 589

- (Exam Topic 1)

Refer to the exhibit.



Which switch becomes the root of the spanning tree for VLAN 110?

```
Switch 1
VLAN 110 - 32778 0018.184e.3c00
Switch 2
VLAN 110 - 24586 001a.e3ff.a680
Switch 3
VLAN 110 - 28682 0022.55cf.cc00
Switch 4
VLAN 110 - 64000 0e38.7363.657f
```

- A. Switch 1
- B. Switch 2
- C. Switch 3
- D. Switch 4

Answer: B

NEW QUESTION 590

- (Exam Topic 1)

In which two ways does a password manager reduce the chance of a hacker stealing a users password? (Choose two.)

- A. It automatically provides a second authentication factor that is unknown to the original user.
- B. It uses an internal firewall to protect the password repository from unauthorized access.
- C. It protects against keystroke logging on a compromised device or web site.
- D. It stores the password repository on the local workstation with built-in antivirus and anti-malware functionality
- E. It encourages users to create stronger passwords.

Answer: CE

NEW QUESTION 593

- (Exam Topic 1)

Which action does the router take as it forwards a packet through the network?

- A. The router replaces the original source and destination MAC addresses with the sending router MAC address as the source and neighbor MAC address as the destination
- B. The router encapsulates the original packet and then includes a tag that identifies the source router MAC address and transmits it transparently to the destination
- C. The router encapsulates the source and destination IP addresses with the sending router IP address as the source and the neighbor IP address as the destination
- D. The router replaces the source and destination labels with the sending router interface label as a source and the next hop router label as a destination

Answer: A

NEW QUESTION 596

- (Exam Topic 1)

Which two functions are performed by the core layer in a three-tier architecture? (Choose two)

- A. Provide uninterrupted forwarding service.
- B. Police traffic that is sent to the edge of the network.
- C. Provide direct connectivity for end user devices.
- D. Ensure timely data transfer between layers.
- E. Inspect packets for malicious activity.

Answer: AD

Explanation:

Cisco is very clear about the purpose of this layer. Its only role is to forward traffic, the fastest it can. Here you don't apply any policy, as you must try to reduce the load of the core so it can focus on routing.

<https://www.cisco.com/c/en/us/td/docs/solutions/Enterprise/Campus/campover.html#wp708831>

NEW QUESTION 600

- (Exam Topic 1)

Which type of security program is violated when a group of employees enters a building using the ID badge of only one person?

- A. intrusion detection
- B. user awareness
- C. physical access control
- D. network authorization

Answer: C

NEW QUESTION 603

- (Exam Topic 1)

How is the native VLAN secured in a network?

- A. separate from other VLANs within the administrative domain
- B. give it a value in the private VLAN range
- C. assign it as VLAN 1
- D. configure it as a different VLAN ID on each end of the link

Answer: A

NEW QUESTION 605

- (Exam Topic 1)

What is the difference in data transmission delivery and reliability between TCP and UDP?

- A. TCP transmits data at a higher rate and ensures packet deliver
- B. UDP retransmits lost data to ensure applications receive the data on the remote end.
- C. UDP sets up a connection between both devices before transmitting dat
- D. TCP uses the three-way handshake to transmit data with a reliable connection.
- E. UDP is used for multicast and broadcast communicatio
- F. TCP is used for unicast communication and transmits data at a higher rate with error checking.
- G. TCP requires the connection to be established before transmitting dat
- H. UDP transmits data at a higher rate without ensuring packet delivery.

Answer: D

NEW QUESTION 607

- (Exam Topic 1)

Drag the IPv6 DNS record types from the left onto the description on the right.

AAAA	aliases one name to another
CNAME	associates the domain serial number with its owner
NS	correlates a domain with its authoritative name servers
PTR	correlates a host name with an IP address
SOA	supports reverse name lookups

- A. Mastered
- B. Not Mastered

Answer: A

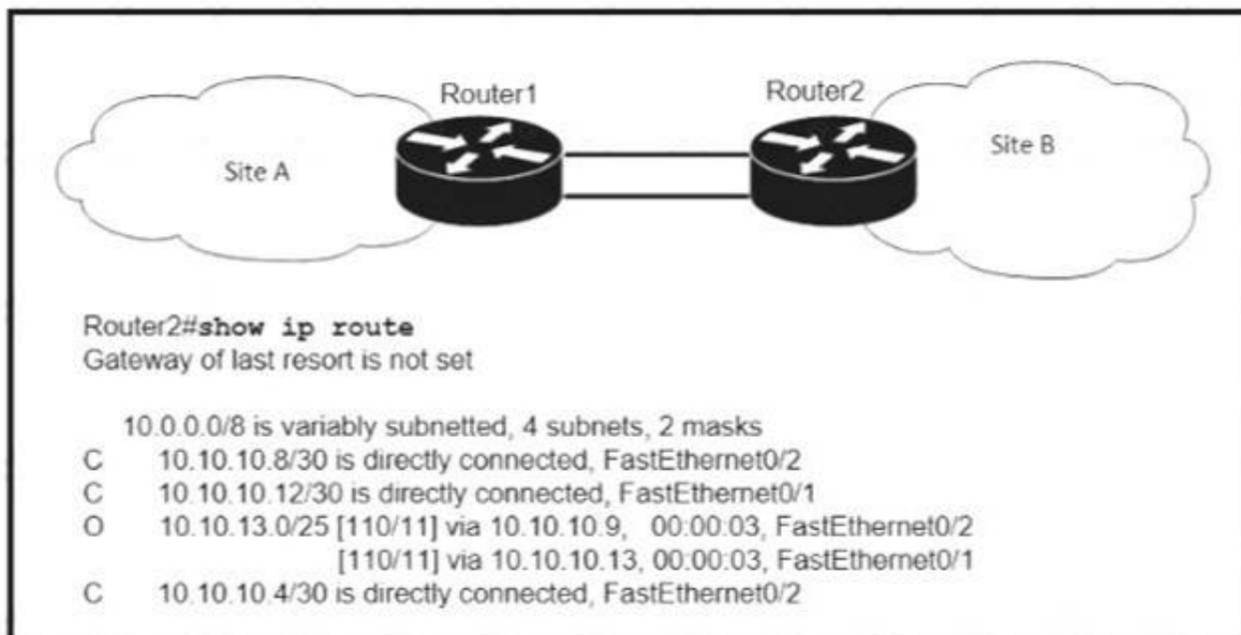
Explanation:

<https://ns1.com/resources/dns-types-records-servers-and-queries#:~:text=Address%20Mapping%20record%20>

NEW QUESTION 610

- (Exam Topic 1)

Refer to the exhibit.



If OSPF is running on this network, how does Router 2 handle traffic from Site B to 10.10.13.25 at Site A?

- A. It sends packets out of interface Fa0/2 only.
- B. It sends packets out of interface Fa0/1 only.
- C. It cannot send packets to 10.10.13.128/25
- D. It load-balances traffic out of Fa0/1 and Fa0/2

Answer: C

Explanation:

Router2 does not have an entry for the subnet 10.10.13.128/25. It only has an entry for 10.10.13.0/25, which ranges from 10.10.13.0 to 10.10.13.127.
<https://study-ccna.com/administrative-distance-metric/>

NEW QUESTION 612

- (Exam Topic 1)

A network engineer is configuring an OSPFv2 neighbor adjacency

Drag and drop the parameters from the left onto their required categories on the right. Not all parameters are used

netmask	must be unique
OSPF process ID	
router ID	must match
IP address	
area ID	
timers	

- A. Mastered
- B. Not Mastered

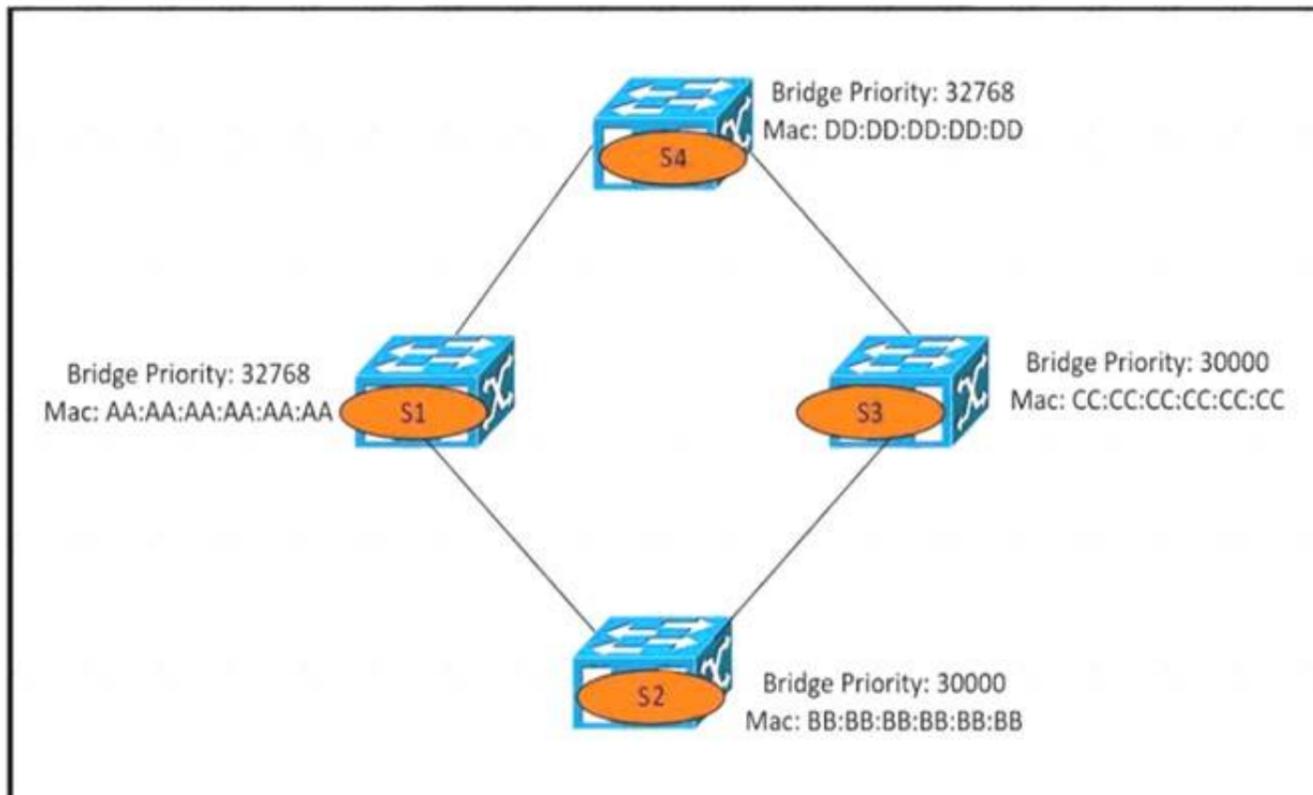
Answer: A

Explanation:



NEW QUESTION 616

- (Exam Topic 1)
 Refer to the exhibit.



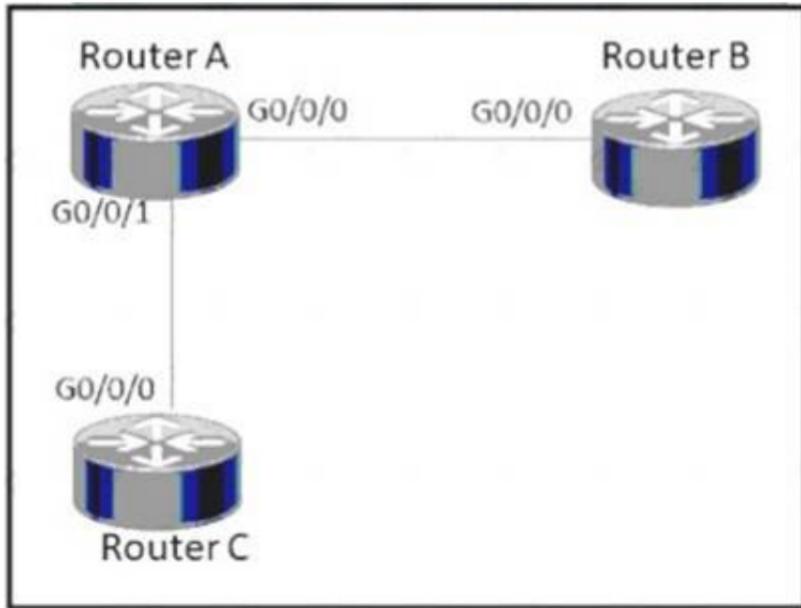
Which switch becomes the root bridge?

- A. S1
- B. S2
- C. S3
- D. S4

Answer: B

NEW QUESTION 620

- (Exam Topic 1)
 Refer to the exhibit.



How must router A be configured so that it only sends Cisco Discovery Protocol Information to router C?

- #config t
 Router A (config)#cdp run
 Router A (config)#interface gi0/0/0
 Router A (config-if)#no cdp enable
- #config t
 Router A (config)#cdp run
 Router A (config)#interface gi0/0/0
 Router A (config-if)#cdp enable
- #config t
 Router A (config)#cdp run
 Router A (config)#interface gi0/0/1
 Router A (config-if)#cdp enable
- #config t
 Router A (config)#no cdp run
 Router A (config)#interface gi0/0/1
 Router A (config-if)#cdp enable

- A. Option A
- B. Option B
- C. Option C
- D. Option D

Answer: D

NEW QUESTION 623

- (Exam Topic 1)

A network engineer must back up 20 network router configurations globally within a customer environment. Which protocol allows the engineer to perform this function using the Cisco IOS MIB?

- A. CDP
- B. SNMP
- C. SMTP
- D. ARP

Answer: B

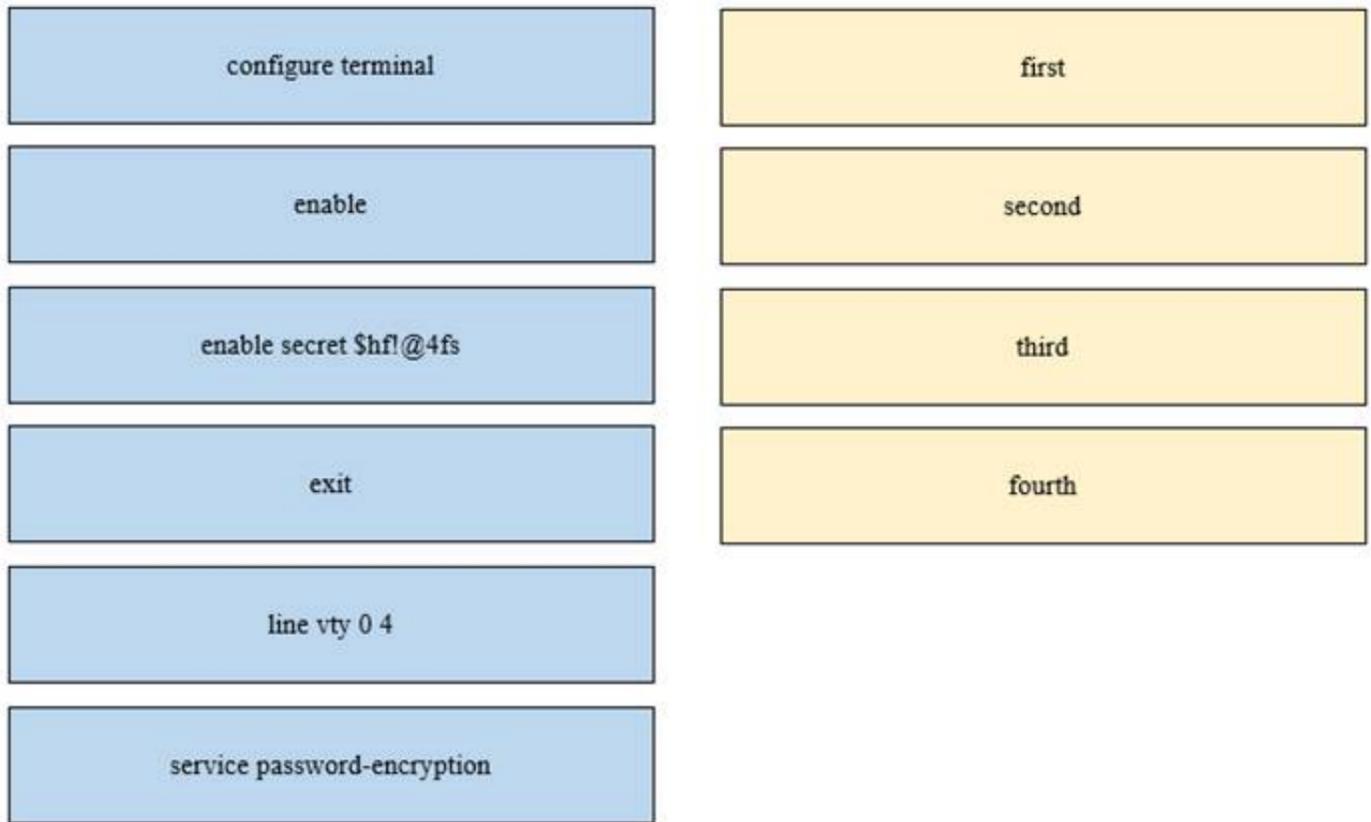
Explanation:

SNMP is an application-layer protocol that provides a message format for communication between SNMP managers and agents. SNMP provides a standardized framework and a common language used for the monitoring and management of devices in a network. The SNMP framework has three parts: + An SNMP manager+ An SNMP agent+ A Management Information Base (MIB) The Management Information Base (MIB) is a virtual information storage area for network management information, which consists of collections of managed objects. With SNMP, the network administrator can send commands to multiple routers to do the backup

NEW QUESTION 628

- (Exam Topic 1)

An engineer is configuring an encrypted password for the enable command on a router where the local user database has already been configured Drag and drop the configuration commands from the left into the correct sequence on the right Not all commands are used



- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

Graphical user interface, application Description automatically generated

NEW QUESTION 630

- (Exam Topic 1)

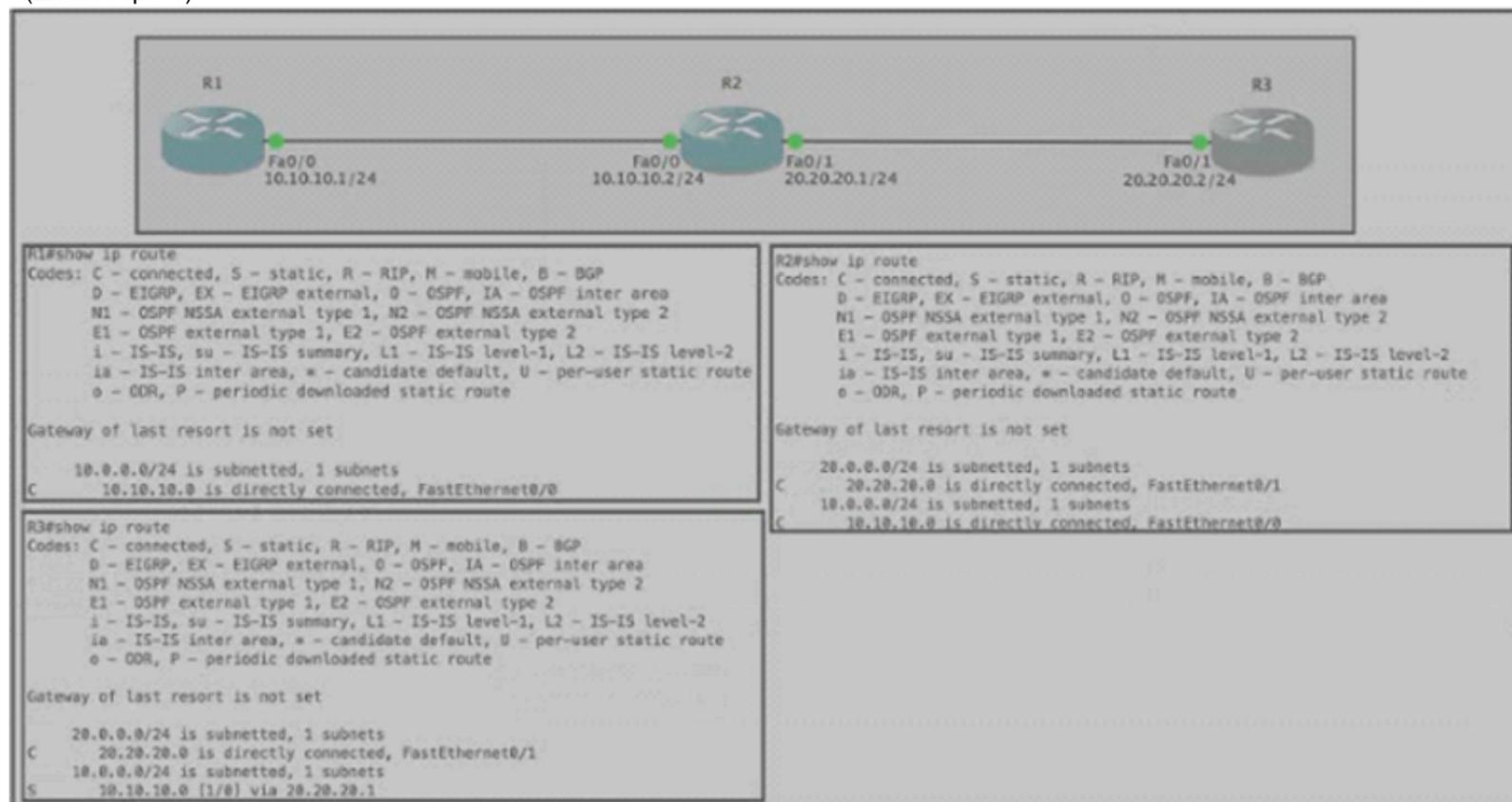
What are two improvements provided by automation for network management in an SDN environment? (Choose two)

- A. Data collection and analysis tools establish a baseline for the network
- B. Artificial intelligence identifies and prevents potential design failures.
- C. Machine learning minimizes the overall error rate when automating troubleshooting processes
- D. New devices are onboarded with minimal effort
- E. Proprietary Cisco APIs leverage multiple network management tools.

Answer: BE

NEW QUESTION 634

- (Exam Topic 1)



Refer to the exhibit Router R1 Fa0/0 is unable to ping router R3 Fa0'1. Which action must be taken in router R1 to help resolve the configuration issue?

- A. set the default network as 20.20.20.0/24
- B. set the default gateway as 20.20.20.2

- C. configure a static route with Fa0/1 as the egress interface to reach the 20.20.20.0/24 network
- D. configure a static route with 10.10.10.2 as the next hop to reach the 20.20.20.0/24 network

Answer: D

NEW QUESTION 637

- (Exam Topic 1)

What are two functions of a Layer 2 switch? (Choose two)

- A. acts as a central point for association and authentication servers
- B. selects the best route between networks on a WAN
- C. moves packets within a VLAN
- D. moves packets between different VLANs
- E. makes forwarding decisions based on the MAC address of a packet

Answer: AE

NEW QUESTION 642

- (Exam Topic 1)

Drag and drop the network protocols from the left onto the correct transport services on the right.

SMTP	Connection Oriented
SNMP	
TFTP	
VoIP	Connectionless
SSH	
FTP	

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

Connection Oriented
FTP
SNMP
SSH
Connectionless
TFTP
VoIP
SMTP

NEW QUESTION 644

- (Exam Topic 1)

A network administrator must enable DHCP services between two sites. What must be configured for the router to pass DHCPDISCOVER messages on to the server?

- A. a DHCP Relay Agent
- B. DHCP Binding
- C. a DHCP Pool
- D. DHCP Snooping

Answer: A

NEW QUESTION 646

- (Exam Topic 1)

Which WLC port connects to a switch to pass normal access-point traffic?

- A. redundancy
- B. console
- C. distribution system
- D. service

Answer: C

NEW QUESTION 648

- (Exam Topic 1)

Which spanning-tree enhancement avoids the learning and listening states and immediately places ports in the forwarding state?

- A. BPDUfilter
- B. PortFast
- C. Backbonefast
- D. BPDUguard

Answer: B

Explanation:

PortFast

Spanning Tree Portfast causes layer 2 switch interfaces to enter forwarding state immediately, bypassing the listening and learning states. It should be used on ports connected directly to end hosts like servers or workstations. Note: If portfast isn't enabled, DHCP timeouts can occur while STP converges, causing more problems.

<https://skminhaj.wordpress.com/2015/03/04/spanning-tree-stp-rstp-mst-enhancements/>

NEW QUESTION 650

- (Exam Topic 1)

What protocol allows an engineer to back up 20 network router configurations globally while using the copy function?

- A. SMTP
- B. SNMP
- C. TCP
- D. FTP

Answer: B

NEW QUESTION 652

- (Exam Topic 1)

Which technology is appropriate for communication between an SDN controller and applications running over the network?

- A. OpenFlow
- B. REST API
- C. NETCONF
- D. Southbound API

Answer: B

NEW QUESTION 657

- (Exam Topic 1)

In software defined architectures, which plane is distributed and responsible for traffic forwarding?

- A. management plane
- B. control plane
- C. policy plane
- D. data plane

Answer: D

NEW QUESTION 662

- (Exam Topic 1)

What does physical access control regulate?

- A. access to specific networks based on business function
- B. access to servers to prevent malicious activity
- C. access to computer networks and file systems
- D. access to networking equipment and facilities

Answer: D

NEW QUESTION 667

- (Exam Topic 1)

What is a recommended approach to avoid co-channel congestion while installing access points that use the 2.4 GHz frequency?

- A. different nonoverlapping channels
- B. different overlapping channels
- C. one overlapping channel
- D. one nonoverlapping channel

Answer: A

NEW QUESTION 668

- (Exam Topic 1)

Refer to the exhibit.

```
Atlanta#conf t
Enter configuration commands, one per line. End with CNTL/Z.
Atlanta(config)#aaa new-model
Atlanta(config)#aaa authentication login default local
Atlanta(config)#line vty 0 4
Atlanta(config-line)#login authentication default
Atlanta(config-line)#exit
Atlanta(config)#username ciscoadmin password adminadmin123
Atlanta(config)#username ciscoadmin privilege 15
Atlanta(config)#enable password cisco123
Atlanta(config)#enable secret testing1234
Atlanta(config)#end
```

Which password must an engineer use to enter the enable mode?

- A. adminadmin123
- B. default
- C. testing 1234
- D. cisco123

Answer: C

Explanation:

If neither the enable password command nor the enable secret command is configured, and if there is a line password configured for the console, the console line password serves as the enable password for all VTY sessions -> The "enable secret" will be used first if available, then "enable password" and line password.

NEW QUESTION 670

- (Exam Topic 1)

What is the primary purpose of a First Hop Redundancy Protocol?

- A. It allows directly connected neighbors to share configuration information.
- B. It allows a router to use bridge priorities to create multiple loop-free paths to a single destination.
- C. It reduces routing failures by allowing Layer 3 load balancing between OSPF neighbors that have the same link metric.
- D. It reduces routing failures by allowing more than one router to represent itself, as the default gateway of a network.

Answer: D

NEW QUESTION 672

- (Exam Topic 1)

What is an advantage of Cisco DNA Center versus traditional campus device management?

- A. It supports numerous extensibility options including cross-domain adapters and third-party SDKs.
- B. It supports high availability for management functions when operating in cluster mode.
- C. It enables easy autodiscovery of network elements in a brownfield deployment.
- D. It is designed primarily to provide network assurance.

Answer: A

NEW QUESTION 677

- (Exam Topic 1)

Which mode must be used to configure EtherChannel between two switches without using a negotiation protocol?

- A. on
- B. auto
- C. active
- D. desirable

Answer: A

Explanation:

The Static Persistence (or "on" mode) bundles the links unconditionally and no negotiation protocol is used. In this mode, neither PAgP nor LACP packets are sent or received.

NEW QUESTION 678

.....

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