200-301 Dumps

Cisco Certified Network Associate

https://www.certleader.com/200-301-dumps.html

NEW QUESTION 1
- (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 2
- (Exam Topic 2)
What are two characteristics of a public cloud Implementation? (Choose two.)

A. It is owned and maintained by one party, but it is shared among multiple organizations.
B. It enables an organization to fully customize how It deploys network resources.
C. It provides services that are accessed over the Internet.
D. It Is a data center on the public Internet that maintains cloud services for only one company.
E. It supports network resources from a centralized third-party provider and privately-owned virtual resources

Answer: CE

Explanation:
Private cloud is cloud infrastructure operated solely for a single organization, whether managed internally or by a third party, and hosted either internally or externally.
Most public-cloud providers offer direct-connection services that allow customers to securely link their legacy data centers to their cloud-resident applications.

NEW QUESTION 3
- (Exam Topic 2)
Which command must be entered when a device is configured as an NTP server?

A. ntp authenticate
B. ntp server
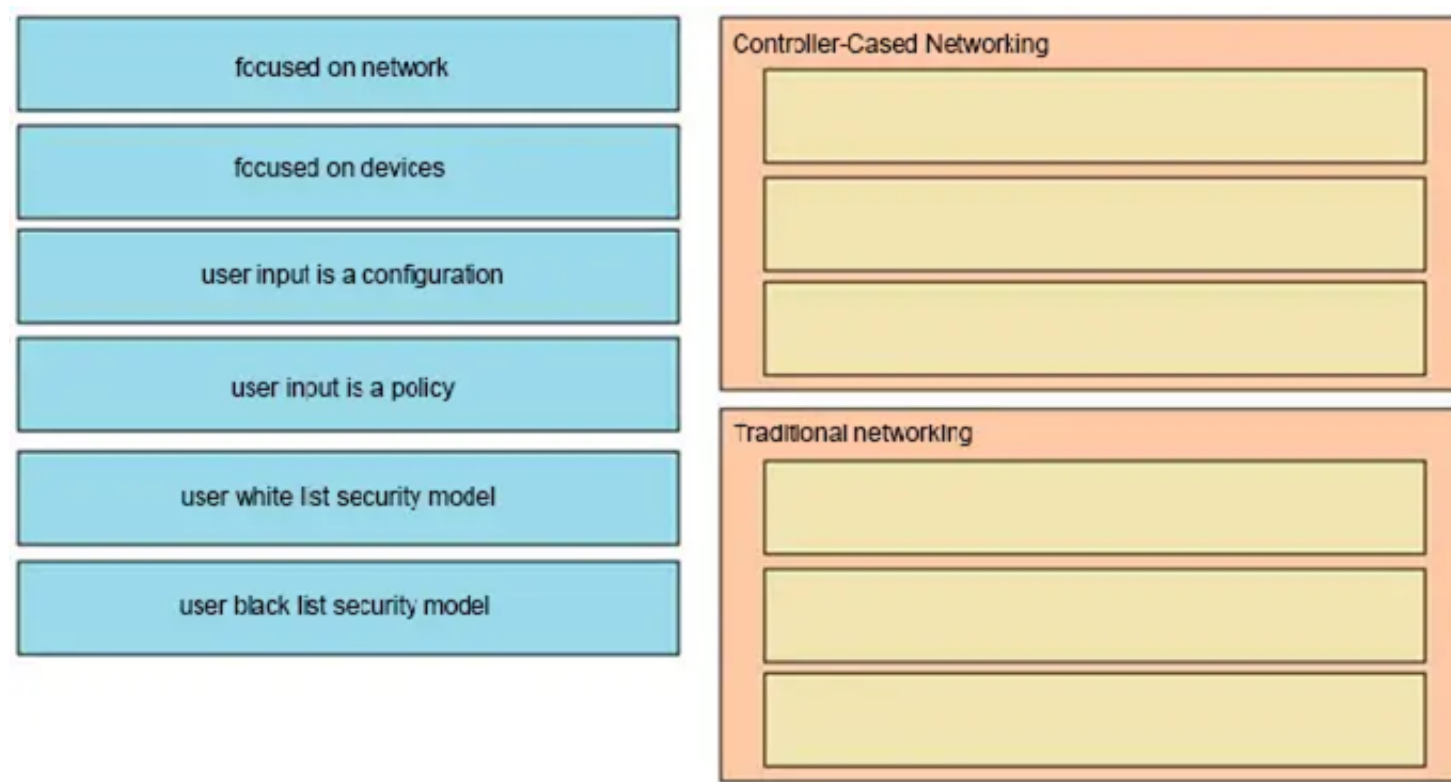C. ntp peer
D. ntp master

Answer: D

Explanation:
To configure a Cisco device as an Authoritative NTP Server, use the ntp master [stratum] command.To configure a Cisco device as a NTP client, use the command ntp server <IP address>. For example:Router(config)#ntp server 192.168.1.1. This command will instruct the router to query 192.168.1.1 for the time.
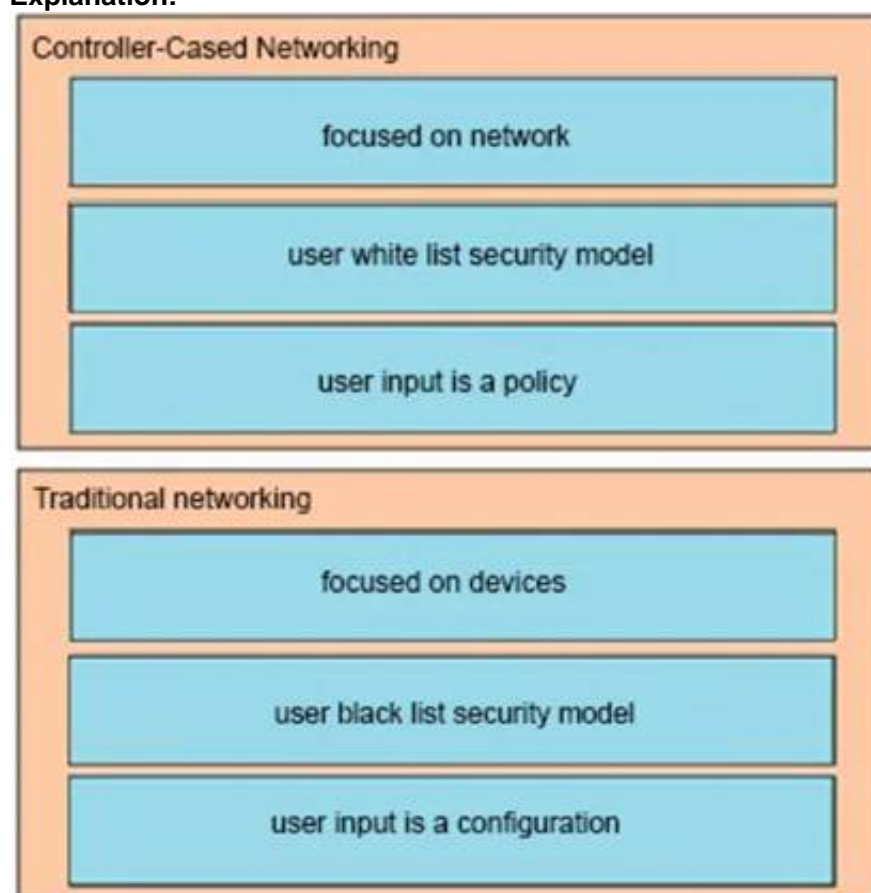

NEW QUESTION 4
- (Exam Topic 2)
Drag and drop to the characteristics of networking from the left onto the correct networking types on the right.

	Controller-Cased Networking
focused on network	
focused on devices	
user input is a configuration	
user input is a policy	
user white list security model	Traditional networking
user black list security model	

A. Mastered
B. Not Mastered

Answer: A

Explanation:

Controller-Cased Networking

- focused on network
- user white list security model
- user input is a policy

Traditional networking

- focused on devices
- user black list security model
- user input is a configuration

NEW QUESTION 5
- (Exam Topic 2)
An engineer configures interface Gi1/0 on the company PE router to connect to an ISP Neighbor discovery is disabled

```
interface Gi1/0
description HQ_DC3978-87297
duplex full
speed 100
negotiation auto
lldp transmit
lldp receive
```

Which action is necessary to complete the configuration if the ISP uses third-party network devices?

A. Enable LLDP globally
B. Disable autonegotiation
C. Disable Cisco Discovery Protocol on the interface
D. Enable LLDP-MED on the ISP device

Answer: D

NEW QUESTION 6

- (Exam Topic 2)
Which configuration is needed to generate an RSA key for SSH on a router?

A. Configure the version of SSH
B. Configure VTY access.
C. Create a user with a password.
D. Assign a DNS domain name

Answer: D

NEW QUESTION 7
- (Exam Topic 2)
When OSPF learns multiple paths to a network, how does it select a route?

A. It multiple the active K value by 256 to calculate the route with the lowest metric.
B. For each existing interface, it adds the metric from the source router to the destination to calculate the route with the lowest bandwidth.
C. It divides a reference bandwidth of 100 Mbps by the actual bandwidth of the existing interface to calculate the router with the lowest cost.
D. It count the number of hops between the source router and the destination to determine the router with the lowest metric

Answer: C

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 2)
Which configuration management mechanism uses TCP port 22 by default when communicating with managed nodes?

A. Ansible
B. Python
C. Puppet
D. Chef

Answer: A

NEW QUESTION 10
- (Exam Topic 2)
When the active router in an HSRP group fails, what router assumes the role and forwards packets?

A. backup
B. standby
C. listening
D. forwarding

Answer: B

NEW QUESTION 10
- (Exam Topic 2)
What are two descriptions of three-tier network topologies? (Choose two)

A. The core and distribution layers perform the same functions
B. The access layer manages routing between devices in different domains
C. The network core is designed to maintain continuous connectivity when devices fail.
D. The core layer maintains wired connections for each host
E. The distribution layer runs Layer 2 and Layer 3 technologies

Answer: CE

NEW QUESTION 15
- (Exam Topic 1)
An engineer is configuring data and voice services to pass through the same port. The designated switch interface fastethernet0/1 must transmit packets using the same priority for data when they are received from the access port of the IP phone. Which configuration must be used?
A)

```
interface fastethernet0/1
 switchport priority extend cos 7
```

B)

```
interface fastethernet0/1
 switchport voice vlan untagged
```

C)
```
interface fastethernet0/1
 switchport voice vlan dot1p
```

D)
```
interface fastethernet0/1
 switchport priority extend trust
```

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

Answer: A

NEW QUESTION 17
- (Exam Topic 1)
Which command is used to specify the delay time in seconds for LLDP to initialize on any interface?

A. lldp timer
B. lldp holdtimt
C. lldp reinit
D. lldp tlv-select

Answer: C

Explanation:
Reference:
https://www.cisco.com/c/en/us/td/docs/switches/lan/catalyst2960/software/release/12-2_37_ey/configuration/gui
+ lldp holdtime seconds: Specify the amount of time a receiving device should hold the information from your device before discarding it+ lldp reinit delay: Specify the delay time in seconds for LLDP to initialize on an interface+ lldp timer rate: Set the sending frequency of LLDP updates in seconds

NEW QUESTION 22
- (Exam Topic 1)
What are two characteristics of the distribution layer in a three-tier network architecture? (Choose two.)

A. serves as the network aggregation point
B. provides a boundary between Layer 2 and Layer 3 communications
C. designed to meet continuous, redundant uptime requirements
D. is the backbone for the network topology
E. physical connection point for a LAN printer

Answer: BC

NEW QUESTION 24
- (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 25
- (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 27
- (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 28
- (Exam Topic 1)
What is the benefit of using FHRP?

A. reduced management overhead on network routers
B. balancing traffic across multiple gateways in proportion to their loads
C. higher degree of availability
D. reduced ARP traffic on the network

Answer: C

NEW QUESTION 31
- (Exam Topic 1)
When a site-to-site VPN is configured, which IPsec mode provides encapsulation and encryption of the entire original P packet?

A. IPsec tunnel mode with AH
B. IPsec transport mode with AH
C. IPsec tunnel mode with ESP
D. IPsec transport mode with ESP

Answer: C

Explanation:
"Encapsulating Security Payload…Unlike Authentication Header (AH), ESP in transport mode does not provide integrity and authentication for the entire IP packet. However, in Tunnel Mode, where the entire original IP packet is encapsulated with a new packet header added, ESP protection is afforded to the whole inner IP packet (including the inner header) while the outer header (including any outer IPv4 options or IPv6 extension headers) remains unprotected.

NEW QUESTION 36
- (Exam Topic 1)
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 192.168.30.10 to network 0.0.0.0
     192.168.30.0/29 is subnetted, 2 subnets
C       192.168.30.0 is directly connected, FastEthernet0/0
C       192.168.30.8 is directly connected, Serial0/0.1
     192.168.10.0/24 is variably subnetted, 2 subnets, 2 masks
O IA    192.168.10.32/28 [110/193] via 192.168.30.10, 00:18:49, Serial0/0.1
O IA    192.168.10.0/27 [110/192] via 192.168.30.10, 00:18:49, Serial0/0.1
     192.168.20.0/30 is subnetted, 1 subnets
O IA    192.168.20.0 [110/128] via 192.168.30.10, 00:18:49, Serial0/0.1
     192.168.50.0/32 is subnetted, 1 subnets
C       192.168.50.1 is directly connected, Loopback0
O*IA 0.0.0.0/0 [110/84] via 192.168.30.10, 00:10:36, Serial0/0.1
```

What is the metric of the route to the 192.168.10.33/28 subnet?

A. 84
B. 110
C. 128
D. 192
E. 193

Answer: E

NEW QUESTION 37
- (Exam Topic 1)
Which option about JSON is true?

A. uses predefined tags or angle brackets () to delimit markup text
B. used to describe structured data that includes arrays
C. used for storing information
D. similar to HTML, it is more verbose than XML

Answer: B

Explanation:
JSON data is written as name/value pairs.A name/value pair consists of a field name (in double quotes), followed by a colon, followed by a value:"name":"Mark"JSON can use arrays. Array values must be of type string, number, object, array, boolean or null..For example:{"name":"John","age":30,"cars":["Ford", "BMW", "Fiat"]}

NEW QUESTION 40
- (Exam Topic 1)
How does HSRP provide first hop redundancy?

A. It load-balances traffic by assigning the same metric value to more than one route to the same destination m the IP routing table.
B. It load-balances Layer 2 traffic along the path by flooding traffic out all interfaces configured with the same VLAN.
C. It forwards multiple packets to the same destination over different routed links n the data path
D. It uses a shared virtual MAC and a virtual IP address to a group of routers that serve as the default gateway for hosts on a LAN

Answer: D

Explanation:
https://www.cisco.com/c/en/us/td/docs/ios-xml/ios/ipapp_fhrp/configuration/xe-16/fhp-xe-16-book/fhp-hsrp-mg

NEW QUESTION 41
- (Exam Topic 1)
Which 802.11 frame type is association response?

A. management
B. protected frame
C. control
D. action

Answer: A

Explanation:
Reference: https://en.wikipedia.org/wiki/802.11_Frame_Types

NEW QUESTION 46
- (Exam Topic 1)
Drag and drop the attack-mitigation techniques from the left onto the Types of attack that they mitigate on the right.

A. Mastered
B. Not Mastered

Answer: A

Explanation:

NEW QUESTION 47

- (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 48
- (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 49
- (Exam Topic 1)
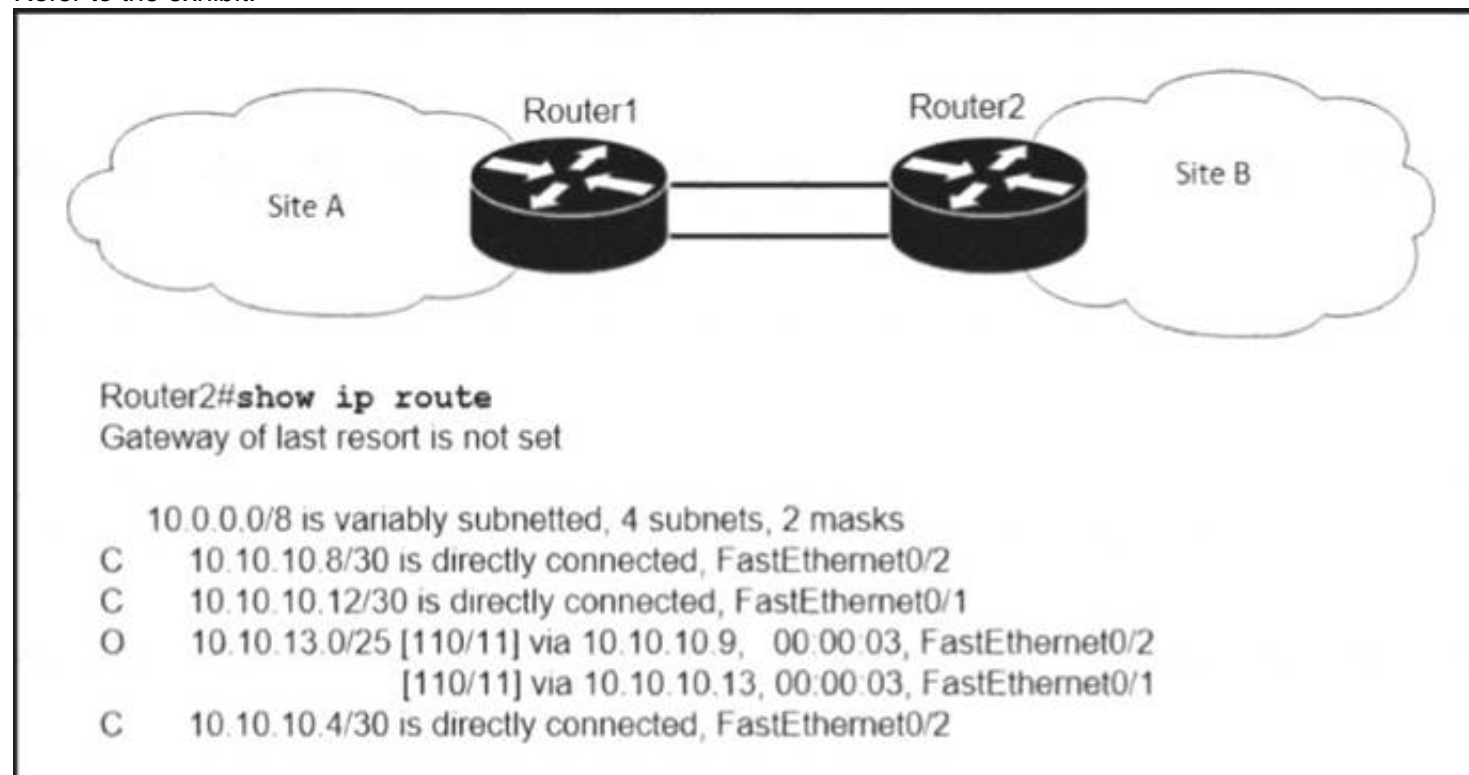What are two roles of Domain Name Services (DNS)? (Choose Two)

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 53
- (Exam Topic 1)
Refer to the exhibit.

If OSPF Is running on this network, how does Router2 handle traffic from Site B to 10.10.13.128/25 at Site A?

A. It load-balances traffic out of Fa0/1 and Fa0/2.
B. It is unreachable and discards the traffic.
C. It sends packets out of interface FaO/2.
D. It sends packets out of interface Fa0/1.

Answer: B

NEW QUESTION 55
- (Exam Topic 1)
which purpose does a northbound API serve in a controller-based networking architecture?

A. communicates between the controller and the physical network hardware
B. reports device errors to a controller
C. generates statistics for network hardware and traffic
D. facilitates communication between the controller and the applications

Answer: D

NEW QUESTION 57
- (Exam Topic 1)
Drag and drop the DNS lookup components from the left onto the functions on the right.

Answer Area

cache	local database of address mappings that improves name-resolution performance
DNS	service that maps hostnames to IP addresses
domain	disable DNS services on a Cisco device
name resolver	in response to client requests, queries a name server for IP address information
no ip domain lookup	component of a URL that indicates the location or organization type, such as .com or .edu

A. Mastered
B. Not Mastered

Answer: A

Explanation:
Diagram Description automatically generated

NEW QUESTION 61
- (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 65
- (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 68
- (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 73
- (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:

802.11a	802.11n
802.11ac	802.11g
802.11b	802.11ac
802.11g	802.11b
802.11n	802.11a

NEW QUESTION 75
- (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 76
- (Exam Topic 1)
Which state does the switch port move to when PortFast is enabled?

A. forwarding
B. listening
C. blocking
D. learning

Answer: A

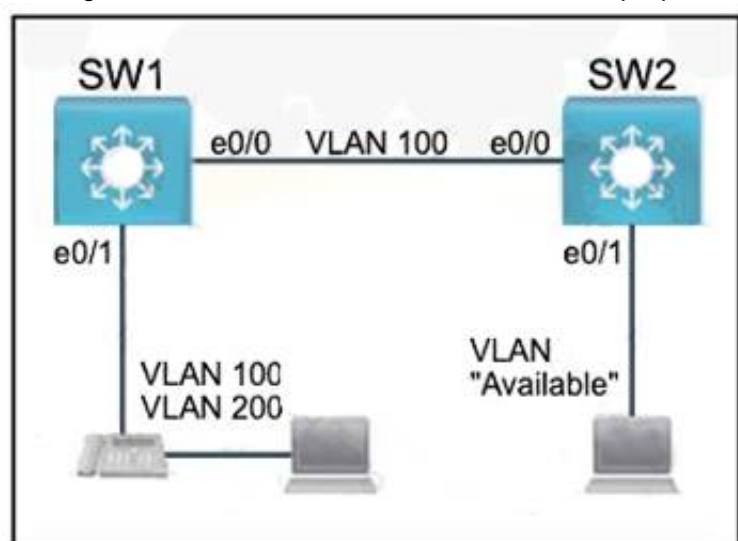**NEW QUESTION 77**
- (Exam Topic 5)

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.

All physical cabling between the two switches is installed. Configure the network connectivity between the switches using the designated VLANs and interfaces.
* 1. Configure VLAN 100 named Compute and VLAN 200 named Telephony where required for each task.
* 2. Configure Ethernet0/1 on SW2 to use the existing VLAN named Available.
* 3. Configure the connection between the switches using access ports.
* 4. Configure Ethernet0/1 on SW1 using data and voice VLANs.
* 5. Configure Ethemet0/1 on SW2 so that the Cisco proprietary neighbor discovery protocol is turned off for the designated interface only.

A. Mastered
B. Not Mastered

Answer: A

Explanation:
Answer as below configuration:
on sw1 enable conf t vlan 100
name Compute vlan 200
name Telephony int e0/1
switchport voice vlan 200 switchport access vlan 100 int e0/0
switchport mode access do wr
on sw2
Vlan 99
Name Available Int e0/1
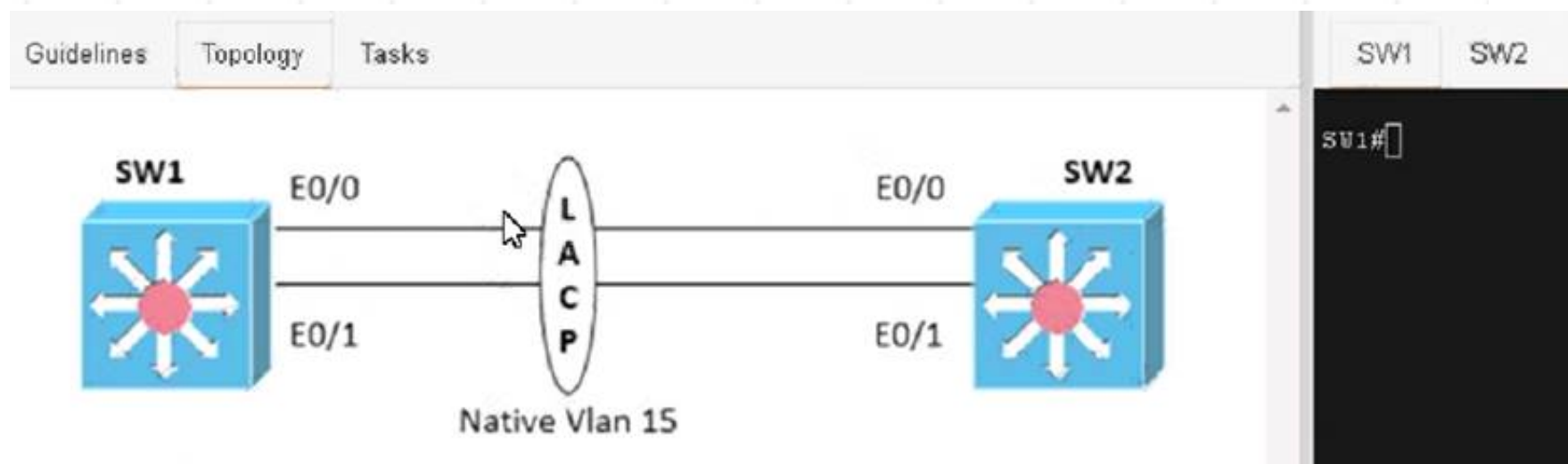Switchport access vlan 99 do wr

NEW QUESTION 81
- (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.

Guidelines

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- 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.

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

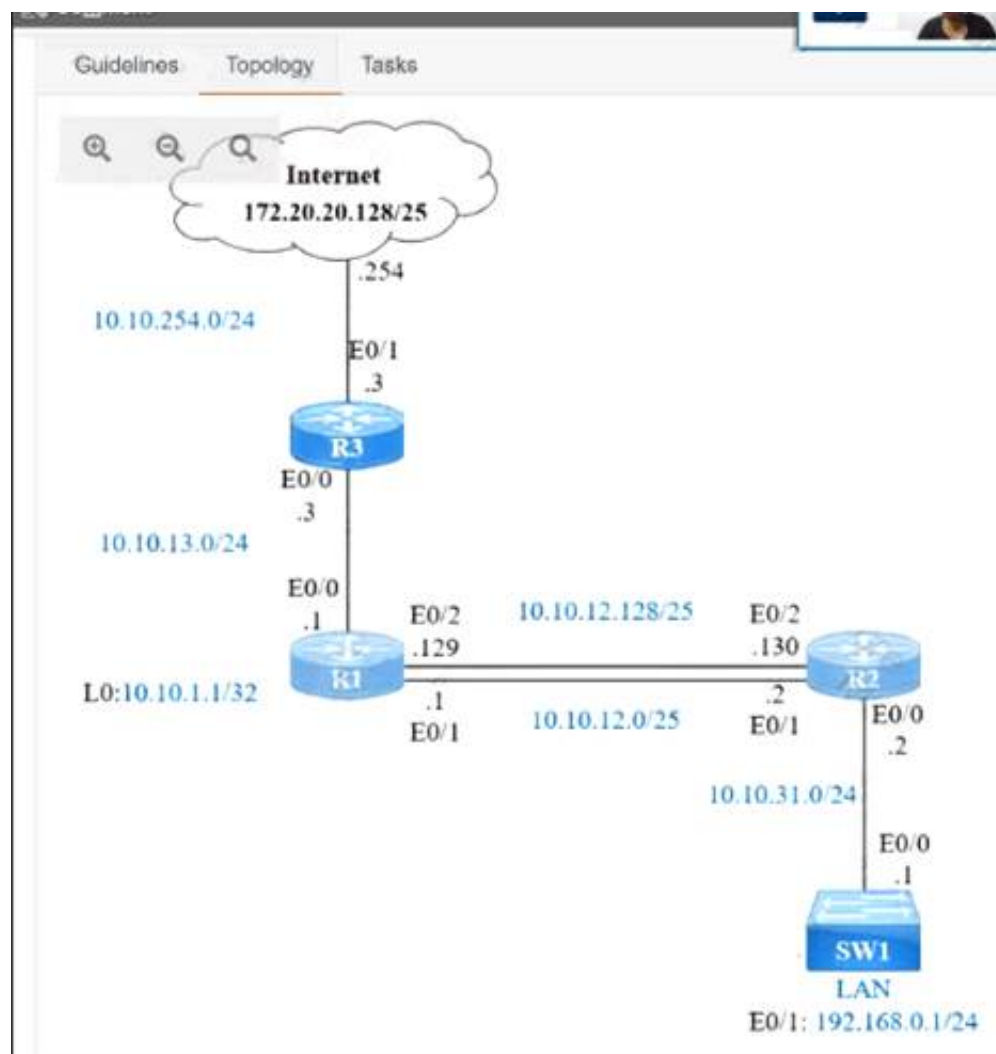**NEW QUESTION 85**
- (Exam Topic 5)

Guidelines   Topology   Tasks

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.

E0/0
.1
E0/2   10.10.12.128/25   E0/2
.129   .130
L0:10.10.1.1/32   R1   R2
.1   .2   E0/0
E0/1   10.10.12.0/25   E0/1   .2

10.10.31.0/24

E0/0
.1
SW1
LAN
E0/1: 192.168.0.1/24

Guidelines   Topology   Tasks

Internet
172.20.20.128/25

.254

10.10.254.0/24
E0/1
.3

R3

E0/0
.3

10.10.13.0/24

E0/0
.1
E0/2   10.10.12.128/25   E0/2
.129   .130
L0:10.10.1.1/32   R1   R2
.1   .2   E0/0
E0/1   10.10.12.0/25   E0/1   .2

10.10.31.0/24

E0/0
.1
SW1
LAN
E0/1: 192.168.0.1/24

IP connectivity and OSPF are preconfigured on all devices where necessary. Do not make any changes to the IP addressing or OSPF. The company policy uses connected interfaces and next hops when configuring static routes except for load balancing or redundancy without floating static. Connectivity must be established between subnet 172.20.20.128/25 on the Internet and the LAN at 192.168.0.0/24 connected to SW1:
* 1. Configure reachability to the switch SW1 LAN subnet in router R2.
* 2. Configure default reachability to the Internet subnet in router R1.
* 3. Configure a single static route in router R2 to reach to the Internet subnet considering both redundant links between routers R1 and R2. A default route is NOT allowed in router R2.
* 4. Configure a static route in router R1 toward the switch SW1 LAN subnet where the primary link must be through Ethernet0/1. and the backup link must be through Ethernet0/2 using a floating route. Use the minimal administrative distance value when required.

A. Mastered
B. Not Mastered

Answer: A

Explanation:
Answer as below configuration:
On R2:
Enable Conf t
Ip route 192.168.1.0 255.255.255.0 10.10.31.1
On R1:
Enable Conf t
Ip route 0.0.0.0 0.0.0.0 10.10.13.3
On R2
Ip route 172.20.20.128 255.255.255.128 e0/2
Ip route 172.20.20.128 255.255.255.128 e0/1
On R1
Ip route 192.168.0.0 255.255.255.0 e0/1
Ip route 192.168.0.0 255.255.255.0 10.10.12.2 3
Save all configurations after every router from anyone of these command Do wr
Or
Copy run start

NEW QUESTION 87
- (Exam Topic 4)
A network engineer is implementing a corporate SSID for WPA3-Personal security with a PSK. Which encryption cipher must be configured?

A. GCMP2S6
B. GCMP128
C. CCMP256
D. CCMP128

Answer: D

NEW QUESTION 90
- (Exam Topic 4)
What must a network administrator consider when deciding whether to configure a new wireless network with APs in autonomous mode or APs running in cloud-based mode?

A. Autonomous mode APs are less dependent on an underlay but more complex to maintain than APs in cloud-based mode.

B. Cloud-based mode APs relay on underlays and are more complex to maintain than APs in autonomous mode.
C. Cloud-based mode APs are easy to deploy but harder to automate than APs in autonomous mode.
D. Autonomous mode APs are easy to deploy and automate than APs in cloud-based mode.

Answer: A

NEW QUESTION 91
- (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 95
- (Exam Topic 4)
Drag and drop the virtualization concepts from the left onto the matching statements on the right.

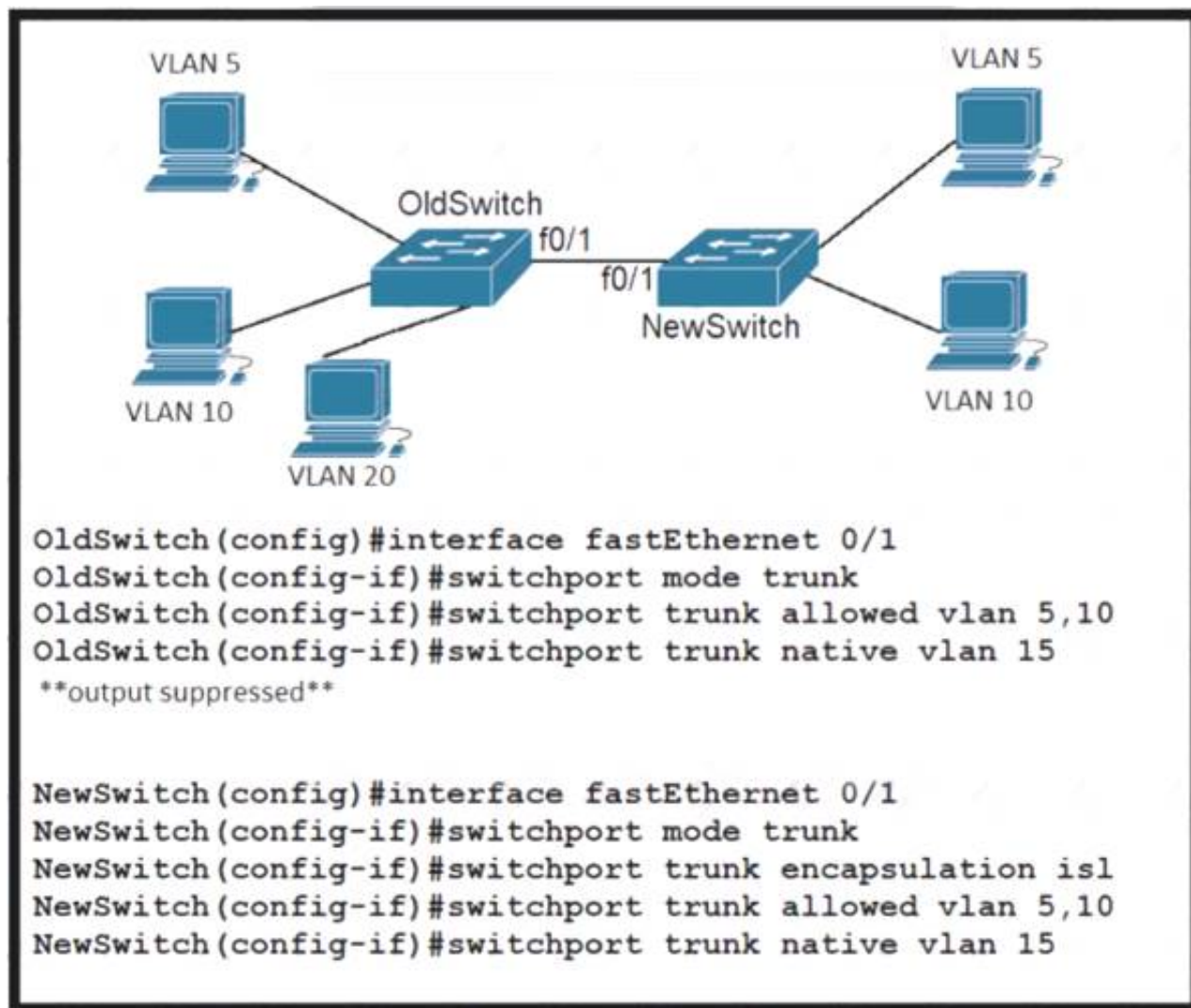|	
guest operating system	An operating system instance that is decoupled from the server hardware.
host operating system	Each core can run more than one process simultaneously.
hypervisor	Runs on a physical server, manages, and allocates the physical resources.
multithreading	The software that manages the basic functions of the physical hardware.
virtual machine	The software that manages the basic functions of the vital machine.

A. Mastered
B. Not Mastered

Answer: A

Explanation:

guest operating system	virtual machine
host operating system	multithreading
hypervisor	hypervisor
multithreading	guest operating system
virtual machine	host operating system

NEW QUESTION 98
- (Exam Topic 4)
Refer to the exhibit.

```
OldSwitch(config)#interface fastEthernet 0/1
OldSwitch(config-if)#switchport mode trunk
OldSwitch(config-if)#switchport trunk allowed vlan 5,10
OldSwitch(config-if)#switchport trunk native vlan 15
 **output suppressed**


NewSwitch(config)#interface fastEthernet 0/1
NewSwitch(config-if)#switchport mode trunk
NewSwitch(config-if)#switchport trunk encapsulation isl
NewSwitch(config-if)#switchport trunk allowed vlan 5,10
NewSwitch(config-if)#switchport trunk native vlan 15
```

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 99
- (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 104

- (Exam Topic 4)
Which two transport layer protocols carry syslog messages? (Choose two.)

A. TCP
B. IP
C. RTP
D. UDP
E. ARP

Answer: AD

NEW QUESTION 109
- (Exam Topic 4)
Drag and drop the Rapid PVST+ forwarding state actions from the left to the right. Not all actions are used.

BPDUs received are forwarded to the system module	action
BPDUs received from the system module are processed and transmitted	action
Frames received from the attached segment are discarded	action
Frames received from the attached segment are processed	action
Switched frames received from other ports are advanced	
The port in the forwarding state responds to network management messages	

A. Mastered
B. Not Mastered

Answer: A

Explanation:
* 1. BPDUs received are forwarded to the system module.
* 2. Frames received from the attached segment are processed.
* 3. Switched frames received from other ports are advanced.
* 4. The port in the forwarding state responds to network management messages.
https://www.cisco.com/c/en/us/td/docs/switches/datacenter/nexus5000/sw/layer2/503_n1_1/Cisco_n5k_layer2_c

NEW QUESTION 113
- (Exam Topic 4)
How does frame switching function on a switch?

A. forwards frames to a neighbor port using CDP
B. modifies frames that contain a known source VLAN
C. inspects and drops frames from unknown destinations
D. forwards known destinations to the destination port

Answer: D

NEW QUESTION 116
- (Exam Topic 4)
Which 802.11 frame type is Association Response?

A. management
B. control
C. action
D. protected frame

Answer: A

NEW QUESTION 117

- (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

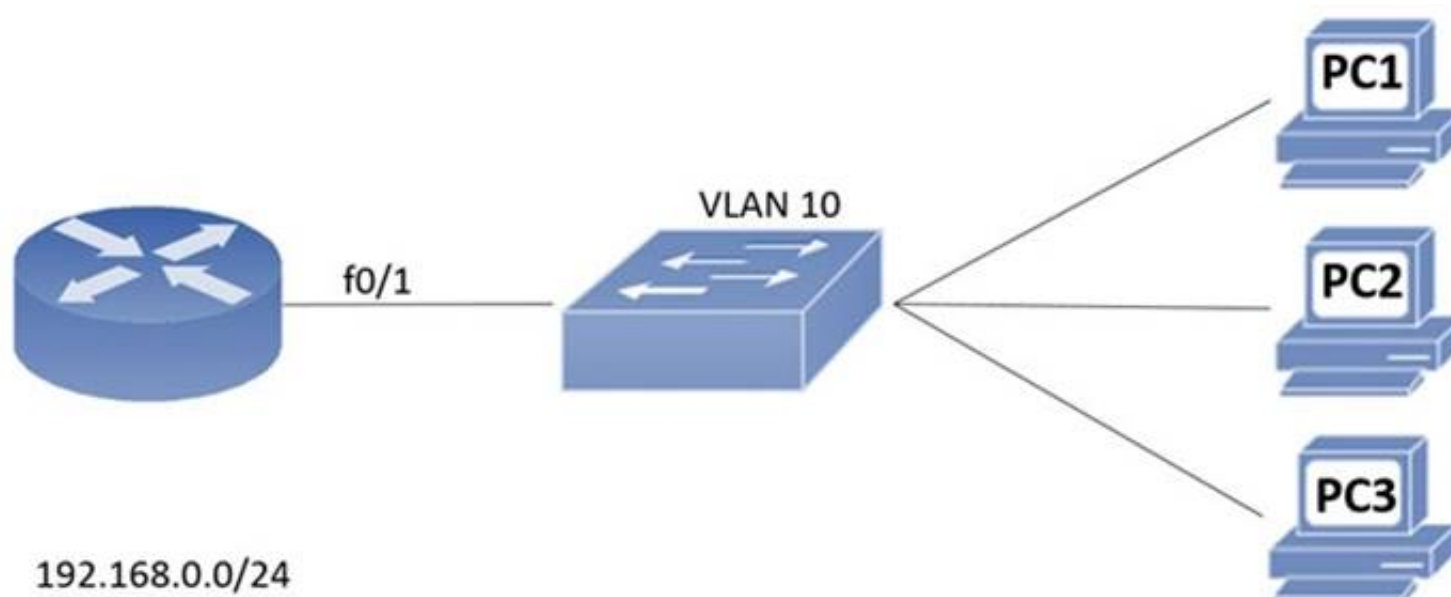| requires clients to pull configurations from the server |
| operates without agents |

A. Mastered
B. Not Mastered

Answer: A

Explanation:

executes modules via SSH by default	operates without agents
uses the YAML language	executes modules via SSH by default
uses agents to manage hosts	uses agents to manage hosts
pushes configurations to the client	pushes configurations to the client

| requires clients to pull configurations from the server |
| operates without agents |

NEW QUESTION 122
- (Exam Topic 4)
Refer to the exhibit.

An engineer assigns IP addressing to the current VLAN with three PCs. The configuration must also account for the expansion of 30 additional VLANS using the same Class C subnet for subnetting and host count. Which command set fulfills the request while reserving address space for the expected growth?

A. Switch(config)#interface vlan 10Switch(config-if)#ip address 192.168.0.1 265 255.255.252
B. Switch(config)#interface vlan 10Switch(config-if)#ip address 192.168.0.1 255 255.255.248
C. Switch(config)#interface vlan 10Switch(config-if)#ip address 192.168.0.1 255 255.255.0
D. Switch(config)#interface vlan 10Switch(config-if)#ip address 192.168.0.1 255.255.255.128

Answer: B

NEW QUESTION 124

- (Exam Topic 4)
By default, how long will the switch continue to know a workstation MAC address after the workstation stops sending traffic?

A. 200 seconds
B. 300 seconds
C. 600 seconds
D. 900 seconds

Answer: B

NEW QUESTION 126
- (Exam Topic 4)
What are two reasons a switch experiences frame flooding? (Choose two.)

A. A defective patch cable is connected to the switch port
B. Topology changes are occurring within spanning-tree
C. An aged MAC (able entry is causing excessive updates
D. Port-security is configured globally
E. The forwarding table has overflowed

Answer: AB

NEW QUESTION 131
- (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 135
- (Exam Topic 4)
Drag and drop the TCP or UDP details from the left onto their corresponding protocols on the right.

A. Mastered
B. Not Mastered

Answer: A

Explanation:
Graphical user interface, application Description automatically generated

NEW QUESTION 140
- (Exam Topic 4)
Which two IPv6 addresses are used to provide connectivity between two routers on a shared link? (Choose two)

A. ::ffif 1014 1011/96
B. 2001 7011046:1111:1/64
C. ;jff06bb43cd4dd111bbff02 4545234d
D. 2002 5121204b 1111:1/64
E. FF02::0WlFF00:0l)00/104

Answer: B

NEW QUESTION 143
- (Exam Topic 4)
Refer to the exhibit.

```
SW1#show run
Building configuration...
!
hostname SW1
!
ip domain-name CCNA-test
!
username CCNA privilege 1 password 0 cisco123
!
interface FastEthernet0/1
 switchport access vlan 10
!
interface Vlan10
 ip address 192.168.1.2 255.255.255.0
!
line vty 0 4
 login local
 transport input telnet
line vty 5 15
 login local
 transport input telnet

SW1#show crypto key mypubkey rsa
% Key pair was generated at: 0:1:23 UTC Mar 1 2020
Key name: SW1.CCNA-test
```

An engineer is updating the management access configuration of switch SW1 to allow secured, encrypted remote configuration. Which two commands or command sequences must the engineer apply to the switch? (Choose two.)

A. SW1(config)#enable secret ccnaTest123
B. SW1(config)#username NEW secret R3mote123
C. SW1(config)#line vty 0 15 SW1(config-line)#transport input ssh
D. SW1(config)# crypto key generate rsa
E. SW1(config)# interface f0/1 SW1(confif-if)# switchport mode trunk

Answer: CD
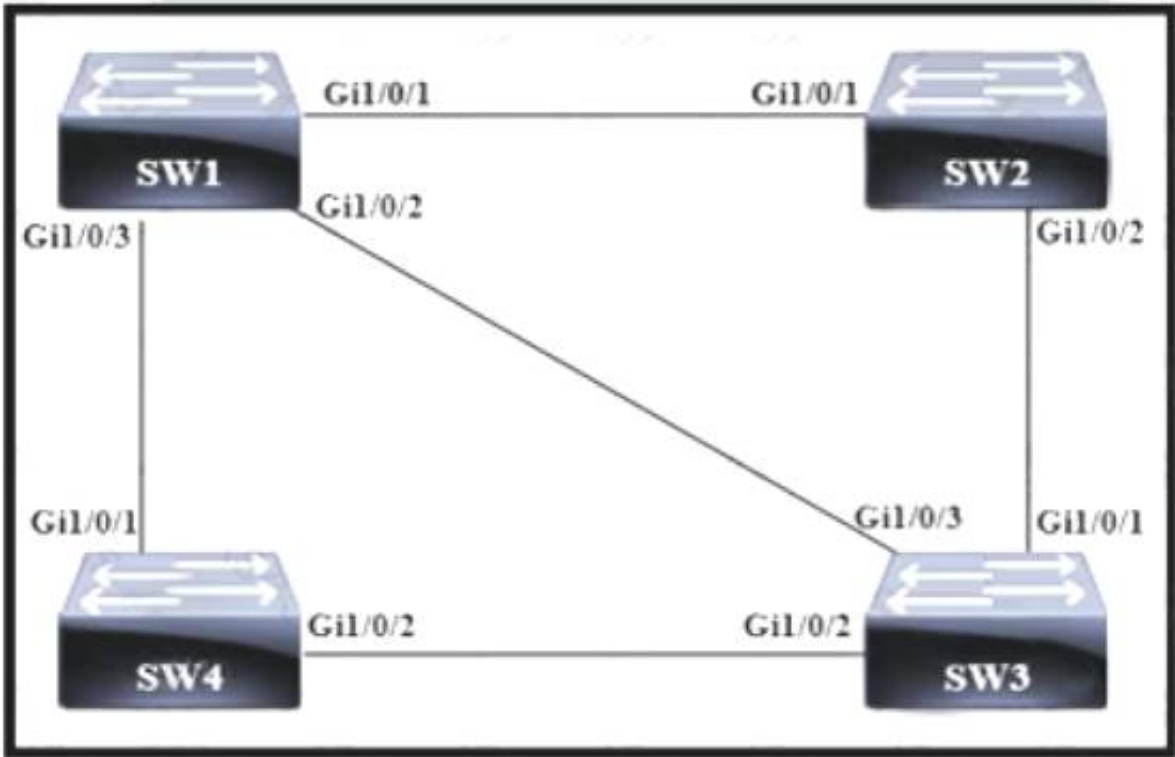

NEW QUESTION 146
- (Exam Topic 4)
A network engineer must migrate a router loopback interface to the IPv6 address space. If the current IPv4 address of the interface is 10.54.73.1/32, and the engineer configures IPv6 address 0.0.0.0:ffff:a36:4901, which prefix length must be used?

A. /64
B. /96
C. /124
D. /128

Answer: D

NEW QUESTION 151
- (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 154
- (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, 5 subnets, 5 masks
O     172.16.2.128/25 [110/3184437] via 207.165.200.250, 00:00:25, Serial0/0/0
O     172.16.3.64/27 [110/3184437] via 207.165.200.250, 00:00:25, Serial0/0/0
O     172.16.3.128/28 [110/3184437] via 207.165.200.250, 00:00:25, Serial0/0/0
O     172.16.3.192/29 [110/3184437] via 207.165.200.250, 00:00:25, Serial0/0/0
O     172.16.4.0/23 [110/3184437] via 207.165.200.250, 00:00:25, Serial0/0/0
      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
```

Drag and drop the learned prefixes from the left onto the subnet masks on the right

172.16.3.128		255.255.254.0	
172.16.3.64		255.255.255.128	
172.16.2.128		255.255.255.224	
172.16.3.192		255.255.255.240	
172.16.4.0		255.255.255.248	

A. Mastered
B. Not Mastered

Answer: A

Explanation:

172.16.3.128	172.16.4.0
172.16.3.64	172.16.2.128
172.16.2.128	172.16.3.64
172.16.3.192	172.16.3.128
172.16.4.0	172.16.3.192

NEW QUESTION 158
- (Exam Topic 4)
Refer to the exhibit.

```
C:\>ipconfig /all
Ethernet adapter Ethernet:
   Connection-specific DNS Suffix  . :
   Physical Address. . . . . . . . . : F8-75-A4-3B-AB-4F
   Link-local IPv6 Address . . . . . : fe80::644a:b01:3e5f:ae6%14(Preferred)
   IPv4 Address. . . . . . . . . . . : 10.2.2.2(Preferred)
   Subnet Mask . . . . . . . . . . . : 255.255.255.192
   Default Gateway . . . . . . . . . : 10.2.2.1
   DHCP Server . . . . . . . . . . . : 192.168.1.15
   DNS Servers . . . . . . . . . . . : 8.8.8.8
   NetBIOS over Tcpip. . . . . . . . : Enabled
```

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 162
- (Exam Topic 4)
What is a characteristic of RSA?

A. It uses preshared keys for encryption
B. It requires both sides to have identical keys
C. It is a private-key encryption algorithm

D. It is a public-key cryptosystem

Answer: D

NEW QUESTION 167
- (Exam Topic 4)
What is a reason to implement IPv4 private addressing?

A. Reduce the risk of a network security breach
B. Comply with PCI regulations
C. Comply with local law
D. Reduce the size of the forwarding table on network routers

Answer: D

NEW QUESTION 170
- (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: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 174
- (Exam Topic 4)
Drag and drop the device behaviors from the left onto the matching HSRP slate on the right.

has heard from the neighbor device and is receiving hello packets	Active
is forwarding packets	Learn
is ready to forward packets if the device that is currently forwarding packets fails	Listen
is transmitting and receiving hello packets	Speak
is waiting to hear from the neighbor device	Standby

A. Mastered
B. Not Mastered

Answer: A

Explanation:

has heard from the neighbor device and is receiving hello packets	is forwarding packets
is forwarding packets	has heard from the neighbor device and is receiving hello packets
is ready to forward packets if the device that is currently forwarding packets fails	is waiting to hear from the neighbor device
is transmitting and receiving hello packets	is transmitting and receiving hello packets
is waiting to hear from the neighbor device	is ready to forward packets if the device that is currently forwarding packets fails

NEW QUESTION 179
- (Exam Topic 4)
Drag and drop the Wi-Fi terms from the left onto the descriptions on the right.

distribution system	Wi-Fi option in which cells from different access points are linked together
extended service set	Wi-Fi option that enables two or more clients to communicate directly without a central access point
independent basic service set	Wi-Fi option based around one or more access points
infrastructure mode	alphanumeric text string that identifies a wireless network
SSID	entire wireless cell of an access point and the linkage to the wired network

A. Mastered
B. Not Mastered

Answer: A

Explanation:

distribution system	distribution system
extended service set	independent basic service set
independent basic service set	extended service set
infrastructure mode	SSID
SSID	infrastructure mode

NEW QUESTION 184
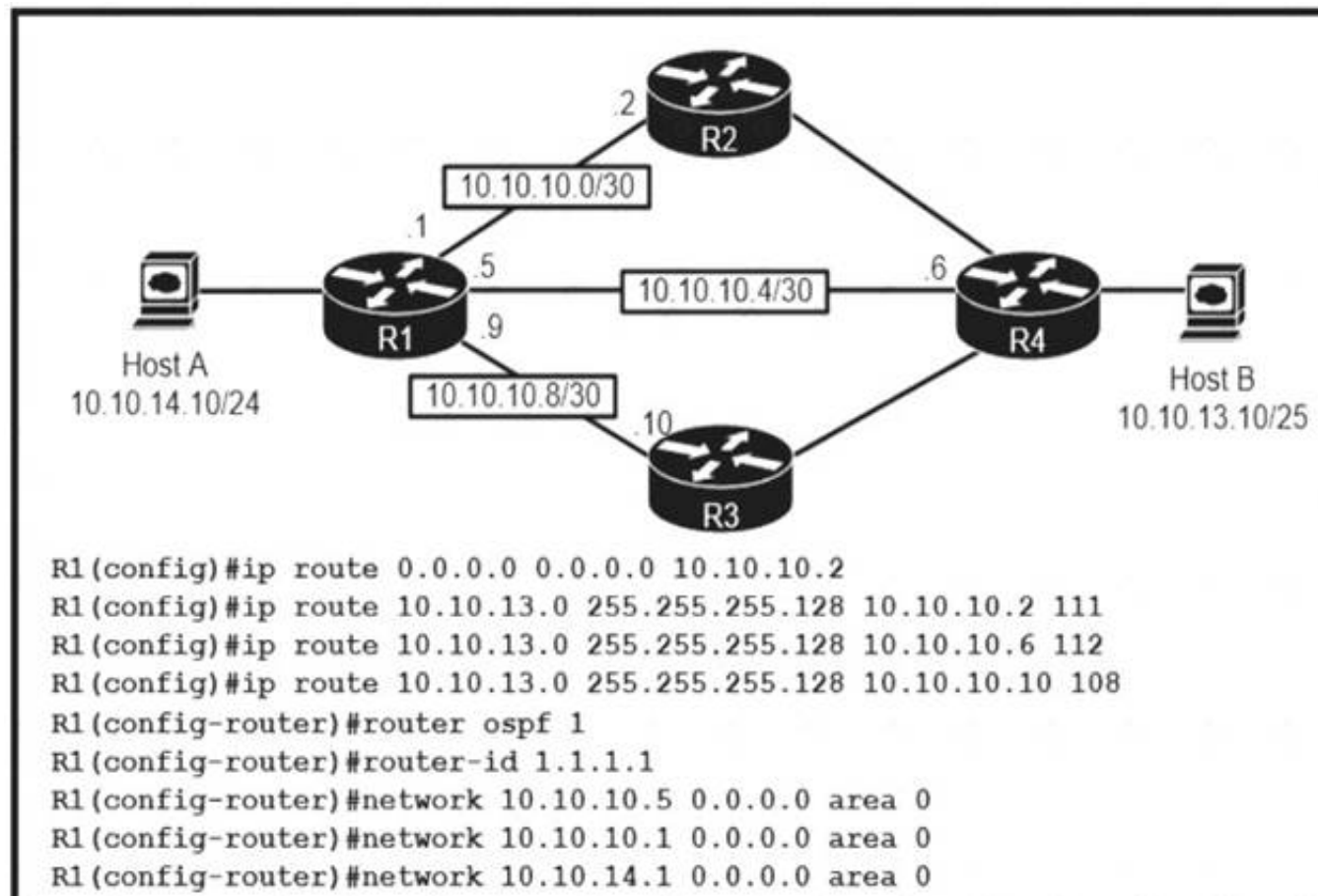- (Exam Topic 4)

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 186
- (Exam Topic 4)
Refer to the exhibit.


```
R1(config)#ip route 0.0.0.0 0.0.0.0 10.10.10.2
R1(config)#ip route 10.10.13.0 255.255.255.128 10.10.10.2 111
R1(config)#ip route 10.10.13.0 255.255.255.128 10.10.10.6 112
R1(config)#ip route 10.10.13.0 255.255.255.128 10.10.10.10 108
R1(config-router)#router ospf 1
R1(config-router)#router-id 1.1.1.1
R1(config-router)#network 10.10.10.5 0.0.0.0 area 0
R1(config-router)#network 10.10.10.1 0.0.0.0 area 0
R1(config-router)#network 10.10.14.1 0.0.0.0 area 0
```

R1 has just received a packet from host A that is destined to host B. Which route in the routing table is used by R1 to reac B?

A. 10.10.13.0/25 [108/0] via 10.10.10.10
B. 10.10.13.0/25 [110/2] via 10.10.10.2
C. 10.10.13.0/25 [110/2] via 10.10.10.6
D. 10.10.13.0/25 [1/0] via 10.10.10.2

Answer: D

NEW QUESTION 188
- (Exam Topic 4)
Which remote access protocol provides unsecured remote CLI access?

A. console
B. Telnet
C. Bash
D. SSH

Answer: B

NEW QUESTION 191
- (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 192
- (Exam Topic 4)
Drag and drop each characteristic of device-management technologies from the left onto the deployment type on the right.

	Cisco DNA Center
relies on per-device management	
uses individual software management	
orchestrates background device configuration	

	Traditional
supports open APIs	
provides greater flexibility for custom and non-standard configurations	
supports centralized software management	

A. Mastered
B. Not Mastered

Answer: A

Explanation:
A picture containing diagram Description automatically generated

NEW QUESTION 195
- (Exam Topic 4)
What are two characteristics of a small office / home office connection environment? (Choose two.)

A. It requires 10Gb ports on all uplinks.
B. It supports between 50 and 100 users.
C. It supports between 1 and 50 users.
D. It requires a core, distribution, and access layer architecture.
E. A router port connects to a broadband connection.

Answer: CE

NEW QUESTION 196
- (Exam Topic 4)
Drag and drop the HTTP methods used with REST-Based APIs from the left onto the descriptions on the right.

DELETE	creates a resource and returns its URI in the response header
GET	creates or replaces a previously modified resource using information in the request body
POST	removes a resource
PATCH	retrieves a list of a resource's URIs
PUT	updates a resource using instructions included in the request body

A. Mastered
B. Not Mastered

Answer: A

Explanation:
Table Description automatically generated

NEW QUESTION 200
- (Exam Topic 4)
Refer to Exhibit.

Rotor to the exhibit. The IP address configurations must be completed on the DC-1 and HQ-1 routers based on these requirements:

DC-1 Gi1/0 must be the last usable address on a /30 DC-1 Gi1/1 must be the first usable address on a /29 DC-1 Gi1/2 must be the last usable address on a /28 HQ-1 Gil/3 must be the last usable address on a /29

Drag and drop the commands from the left onto the destination interfaces 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 204
- (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 209
- (Exam Topic 4)
Refer to the exhibit.

Routers R1 and R2 are configured with RIP as the dynamic routing protocol. A network engineer must configure R1 with a floating static route to serve as a backup route to network 192.168.23. Which command must the engineer configure on R1?

A. ip route 192.168.23.0 255.255.255.0 192.168.13.3 100
B. ip route 192.168.23.0 255.255.255.0 192.168.13.3 121
C. ip route 192.168.23.0 255.255.255.255 192.168.13.3 121
D. ip route 192.168.23.0 255.255.255.0 192.168.13.3

Answer: B

NEW QUESTION 212
- (Exam Topic 4)
Refer to the exhibit.


```
R1#show ip route 10.10.2.1
Routing entry for 10.10.2.0/24
Known via "ospf 1", distance 110, metric 2, type intra area
  Last update from 192.168.1.2 on GigabitEthernet0/0, 01:23:15 ago
  Routing Descriptor Blocks:
  * 192.168.1.2, from 192.168.1.2, 01:23:15 ago, via GigabitEthernet0/0
      Route metric is 2, traffic share count is 1
```

Traffic from R1 to the 10.10.2.0/24 subnet uses 192.168.1.2 as its next hop. An network engineer wants to update the R1 configuration so that traffic with destination 10.10.2.1 passes through router R3, and all other traffic to the 10.10.20/24 subnet passes through r2. Which command must be used?

A. Ip route 10.10.2.1 255.255.255.255 192.168.1.4 115
B. Ip route 10.10.2.0 255.255.255.0 192.168.1.4 100
C. Ip route 10.10.2.0 255.255.255.0 192.168.1.4 115
D. Ip route 10.10.2.1 255.255.255.255 192.168.1.4 100

Answer: D

NEW QUESTION 214
- (Exam Topic 4)
Refer to the exhibit.

Clients on the WLAN are required to use 802.11r. What action must be taken to meet the requirement?

A. Under Protected Management Frames, set the PMF option to Required.
B. Enable CCKM under Authentication Key Management.
C. Set the Fast Transition option and the WPA gtk-randomize State to disable.
D. Set the Fast Transition option to Enable and enable FT 802.1X under Authentication Key Management.

Answer: D

NEW QUESTION 217
- (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 rotes tor data and voice traffic.

Answer: DE

NEW QUESTION 219
- (Exam Topic 4)
What is the primary purpose of private address space?

A. conserve globally unique address space
B. simplify the addressing in the network
C. limit the number of nodes reachable via the Internet
D. reduce network complexity

Answer: A

NEW QUESTION 222
- (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 226
- (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 230
- (Exam Topic 4)
Which interface enables communication between a program on the controller and a program on the networking devices?

A. northbound interface
B. software virtual interface
C. southbound interface
D. tunnel Interface

Answer: B

NEW QUESTION 233
- (Exam Topic 4)
Refer to the exhibit. Local access for R4 must be established and these requirements must be met:
• Only Telnet access is allowed.
• The enable password must be stored securely.
• The enable password must be applied in plain text.
• Full access to R4 must be permitted upon successful login.
Which configuration script meets the requirements?
A)

```
!
conf t
!
username test1 password testpass1
enable secret level 15 0 Test123
!
line vty 0 15
 login local
 transport input telnet
```

B)

```
!
config t
!
username test1 password testpass1
enable password level 15 0 Test123
!
line vty 0 15
 password Test123
 transport input all
```

C)

```
!
config t
!
username test1 password testpass1
enable password level 1 7 Test123
!
line vty 0 15
 accounting exec default
 transport input all
```

D)

```
!
config t
!
username test1 password testpass1
enable password level 1 7 Test123
!
line vty 0 15
 accounting exec default
 transport input all
```

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

Answer: D

NEW QUESTION 234
- (Exam Topic 4)
Which syslog severity level is considered the most severe and results in the system being considered unusable?

A. Alert
B. Error
C. Emergency
D. Critical

Answer: C

NEW QUESTION 235
- (Exam Topic 4)
Refer to the exhibit.

```
Entry #
1        192.168.10.0 255.255.254.0
2        192.168.10.0 255.255.255.192
3        192.168.10.0 255.255.0.0
4        192.168.10.0 255.255.224.0
```

Which entry is the longest prefix match for host IP address 192.168.10.5?

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

Answer: B

NEW QUESTION 238
- (Exam Topic 4)
Which component controls and distributes physical resources for each virtual machine?

A. OS
B. hypervisor
C. CPU
D. physical enclosure

Answer: B

NEW QUESTION 243
- (Exam Topic 4)
Refer to the exhibit.

```
Current Neighbor Relationship

Neighbor ID   Pri  State      Dead Time  Address      Interface
192.168.1.1    1   FULL/DR    00:00:33   192.168.1.1  GigabitEthernet0/0

Desired Neighbor Relationship

Neighbor ID   Pri  State      Dead Time  Address      Interface
192.168.1.1    0   FULL/ -    00:00:31   192.168.1.1  GigabitEthernet0/0
```

How must OSPF be configured on the GigabitEthernet0/0 interface of the neighbor device to achieve.

A)

```
Router(config)#interface GigabitEthernet 0/0
Router(config-if)#ip ospf priority 1
```

B)

```
Router(config)#interface GigabitEthernet 0/0
Router(config-if)#ip ospf 1 area 2
```

C)

```
Router(config)#interface GigabitEthernet 0/0
Router(config-if)#ip ospf cost 5
```

D)

```
Router(config)#interface GigabitEthernet 0/0
Router(config-if)#ip ospf network point-to-point
```

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

Answer: A

NEW QUESTION 247
- (Exam Topic 4)
An engineer is configuring SSH version 2 exclusively on the R1 router. What is the minimum configuration required to permit remote management using the cryptographic protocol?

hostname R1

ip domain name cisco

crypto key generate rsa general-keys modulus 1024

username cisco privilege 15 password 0 cisco123

ip ssh version 2

line vty 0 15
 transport input ssh
 login local

hostname R1

crypto key generate rsa general-keys modulus 1024

username cisco privilege 15 password 0 cisco123

ip ssh version 2

line vty 0 15
 transport input all
 login local

hostname R1

service password-encryption

crypto key generate rsa general-keys modulus 1024

username cisco privilege 15 password 0 cisco123

ip ssh version 2

line vty 0 15
 transport input ssh
 login local

hostname R1

ip domain name cisco

crypto key generate rsa general-keys modulus 1024

username cisco privilege 15 password 0 cisco123

ip ssh version 2

line vty 0 15
 transport input all
 login local

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

Answer: C

NEW QUESTION 251
- (Exam Topic 4)
Refer to the exhibit.

A Cisco engineer creates a new WLAN called lantest. Which two actions must be performed so that only high-speed 2.4-Ghz clients connect? (Choose two.)

A. Enable the Broadcast SSID option
B. Enable the Status option.
C. Set the Radio Policy option to 802 11g Only.
D. Set the Radio Policy option to 802.11a Only.
E. Set the Interface/Interface Group(G) to an interface other than guest

Answer: AB

NEW QUESTION 255
- (Exam Topic 4)
Which properly 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 260
- (Exam Topic 4)
Refer to the exhibit.

The network engineer is configuring a new WLAN and is told to use a setup password for authentication instead of the RADIUS servers. Which additional set of tasks must the engineer perform to complete the configuration?

A. Disable PMF Enable PSK Enable 802.1x
B. Select WPA Policy Enable CCKM Enable PSK
C. Select WPA Policy Select WPA2 Policy Enable FT PSK
D. Select WPA2 Policy Disable PMF Enable PSK

Answer: D

NEW QUESTION 261
- (Exam Topic 4)
A network engineer is replacing the switches that belong to a managed-services client with new Cisco Catalyst switches. The new switches will be configured for updated security standards, including replacing Telnet services with encrypted connections and doubling the modulus size from 1024. Which two commands must the engineer configure on the new switches? (Choose two.)

A. crypto key generate rsa general-keys modulus 1024
B. transport input all
C. crypto key generate rsa usage-keys
D. crypto key generate rsa modulus 2048
E. transport Input ssh

Answer: AE

NEW QUESTION 266
- (Exam Topic 4)

Which enhancement is implemented in WPA3?

A. applies 802.1x authentication
B. usesTKIP
C. employs PKI to identify access points
D. protects against brute force attacks

Answer: D

NEW QUESTION 271
- (Exam Topic 4)
Refer to the exhibit.

```
R1#show ip ospf interface g0/0/0
GigabitEthernet0/0/0 is up, line protocol is up
  Internet address is 192.168.1.2/24, Area 0
  Process ID 1, Router ID 192.168.1.2, Network Type POINT-TO-POINT, Cost: 1
  Transmit Delay is 1 sec, State POINT-TO-POINT,
  Timer intervals configured, Hello 15, Dead 20, Wait 20, Retransmit 5
    Hello due in 00:00:08
  Index 1/1, flood queue length 0
  Next 0x0(0)/0x0(0)
  Last flood scan length is 1, maximum is 1
  Last flood scan time is 0 msec, maximum is 0 msec
  Suppress hello for 0 neighbor(s)

R2#show ip ospf interface g0/0/0
GigabitEthernet0/0/0 is up, line protocol is up
  Internet address is 192.168.1.1/24, Area 0
  Process ID 1, Router ID 10.1.1.1, Network Type POINT-TO-POINT, Cost: 1
  Transmit Delay is 1 sec, State POINT-TO-POINT,
  Timer intervals configured, Hello 10, Dead 40, Wait 40, Retransmit 5
    Hello due in 00:00:11
  Index 1/1, flood queue length 0
  Next 0x0(0)/0x0(0)
  Last flood scan length is 1, maximum is 1
  Last flood scan time is 0 msec, maximum is 0 msec
  Suppress hello for 0 neighbor(s)
```

The network engineer is configuring router R2 as a replacement router on the network After the initial configuration is applied it is determined that R2 failed to show R1 as a neighbor Which configuration must be applied to R2 to complete the OSPF configuration and enable it to establish the neighbor relationship with R1?

A)
```
R2(config)#router ospf 1
R2(config-router)#network 192.168.1.0 255.255.255.0 area 2
R2(config-router)#network 10.1.1.0 255.255.255.255 area 2
```

B)
```
R2(config)#router ospf 1
R2(config-router)#router-id 192.168.1.2
```

C)
```
R2(config)#interface g0/0/0
R2(config-if)#ip ospf dead-interval 20
```

D)
```
R2(config)#interface g0/0/0
R2(config-if)#ip ospf hello-interval 15
R2(config-if)#ip ospf dead-interval 20
```

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

Answer: D

NEW QUESTION 276
- (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 281
- (Exam Topic 4)
What does the implementation of a first-hop redundancy protocol protect against on a network?

A. root-bridge loss
B. spanning-tree loops
C. default gateway failure
D. BGP neighbor flapping

Answer: C

NEW QUESTION 284
- (Exam Topic 4)
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, 03:22:14
        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
```

What is the subnet mask of the route to the 10.10.13.160 prefix?

A. 255.255.255.240
B. 255.255.255.128
C. 255.255.255.248.
D. 255.255.255.248

Answer: D

NEW QUESTION 288
- (Exam Topic 4)
Which two practices are recommended for an acceptable security posture in a network? (Choose two)

A. Backup device configurations to encrypted USB drives for secure retrieval
B. maintain network equipment in a secure location
C. Use a cryptographic keychain to authenticate to network devices
D. Place internal email and file servers in a designated DMZ
E. Disable unused or unnecessary ports, interfaces and services

Answer: CE

NEW QUESTION 293
- (Exam Topic 4)
What provides connection redundancy increased bandwidth and load sharing between a wireless LAN controller and a Layer 2 switch?

A. VLAN trunking
B. tunneling
C. first hop redundancy
D. link aggregation

Answer: D

NEW QUESTION 294
- (Exam Topic 4)
Which IPv6 address range is suitable for anycast addresses for distributed services such DHCP or DNS?
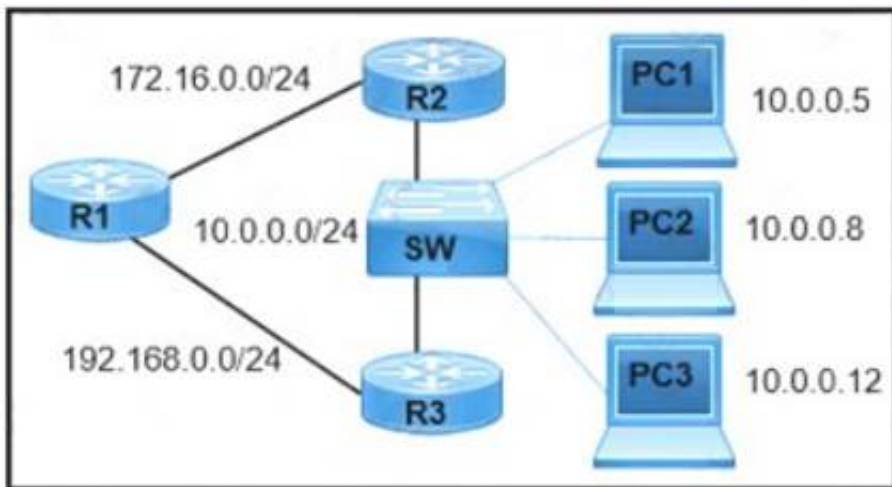
A. FF00:1/12
B. 2001:db8:0234:ca3e::1/128
C. 2002:db84:3f37:ca98:be05:8/64
D. FE80::1/10

Answer: A

NEW QUESTION 297
- (Exam Topic 4)
Refer to the exhibit.

A network engineer must configure R1 so that it sends all packets destined to the 10.0.0.0/24 network to R3, and all packets destined to PCI to R2. Which configuration must the engineer implement?

A)
```
R1(config)#ip route 10.0.0.0 255.255.255.0 172.16.0.2
R1(config)#ip route 10.0.0.5 255.255.255.255 192.168.0.2
```

B)
```
R1(config)#ip route 10.0.0.0 255.255.0.0 172.16.0.2
R1(config)#ip route 10.0.0.5 255.255.255.255 192.168.0.2
```

C)
```
R1(config)#ip route 10.0.0.0 255.255.255.0 192.168.0.2
R1(config)#ip route 10.0.0.5 255.255.255.255 172.16.0.2
```

D)
```
R1(config)#ip route 10.0.0.0 255.255.0.0 192.168.0.2
R1(config)#ip route 10.0.0.0 255.255.255.0 172.16.0.2
```

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

Answer: C

NEW QUESTION 298
- (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 299
- (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 301
- (Exam Topic 4)
Why would a network administrator choose to implement automation in a network environment?

A. To simplify the process of maintaining a consistent configuration state across all devices
B. To centralize device information storage
C. To implement centralized user account management
D. To deploy the management plane separately from the rest of the network

Answer: A

NEW QUESTION 304
- (Exam Topic 4)
What is a specification for SSIDS?

A. They are a Cisco proprietary security feature.
B. They must include one number and one letter.
C. They define the VLAN on a switch.
D. They are case sensitive.

Answer: B

NEW QUESTION 307
- (Exam Topic 4)
Refer to the exhibit.

All interfaces are in the same VLAN. All switches are configured with the default STP priorities. During the STP electronics, which switch becomes the root bridge?

A. MDF-DC-4:08:E0:19: 08:B3:19
B. MDF-DC-3:08:0E:18::1A:3C:9D
C. MDF-DC-08:0E:18:22:05:97
D. MDF-DC-1:DB:E:44:02:54:79

Answer: C

NEW QUESTION 312
- (Exam Topic 4)
What are two protocols within the IPsec suite? (Choose two)

A. AH
B. 3DES
C. ESP
D. TLS
E. AES

Answer: DE

NEW QUESTION 313
- (Exam Topic 4)

Refer to the exhibit.


```
{
    "Routers":["R1","R2","R3"],
    "Switches":["SW1","SW2","SW3"]
}
```

What is represented by "R1" and "SW1" within the JSON output?

A. key
B. array
C. value
D. object

Answer: C

NEW QUESTION 314
- (Exam Topic 4)
Drag and drop the characteristic from the left onto the IPv6 address type on the right.

A. Mastered
B. Not Mastered

Answer: A

Explanation:

NEW QUESTION 319
- (Exam Topic 4)

```
Cat9300-1# show interface g1/0/1 switchport
Name: Gi1/0/1
Switchport: Enabled
Administrative Mode: trunk
Operational Mode: trunk
Administrative Trunking Encapsulation: dotlq
Operational Trunking Encapsulation: dotlq
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 vlan 321
switchport trunk allowed vlan 100,200,300
```

B)
```
switchport trunk encapsulation dot1q
switchport trunk native vlan 321
switchport trunk allowed vlan 100-300
```

C)
```
switchport mode dynamic desirable
switchport trunk native vlan 321
switchport trunk allowed vlan 100,200,300
```

D)
```
switchport nonegotiate
switchport access vlan 321
switchport trunk allowed vlan except 2-1001
```

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

Answer: A

NEW QUESTION 324
- (Exam Topic 4)
Drag and drop the descriptions of IP protocol transmissions from the left onto the IP traffic types on the right.

A. Mastered
B. Not Mastered

Answer: A

Explanation:

NEW QUESTION 326
- (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 328
- (Exam Topic 4)
A switch is a forwarding a frame out of an interfaces except the interface that received the frame. What is the technical term for this process?

A. ARP
B. CDP
C. flooding
D. multicast

Answer: C

NEW QUESTION 333
- (Exam Topic 4)
Two switches have been implemented and all interfaces are at the default configuration level. A trunk link must be implemented between two switches with these requirements:
• using an industry-standard trunking protocol
• permitting VLANs 1 -10 and denying other VLANs How must the interconnecting ports be configured?
A)

```
switchport mode dynamic
channel-protocol lacp
switchport trunk allowed vlans 1-10
```

B)

```
switchport mode trunk
switchport trunk encapsulation dot1q
switchport trunk allowed vlans 1-10
```

C)

```
switchport mode trunk
switchport trunk allowed vlans 1-10
switchport trunk native vlan 11
```

D)

```
switchport mode dynamic desirable
channel-group 1 mode desirable
switchport trunk encapsulation isl
switchport trunk allowed vlan except 11-4094
```

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

Answer: D

NEW QUESTION 338
- (Exam Topic 4)
An engineer must configure neighbor discovery between the company router and an ISP

```
interface gigabitethernet0/0
description Circuit-ATT4203-21099
duplex full
speed 1000
media-type gbic
negotiation auto
lldp transmit
lldp receive
```

What is the next step to complete the configuration if the ISP uses a third-party router?
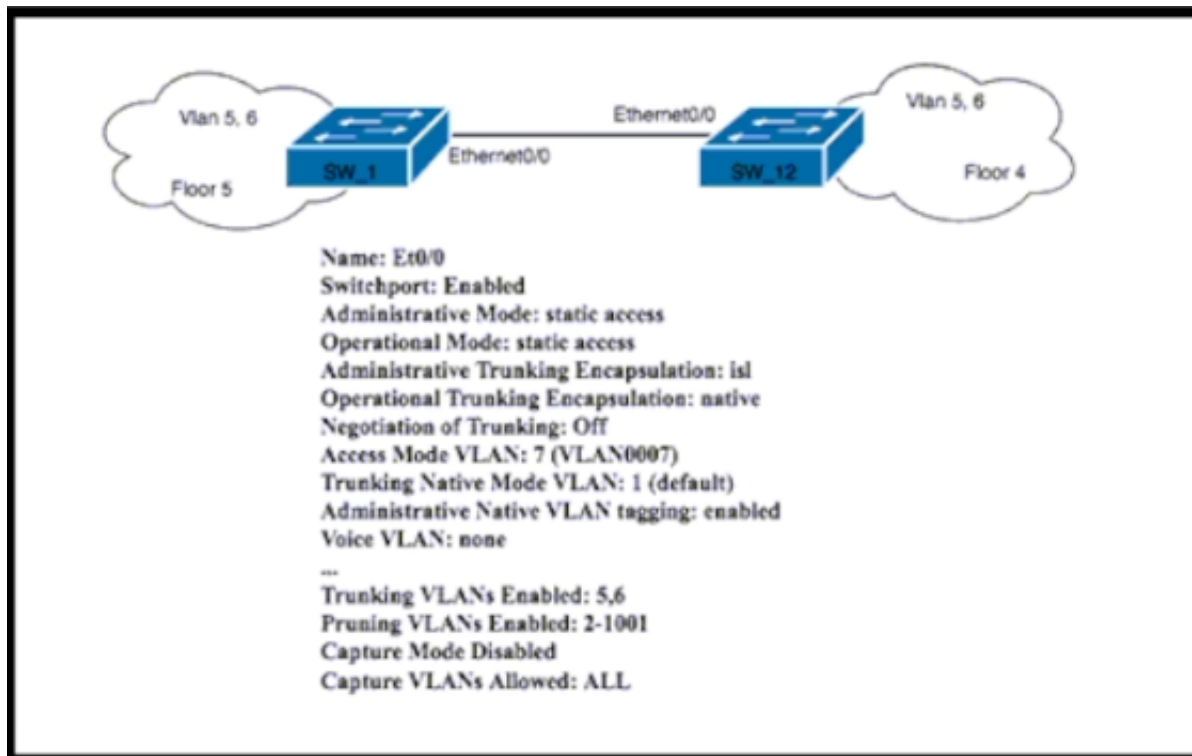
A. Enable LLDP globally.
B. Disable CDP on gi0/0.
C. Enable LLDP TLVs on the ISP router.
D. Disable auto-negotiation.

Answer: A

NEW QUESTION 342
- (Exam Topic 4)
Refer to the exhibit.


```
Name: Et0/0
Switchport: Enabled
Administrative Mode: static access
Operational Mode: static access
Administrative Trunking Encapsulation: isl
Operational Trunking Encapsulation: native
Negotiation of Trunking: Off
Access Mode VLAN: 7 (VLAN0007)
Trunking Native Mode VLAN: 1 (default)
Administrative Native VLAN tagging: enabled
Voice VLAN: none
...
Trunking VLANs Enabled: 5,6
Pruning VLANs Enabled: 2-1001
Capture Mode Disabled
Capture VLANs Allowed: ALL
```

SW_1 and SW_12 represent two companies that are merging. They use separate network vendors. The VLANs on both Sides have been migrated to share IP subnets. Which command sequence must be issued on both sides to join the two companies and pass all VLANs between the companies?

A. switchport mode trunkswitchport trunk encapsulation dot1q
B. switchport mode trunk switchport trunk allowed vlan all switchport dot1q ethertype 0800
C. switchport mode dynamic desirable switchport trunk allowed vlan all switchport trunk native vlan 7
D. switchport dynamic auto switchport nonegotiate

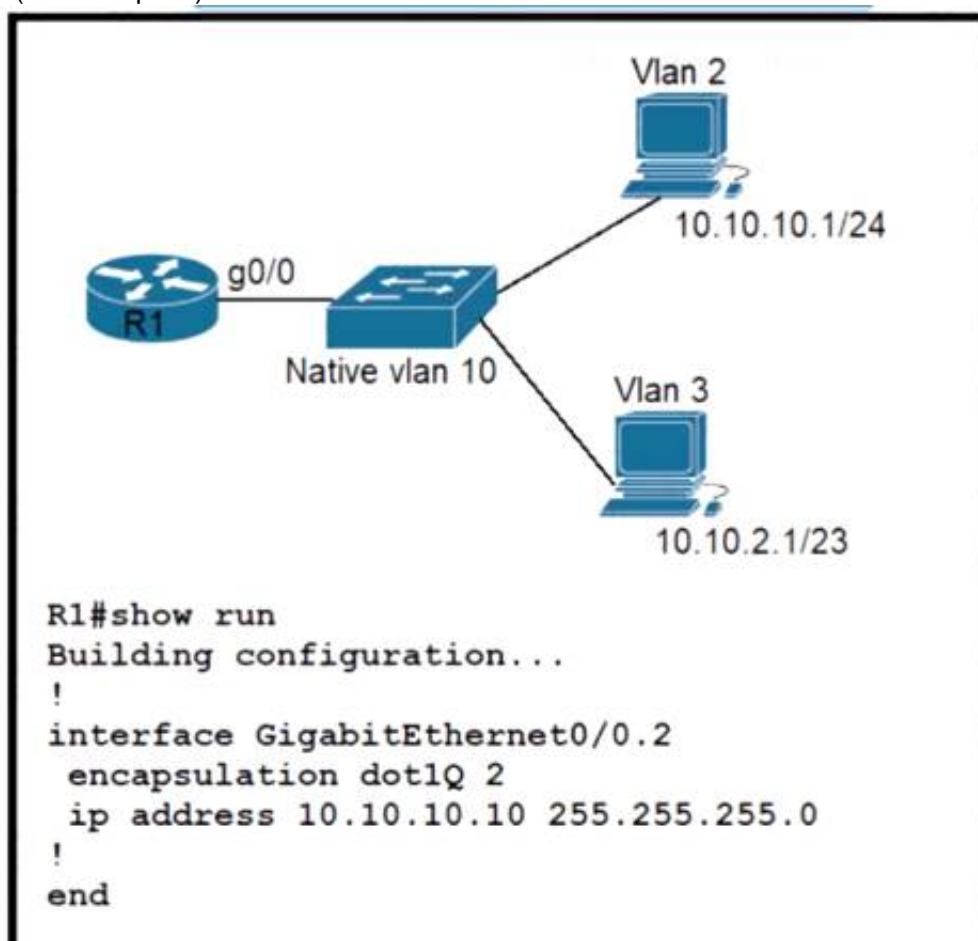**Answer:** A

NEW QUESTION 344
- (Exam Topic 4)
Refer to the exhibit. User traffic originating within site 0 is failing to reach an application hosted on IP address 192.168 0 10. Which is located within site A What is determined by the routing table?

A. The default gateway for site B is configured incorrectly
B. The lack of a default route prevents delivery of the traffic
C. The traffic is blocked by an implicit deny in an ACL on router2
D. The traffic to 192 168 010 requires a static route to be configured in router 1.

Answer: B

NEW QUESTION 346
- (Exam Topic 4)


```
R1#show run
Building configuration...
!
interface GigabitEthernet0/0.2
 encapsulation dot1Q 2
 ip address 10.10.10.10 255.255.255.0
!
end
```

A)

```
interface GigabitEthernet0/0
  ip address 10.10.2.10 255.255.252.0
```

B)

```
interface GigabitEthernet0/0.3
  encapsulation dot1Q 10
  ip address 10.10.2.10 255.255.255.252
```

C)

```
interface GigabitEthernet0/0.10
  encapsulation dot1Q 3
  ip address 10.10.2.10 255.255.254.0
```

D)

```
interface GigabitEthernet0/0.3
  encapsulation dot1Q 3 native
  ip address 10.10.2.10 255.255.252.0
```

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

Answer: C

NEW QUESTION 347
- (Exam Topic 4)
Which WPA mode uses PSK authentication?

A. Local
B. Client
C. Enterprise
D. Personal

Answer: C

NEW QUESTION 350
- (Exam Topic 4)
When should an engineer implement a collapsed-core architecture?

A. for small networks with minimal need for growth
B. the access and distribution layers must be on the same device
C. for large networks that are connected to multiple remote sites
D. only when using VSS technology

Answer: C

NEW QUESTION 353
- (Exam Topic 4)
Refer to the exhibit.

```
R1# show ip route
Codes: L - local, 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, E - EGP
       i - IS-IS, 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, 5 subnets
D      10.1.2.0/24 [90/2170112] via 10.165.20.226, 00:01:30, Serial0/0
D      10.1.3.0/24 [90/2170112] via 10.165.20.226, 00:01:30, Serial0/0
D      10.1.2.0/25 [90/2170112] via 10.165.20.126, 00:01:30, Serial0/0
D      10.1.3.0/25 [90/2170112] via 10.165.20.146, 00:01:30, Serial0/0
D      10.1.4.0/25 [90/2170112] via 10.165.20.156, 00:01:30, Serial0/0
       192.168.1.0/24 is variably subnetted, 2 subnets, 2 masks
C      192.18.10.0/24 is directly connected, GigabitEthernet0/0
       192.168.21.0/24 is variably subnetted, 2 subnets, 2 masks
C      192.168.11.0/24 is directly connected, GigabitEthernet0/1
       10.165.20.0/24 is variably subnetted, 2 subnets, 2 masks
C      10.165.20.224/24 is directly connected, Serial0/0
S      10.1.2.112/28 [1/0] via 10.165.20.166
```

What is the next hop for traffic entering R1 with a destination of 10.1.2 126?

A. 10.165 20.126
B. 10.165.20.146
C. 10.165.20.166
D. 10.165 20.226
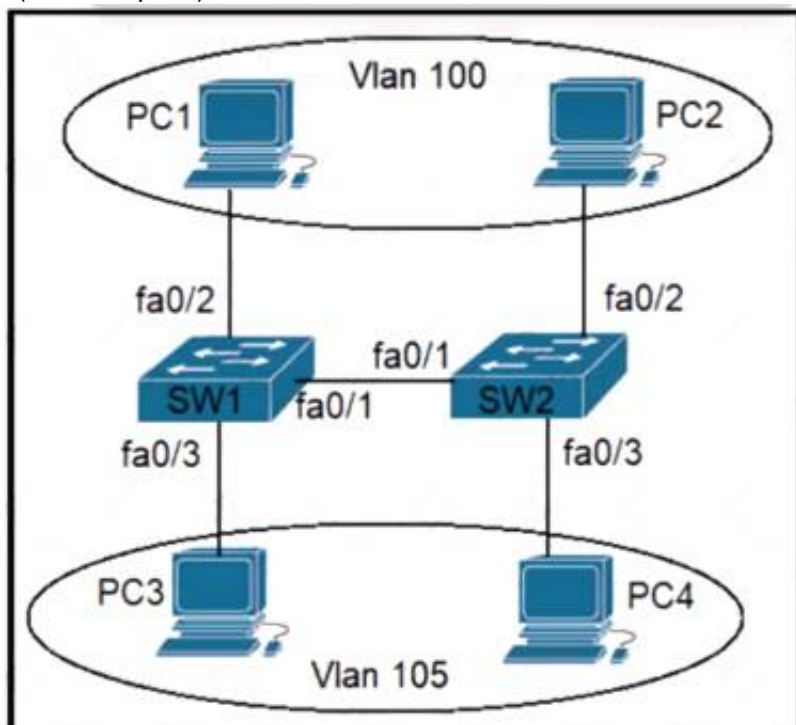
Answer: D

NEW QUESTION 355
- (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 357
- (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 362
- (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 10008ASE-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.
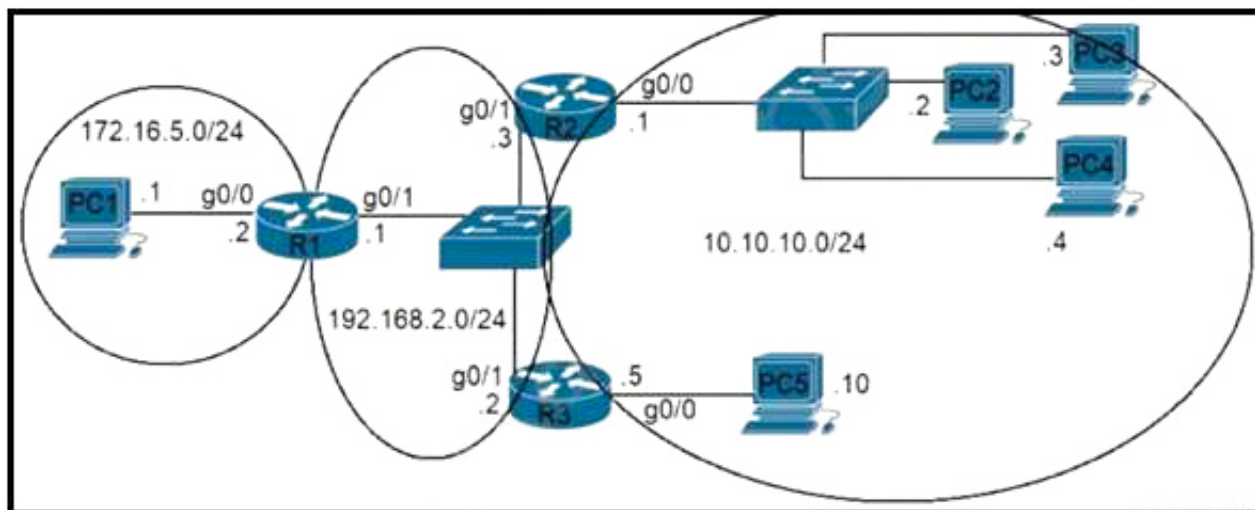
Answer: C

NEW QUESTION 365
- (Exam Topic 4)
Which two VPN technologies are recommended by Cisco for multiple branch offices and large-scale deployments? (Choose two.)

A. site-to-site VPN
B. IDMVPN
C. IGETVPN
D. IPsec remote access
E. clientless VPN

Answer: BE

NEW QUESTION 370
- (Exam Topic 4)

Refer to the exhibit. The router R1 is in the process of being configured. Routers R2 and R3 are configured correctly for the new environment. Which two commands must be configured on R1 for PC1 to communicate to all PCs on the 10.10.10.0/24 network? (Choose two.)

A. ip route 10.10.10.0 255.255.255.0 192.168.2.3
B. ip route 10.10.10.10 255.255.255.255 192.168.2.2
C. ip route 10.10.10.10 255.255.255.255 g0/1
D. ip route 10.10.10.8 255.255.255.248 g0/1
E. ip route 10.10.10.0 255.255.255.248 192.168.2.2

Answer: AE

NEW QUESTION 373
- (Exam Topic 4)
What is an advantage of using auto mode versus static mode for power allocation when an access point is connected to a PoE switch port?

A. All four pairs of the cable are used
B. It detects the device is a powered device
C. The default level is used for the access point
D. Power policing is enabled at the same time

Answer: D

NEW QUESTION 374
- (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 376
- (Exam Topic 4)
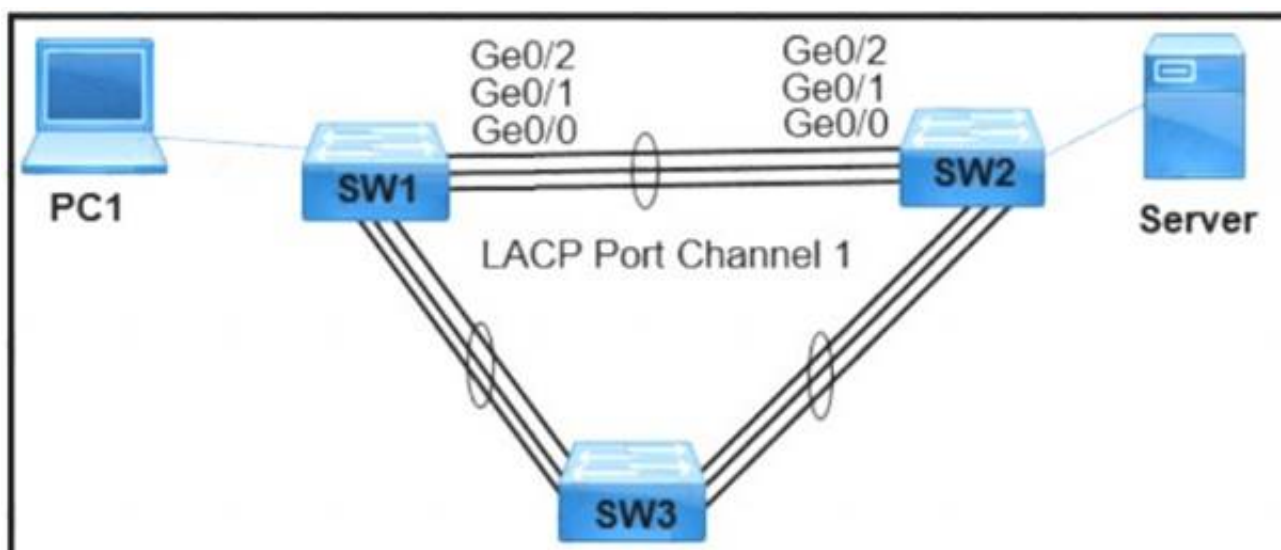What is the role of nonoverlapping channels in a wireless environment?

A. to reduce interference
B. to allow for channel bonding
C. to stabilize the RF environment
D. to increase bandwidth

Answer: A

NEW QUESTION 378
- (Exam Topic 4)
Refer to the exhibit.

PC1 regularly sends 1800 Mbps of traffic to the server. A network engineer needs to configure the EtherChannel to disable Port Channel 1 between SW1 and SW2 when the Ge0/0 and Ge0/1 ports on SW2 go down. Which configuration must the engineer apply to the switch?

A)

```
SW2# configure terminal
SW2(config)# interface port-channel 1
SW2(config-if)# lacp port-priority 32000
```

B)

```
SW2# configure terminal
SW2(config)# interface port-channel 1
SW2(config-if)# lacp max-bundle 2
```

C)

```
SW2# configure terminal
SW2(config)# lacp system-priority 32000
```

D)

```
SW2# configure terminal
SW2(config)# interface port-channel 1
SW2(config-if)# port-channel min-links 2
```

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

Answer: D

NEW QUESTION 380
- (Exam Topic 4)
Refer to the exhibit.

What are the two steps an engineer must take to provide the highest encryption and authentication using domain credentials from LDAP?
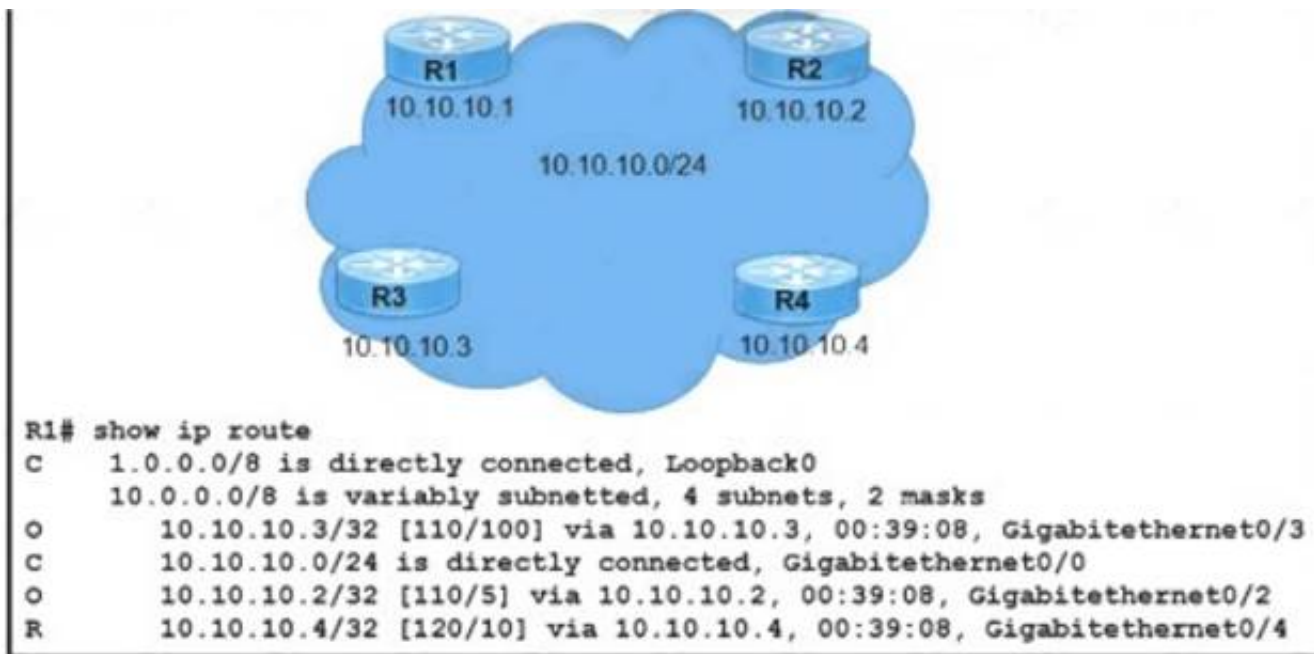
A. Select PSK under Authentication Key Management
B. Select WPA+WPA2 on Layer 2 Security
C. Select Static-WEP + 802.1X on Layer 2 Security
D. Select WPA Policy with TKIP Encryption
E. Select 802.1X from under Authentication Key Management

Answer: BE

NEW QUESTION 384
- (Exam Topic 4)
Refer to the exhibit.

```
R1# show ip route
C     1.0.0.0/8 is directly connected, Loopback0
      10.0.0.0/8 is variably subnetted, 4 subnets, 2 masks
O        10.10.10.3/32 [110/100] via 10.10.10.3, 00:39:08, Gigabitethernet0/3
C        10.10.10.0/24 is directly connected, Gigabitethernet0/0
O        10.10.10.2/32 [110/5] via 10.10.10.2, 00:39:08, Gigabitethernet0/2
R        10.10.10.4/32 [120/10] via 10.10.10.4, 00:39:08, Gigabitethernet0/4
```

Which next-hop IP address has the least desirable metric when sourced from R1?

A. 10.10.10.5
B. 10.10.10.3
C. 10.10.10.4
D. 10.10.10.2

Answer: C

NEW QUESTION 386
- (Exam Topic 4)
Why implement VRRP?

A. to provide end users with a virtual gateway in a multivendor network
B. to leverage a weighting scheme to provide uninterrupted service
C. to detect link failures without the overhead of Bidirectional Forwarding Detection
D. to hand over to end users the autodiscovery of virtual gateways

Answer: A

NEW QUESTION 388
- (Exam Topic 4)
Refer to the exhibit.


```
R1# show ip route
....
D         172.16.32.0/27 [90/2888597172]  via 20.1.1.1
O         172.16.32.0/19  [110/292094]    via 20.1.1.10
R         172.16.32.0/24  [120/2]   via 20.1.1.3
```

An engineer executed the script and added commands that were not necessary for SSH and now must remove the commands.

A. metric
B. cost
C. longest prefix
D. administrative distance

Answer: D

NEW QUESTION 390
- (Exam Topic 4)
Drag and drop the DNS commands from the left onto their effects on the right.

Drag and drop the DNS commands from the left onto their effects on the right.

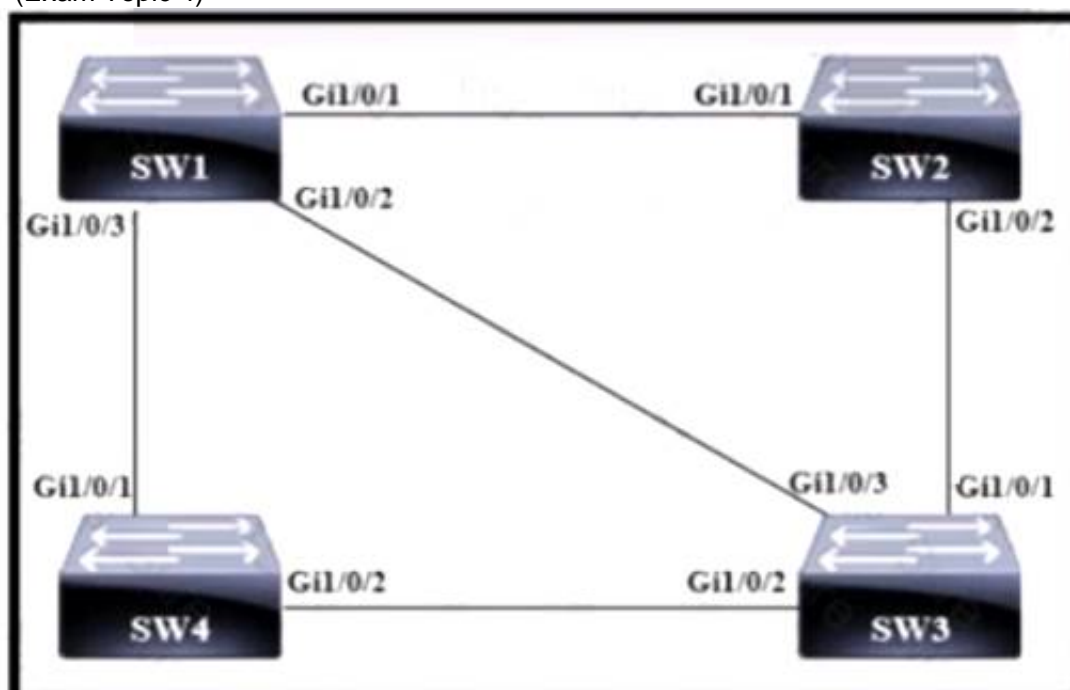|	
ip domain-lookup	adds an entry to the host table
ip domain-name	completes the FQDN of the DNS server
ip host switch_1 192.168.0.1	displays address-mapping information
ip name-server	enables host-to-IP-address translation
show hosts	specifies the IP address of the DNS server

A. Mastered
B. Not Mastered

Answer: A

Explanation:

Drag and drop the DNS commands from the left onto their effects on the right.

ip domain-lookup	ip domain-name
ip domain-name	ip domain-lookup
ip host switch_1 192.168.0.1	show hosts
ip name-server	ip host switch_1 192.168.0.1
show hosts	ip name-server

NEW QUESTION 392
- (Exam Topic 4)

A)

SW 4
Bridge Priority - 40960
mac-address 07:24:86:84:82:18

B)

SW 3
Bridge Priority - 40960
mac-address 08:71:50:67:61:38

C)

SW 2
Bridge Priority - 32768
mac-address 08:fd:b1:d7:78:39

D)

SW 1
Bridge Priority - 32768
mac-address 05:48:19:51:3e:49

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

Answer: D

NEW QUESTION 394
- (Exam Topic 4)
Refer to the exhibit.

```
Codes: L - local, 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, H - NHRP, l - LISP
       a - application route
       + - replicated route, % - next hop override, p - overrides from PfR
Gateway of last resort is 0.0.0.0 to network 0.0.0.0
S*     0.0.0.0/0 is directly connected, Null0
       10.0.0.0/8 is variably subnetted, 6 subnets, 2 masks
C         10.0.12.0/24 is directly connected, GigabitEthernet0/1
L         10.0.12.1/32 is directly connected, GigabitEthernet0/1
C         10.0.13.0/24 is directly connected, GigabitEthernet0/2
L         10.0.13.1/32 is directly connected, GigabitEthernet0/2
C         10.0.14.0/24 is directly connected, GigabitEthernet0/3
L         10.0.14.1/32 is directly connected, GigabitEthernet0/3
D      192.168.0.0/16 [90/130816] via 10.0.13.3, 00:10:09, GigabitEthernet0/2
O      192.168.0.0/23 [110/2] via 10.0.14.4, 00:00:46, GigabitEthernet0/3
S      192.168.0.0/24 [100/0] via 10.0.12.2
```

Which interface is chosen to forward traffic to the host at 192.168.0.55?

A. GigabitEthernet0
B. GigabitEthernet0/1
C. Null0
D. GigabitEthernet0/3

Answer: B

NEW QUESTION 395
- (Exam Topic 4)
What is a zero-day exploit?

A. It is when a new network vulnerability is discovered before a fix is available
B. It is when the perpetrator inserts itself in a conversation between two parties and captures or alters data.
C. It is when the network is saturated with malicious traffic that overloads resources and bandwidth
D. It is when an attacker inserts malicious code into a SOL server.

Answer: A

Explanation:
https://www.kaspersky.com/resource-center/definitions/zero-day-exploit

NEW QUESTION 399
- (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 402
- (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 404
- (Exam Topic 4)
Drag and drop the Ansible terms from the left onto the right.

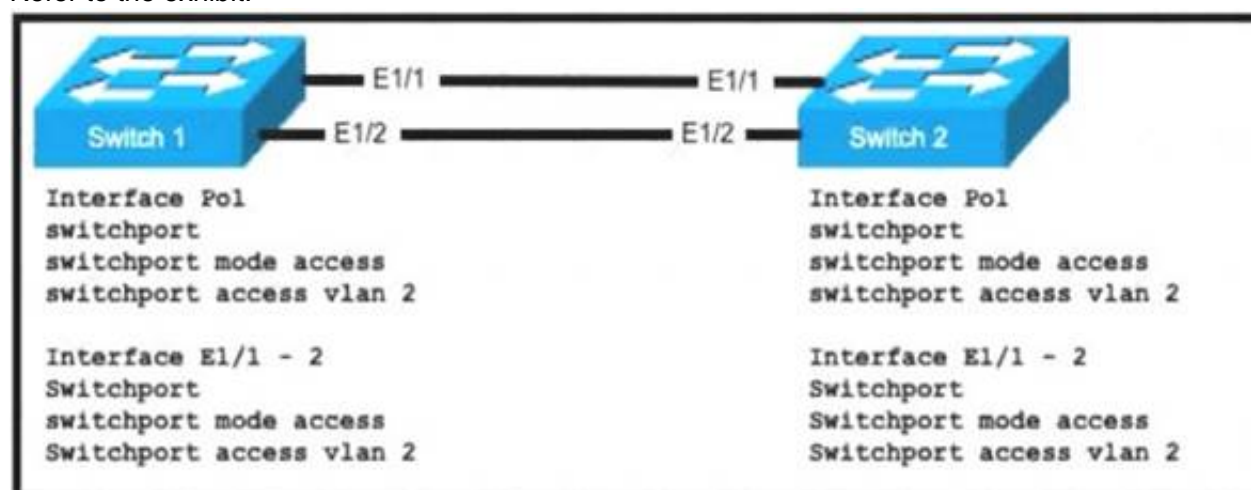|	
control node	collection of actions to perform on target devices, expressed in YAML format
inventory	device with Ansible installed that manages target devices
managed node	network device, without Ansible installed, upon which commands can be executed
module	specific action to be performed on one or 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 407
- (Exam Topic 3)
Refer to the exhibit.


```
Interface Pol                          Interface Pol
switchport                             switchport
switchport mode access                 switchport mode access
switchport access vlan 2               switchport access vlan 2

Interface E1/1 - 2                     Interface E1/1 - 2
Switchport                             Switchport
switchport mode access                 Switchport mode access
Switchport access vlan 2               Switchport access vlan 2
```

An engineer is configuring an EtherChannel using LACP between Switches 1 and 2 Which configuration must be applied so that only Switch 1 sends LACP initiation packets?

A. Switch 1 (config-if)#channel-group 1 mode on Swrtch2(config-if)#channel-group 1 mode passive
B. Switch1(config-if)#channel-group 1 mode passive Switch2(config-if)#channel-group 1 mode active
C. Switch1{config-if)£channel-group 1 mode active Switch2(config-if)#channel-group 1 mode passive
D. Switch1(config-if)#channel-group 1 mode on Switch2(config-if)#channel-group 1 mode active

Answer: C

NEW QUESTION 411
- (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 414
- (Exam Topic 3)
Drag and drop the threat-mitigation techniques from the left onto the types of threat or attack they mitigate on the right.

configure the BPDU guard feature		802.1q double tagging
configure the dynamic ARP inspection feature		ARP spoofing
configure the root guard feature		unwanted superior BPDUs
configure a VLAN access control list		unwanted BPDUs on PortFast-enabled interfaces

A. Mastered
B. Not Mastered

Answer: A

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

NEW QUESTION 418
- (Exam Topic 3)
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  192.168.3.5 is directly connected, Loopback0
        10.0.0.0/8 is variably subnetted, 4 subnets, 2 masks
O       10.0.1.3/32 [110/100] via 192.168.0.40, 00:39:08, Serial0
C       10.0.1.0/24 is directly connected, Serial0
O       10.0.1.190/32 [110/5] via 192.168.0.35, 00:39:08, Serial0
O       10.0.1.0/24 [110/10] via 192.168.0.4, 00:39:08, Gigabit Ethernet 0/0
D       10.0.1.0/28 [90/10]  via 192.168.0.7, 00:39:08, Gigabit Ethernet 0/0
```

Traffic sourced from the loopback0 Interface is trying to connect via ssh to the host at 10.0.1.15. What Is the next hop to the destination address?

A. 192.168.0.7
B. 192.168.0.4
C. 192.168.0.40
D. 192.168.3.5

Answer: B

NEW QUESTION 419
- (Exam Topic 3)
What is a function of a Next-Generation IPS?

A. makes forwarding decisions based on learned MAC addresses
B. serves as a controller within a controller-based network
C. integrates with a RADIUS server to enforce Layer 2 device authentication rules
D. correlates user activity with network events

Answer: D

NEW QUESTION 424
- (Exam Topic 3)
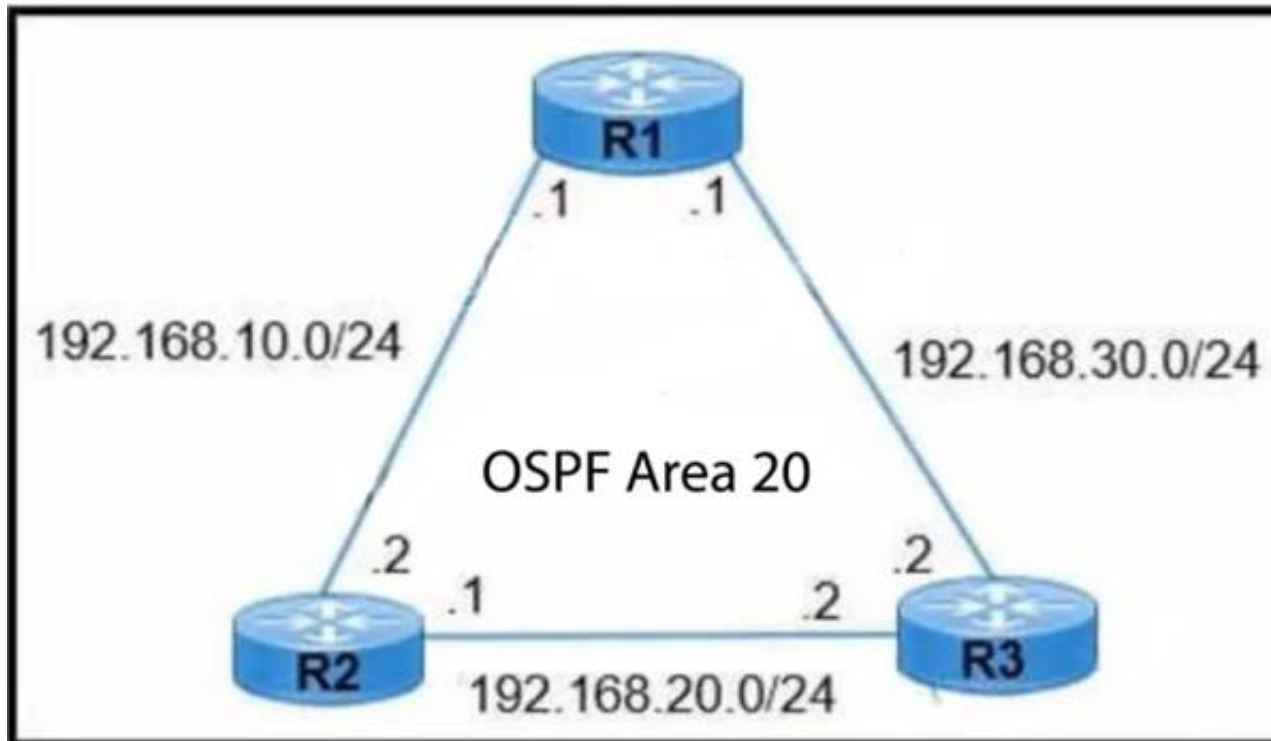Which field within the access-request packet is encrypted by RADIUS?

A. authorized services
B. authenticator
C. username
D. password

Answer: D

NEW QUESTION 429
- (Exam Topic 3)
Refer to the exhibit.

R1 learns all routes via OSPF Which command configures a backup static route on R1 to reach the 192 168.20.0/24 network via R3?
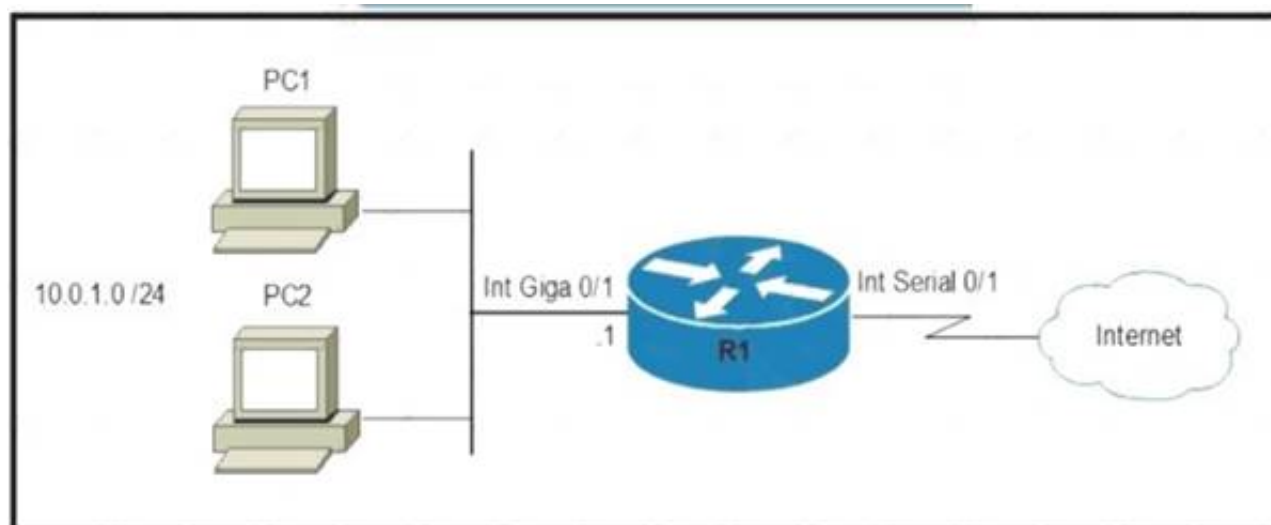
A. R1(config)#ip route 192.168.20.0 255.255.0.0 192.168.30.2
B. R1(config)#ip route 192.168.20.0 255.255.255.0 192.168.30.2 90
C. R1(config)#ip route 192.168.20.0 255.255.255.0 192.168.30.2 111
D. R1(config)#ip route 192.168.20.0 255.255.255.0 192.168.30.2

Answer: C

NEW QUESTION 430
- (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 433
- (Exam Topic 3)
Which two network actions occur within the data plane? (Choose two.)

A. Add or remove an 802.1Q trunking header.
B. Make a configuration change from an incoming NETCONF RPC.
C. Run routing protocols.
D. Match the destination MAC address to the MAC address table.
E. Reply to an incoming ICMP echo request.

Answer: BD

NEW QUESTION 434
- (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 1681 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 439
- (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 GigabitEthernetl/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 443
- (Exam Topic 3)
Drag and drop the statements about networking from the left onto the corresponding networking types on the right.

Statements		Networking Types
This type allows better control over how networks work and how networks are configured.		**Traditional Networking**
This type enables networks to integrate with applications through APIs.		
New devices are configured using the physical infrastructure.		
This type provisions resources from a centralized location.		**Controller-Based Networking**
This type requires a distributed control plane.		

A. Mastered
B. Not Mastered

Answer: A

Explanation:
A picture containing table Description automatically generated

NEW QUESTION 448
- (Exam Topic 3)
Which protocol is used for secure remote CLI access?

A. HTTPS
B. HTTP
C. Telnet
D. SSH

Answer: D

NEW QUESTION 452
- (Exam Topic 3)
Drag and drop the Rapid PVST+ forwarding slate actions from the loft to the right. Not all actions are used.

A. Mastered
B. Not Mastered

Answer: A

Explanation:

NEW QUESTION 456
- (Exam Topic 3)
Refer to the exhibit.

Host A sent a data frame destined for host D

```
SwitchA#show mac-address table
        Mac Address Table
---------------------------------------------------------
Vlan   Mac Address       Type      Ports
----   ----------------  -------   ------
2      000c.859c.bb7b    DYNAMIC   Fa0/1
2      0010.11dc.3e91    DYNAMIC   Fa0/2
2      0041.45d7.c451    DYNAMIC   Fa0/3
SwitchA#
```

What does the switch do when it receives the frame from host A?

A. It drops the frame from the switch CAM table.
B. It floods the frame out of all ports except port Fa0/1.
C. It shuts down the port Fa0/1 and places it in err-disable mode.
D. It experiences a broadcast storm.

Answer: B

NEW QUESTION 461
- (Exam Topic 3)
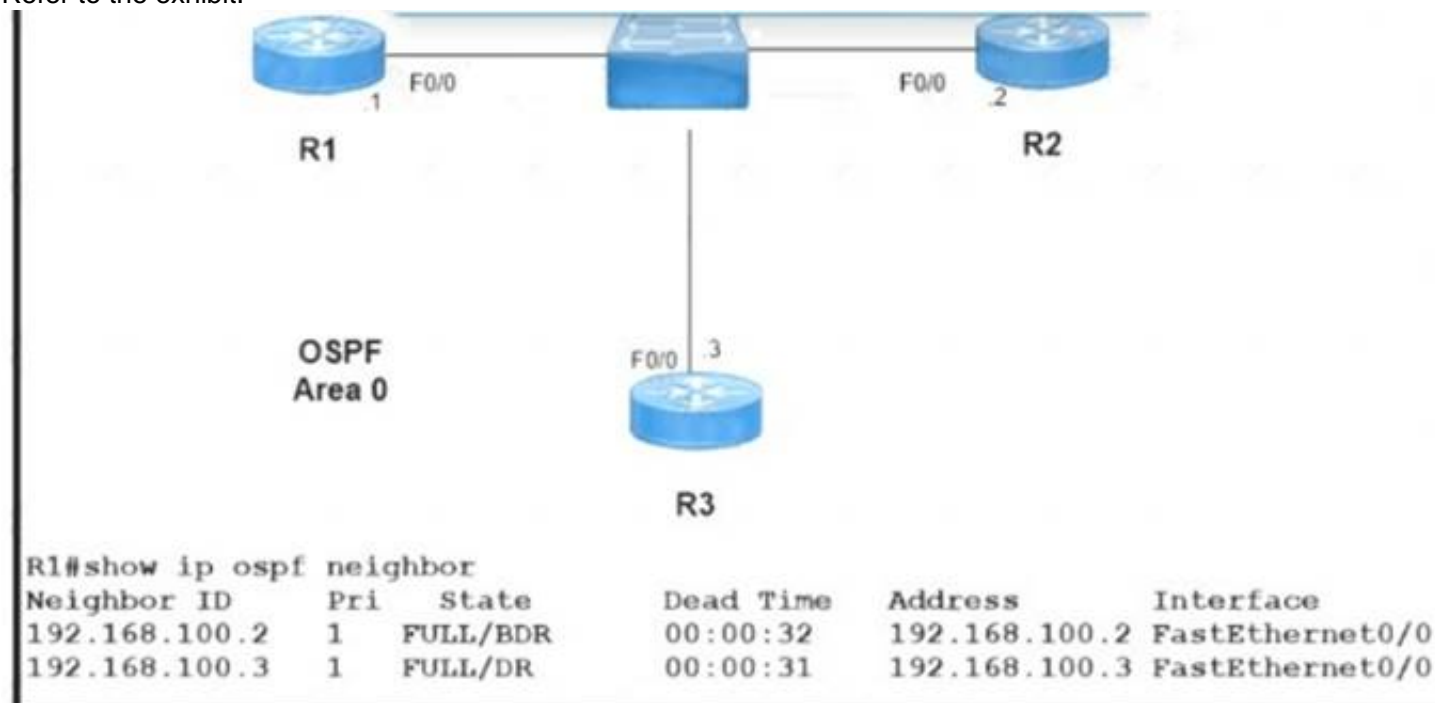Which WLC management connection type is vulnerable to man-in-the-middle attacks?

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

Answer: C

NEW QUESTION 464
- (Exam Topic 3)
Refer to the exhibit.


```
R1#show ip ospf neighbor
Neighbor ID      Pri   State       Dead Time    Address             Interface
192.168.100.2    1     FULL/BDR    00:00:32     192.168.100.2 FastEthernet0/0
192.168.100.3    1     FULL/DR     00:00:31     192.168.100.3 FastEthernet0/0
```

Which two configurations must the engineer apply on this network so that R1 becomes the DR? (Choose two.)
A)
```
R1(config)#router ospf 1
R1(config-router)#router-id 192.168.100.1
```

B)
```
R1(config)#interface fastethernet 0/0
R1(config-if)#ip ospf priority 200
```

C)
```
R3(config)#interface fastethernet 0/0
R3(config-if)#ip ospf priority 0
```

D)

```
R1(config)#interface fastethernet 0/0
R1(config-if)#ip ospf priority 0
```

E)

```
R3(config)#interface fastethernet 0/0
R3(config-if)#ip ospf priority 200
```

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

Answer: BC

NEW QUESTION 468
- (Exam Topic 3)
What is a function of an endpoint on a network?

A. forwards traffic between VLANs on a network
B. connects server and client devices to a network
C. allows users to record data and transmit to a tile server
D. provides wireless services to users in a building

Answer: C

Explanation:
An endpoint is a host that acts as the source or destination of data traffic flowing through a network. When you are at your PC, editing your CV and uploading it to a file server, you are sitting at an endpoint.

NEW QUESTION 469
- (Exam Topic 3)
Refer to the exhibit.

```
service timestamps debug datetime msec
service timestamps log datetime msec
service password-encryption
!
hostname R4
!
boot-start-marker
boot-end-marker
!
ip cef
!
interface FastEthernet0/0
description WAN_INTERFACE
ip address 10.0.1.2 255.255.255.252
ip access-group 100 in
!
interface FastEthernet0/1
description LAN_INTERFACE
ip address 10.148.2.1 255.255.255.0
duplex auto
speed auto
!
ip forward-protocol nd
!
access-list 100 permit eigrp any any
access-list 100 permit icmp any any
access-list 100 permit tcp 10.149.3.0 0.0.0.255 host 10.0.1.2 eq 22
access-list 100 permit tcp any any eq 80
access-list 100 permit tcp any any eq 443
access-list 100 deny ip any any log
```

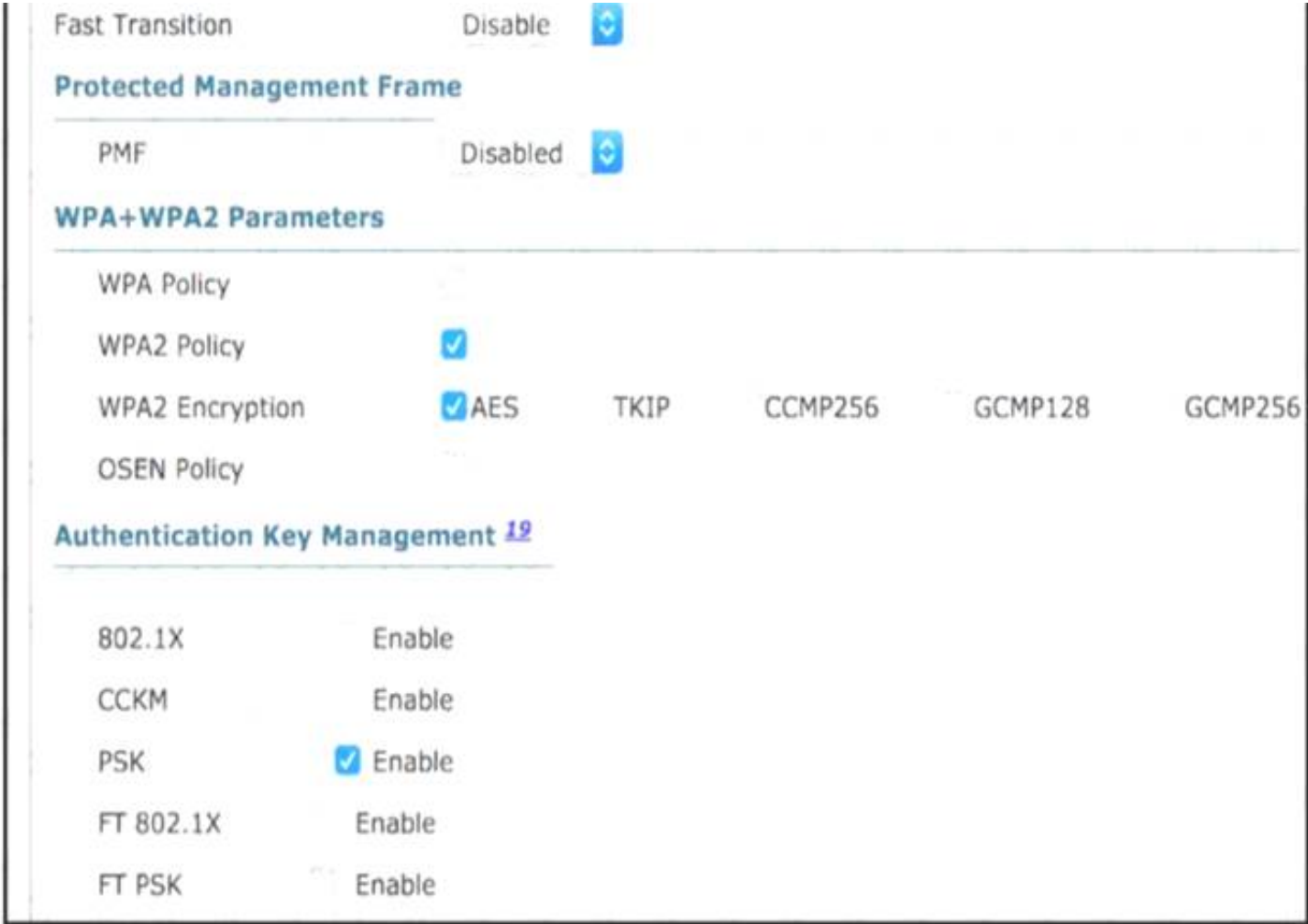Which configuration enables DHCP addressing for hosts connected to interface FastEthernetO/1 on router R4?

A. interface FastEthernet0/0 ip helper-address 10.0.1.1 iaccess-list 100 permit udp host 10.0.1.1 eq bootps host 10.148.2.1
B. interface FastEthernot0/1 ip helper-address 10.0.1.1!access-list 100 permit tcp host 10.0.1.1 eq 67 host 10.148.2.1
C. interface FastEthernetO/0 ip helper-address 10.0.1.1 laccess-list 100 permit host 10.0.1.1 host 10.148.2.1 eq bootps
D. interface FastEthernet0/1 ip helper-address 10.0.1.1!access-list 100 permit udp host 10.0.1.1 eq bootps host 10.148.2.1

Answer: B

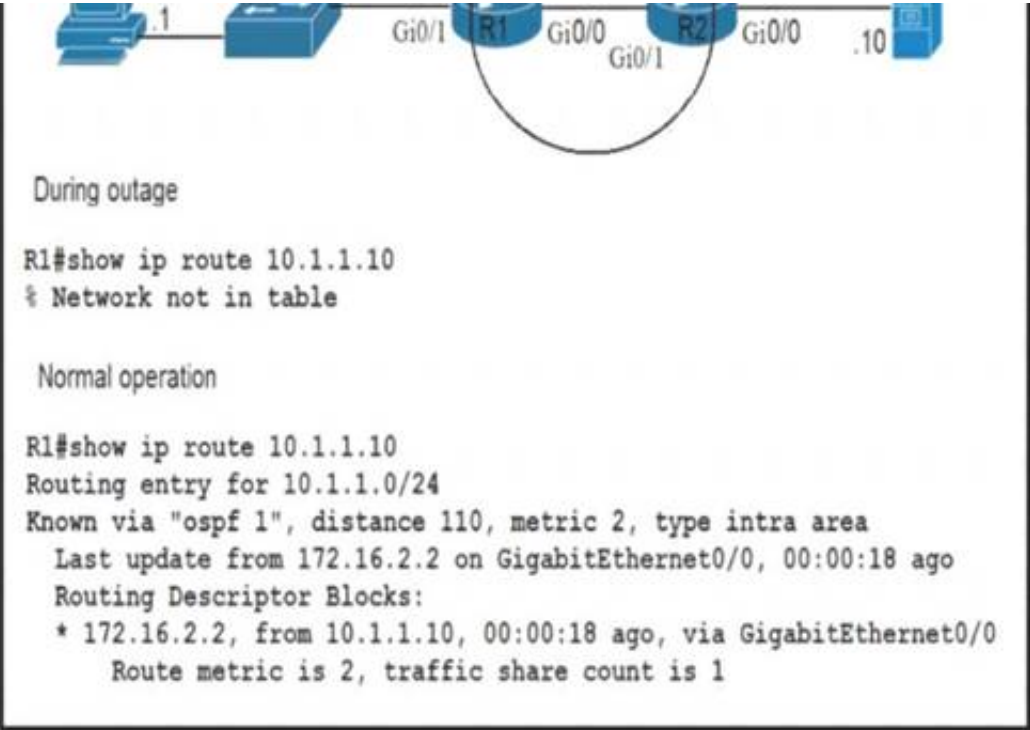## NEW QUESTION 472
- (Exam Topic 3)
Refer to the exhibit.

Users need to connect to the wireless network with IEEE 802. 11r-compatible devices. The connection must be maintained as users travel between floors or to other areas in the building What must be the configuration of the connection?

A. Select the WPA Policy option with the CCKM option.
B. Disable AES encryption.
C. Enable Fast Transition and select the FT 802.1x option.
D. Enable Fast Transition and select the FT PSK option.

Answer: C

NEW QUESTION 474
- (Exam Topic 3)
Refer to the exhibit.

Which route must be configured on R1 so that OSPF routing is used when OSPF is up. but the server is still reachable when OSPF goes down?

A. ip route 10.1.1.10 255.255.255.255 172.16.2.2 100
B. ip route 10.1.1.0 255.255.255.0 gi0/1 125
C. ip route 10.1.1.0 255.255.255.0 172.16.2.2 100
D. ip route 10.1.1.10 255.255.255.255 gi0/0 125

Answer: D

NEW QUESTION 475
- (Exam Topic 3)
Refer to the exhibit.

```
R1# show ip route | begin gateway
Gateway of last resort is 209.165.200.254 to network 0.0.0.0
S*  0.0.0.0/0 [1/0] via 209.165.200.254, Serial0/0/1
                is directly connected, Serial0/0/1
     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
R    172.16.2.0/24 [120/2] via 207.165.200.250, 00:00:25, Serial0/0/0
O    192.168.1.0/24 [110/4437] via 207.165.200.254, 00:00:17, Serial0/0/1
D    192.168.2.0/24 [90/84437] via 207.165.200.254, 00:00:15, Serial0/0/1
     207.165.200.0/24 is variably subnetted, 5 subnets, 2 masks
S    207.165.200.244/30 [1/1] via 207.165.200.254, Serial0/0/1
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 network prefix was learned via EIGRP?

A. 172.16.0.0/16
B. 192.168.2.0/24
C. 207.165.200.0/24
D. 192.168.1.0/24

Answer: B

NEW QUESTION 478
- (Exam Topic 3)
A network administrator is setting up a new IPv6 network using the 64-bit address 2001 0EB8 00C1 2200:0001 0000 0000 0331/64 To simplify the configuration the administrator has decided to compress the address Which IP address must the administrator configure?

A. ipv6 address 21:EB8:C1:2200:1::331/64
B. ipv6 address 2001:EB8:C1:22:1::331/64
C. ipv6 address 2001 :EB8:C 1:2200.1 ::331-64
D. ipv6 address 2001:EB8:C1:2200:1:0000:331/64

Answer: C

NEW QUESTION 483
- (Exam Topic 3)
Which action implements physical access control as part of the security program of an organization?

A. configuring a password for the console port
B. backing up syslogs at a remote location
C. configuring enable passwords on network devices
D. setting up IP cameras to monitor key infrastructure

Answer: A

NEW QUESTION 486
- (Exam Topic 3)
Which Layer 2 switch function encapsulates packets for different VLANs so that the packets traverse the same port and maintain traffic separation between the VLANs?

A. VLAN numbering
B. VLAN DSCP
C. VLAN tagging
D. VLAN marking

Answer: C

NEW QUESTION 491
- (Exam Topic 3)
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    10.0.0.0/8 is directly connected, Loopback0
     10.0.0.0/8 is variably subnetted, 4 subnets, 2 masks
O    10.0.1.3/32 [110/100] via 10.0.1.100, 00:39:08, Serial0
C    10.0.1.0/24 is directly connected, Serial0
O    10.0.1.5/32 [110/5] via 10.0.1.50, 00:39:08, Serial0
O    10.0.10.0/24 [110/10] via 10.0.1.4, 00:39:08, Gigabit Ethernet 0/0
D    10.0.10.0/24 [90/10] via 10.0.1.5, 00:39:08, Gigabit Ethernet 0/1
```

Web traffic is coming in from the WAN interface. Which route takes precedence when the router is processing traffic destined for the LAN network at 10 0.10.0/24?
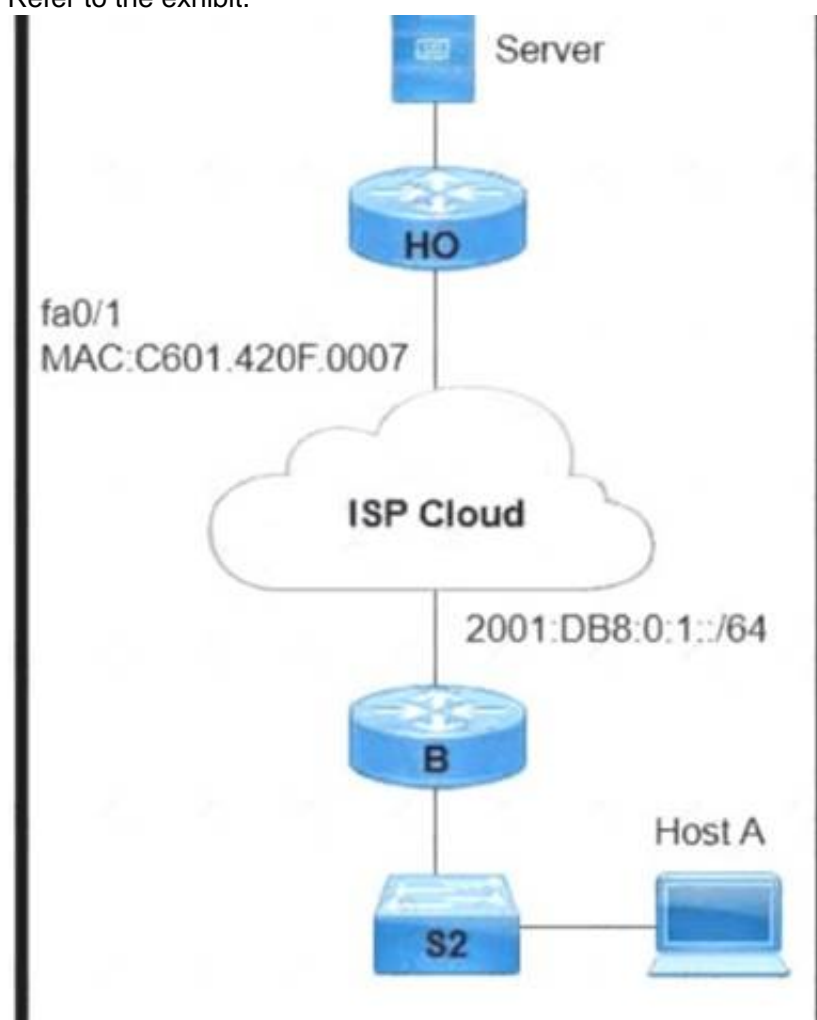
A. via next-hop 10.0.1.5
B. via next-hop 10 0 1.4
C. via next-hop 10.0 1.50
D. via next-hop 10.0 1 100

Answer: A

NEW QUESTION 495
- (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-brt 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 496
- (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 499
- (Exam Topic 3)
What causes a port to be placed in the err-disabled state?

A. nothing plugged into the port
B. link flapping
C. shutdown command issued on the port
D. latency

Answer: B

NEW QUESTION 504
- (Exam Topic 3)
Which value is the unique identifier that an access point uses to establish and maintain wireless connectivity to wireless network devices?

A. VLANID
B. SSID
C. RFID
D. WLANID

Answer: B

NEW QUESTION 509
- (Exam Topic 3)
How does Rapid PVST+ create a fast loop-free network topology?

A. It requires multiple links between core switches
B. It generates one spanning-tree instance for each VLAN
C. It maps multiple VLANs into the same spanning-tree instance
D. It uses multiple active paths between end stations.

Answer: A

NEW QUESTION 510
- (Exam Topic 3)
Refer to the exhibit.

```
Router#show run
Building configuration...

Current configuration : 1530 bytes
!
! Last configuration change at 11:32:53 UTC Sat Oct 10 2020
upgrade fpd auto
version 15.2
service timestamps debug datetime msec
service timestamps log datetime msec
no service password-encryption
!
hostname Router
!
boot-start-marker
boot-end-marker
!
!
!
no aaa new-model
no ip icmp rate-limit unreachable
!
!
!
!
--More--
```

Which minimum configuration items are needed to enable Secure Shell version 2 access to R15?

A)
```
Router(config)#hostname R15
R15(config)#crypto key generate rsa general-keys modulus 1024
R15(config-line)#line vty 0 15
R15(config-line)# transport input ssh
R15(config)#ip ssh source-interface Fa0/0
R15(config)#ip ssh stricthostkeycheck
```

B)
```
Router(config)#crypto key generate rsa general-keys modulus 1024
Router(config)#ip ssh version 2
Router(config-line)#line vty 0 15
Router(config-line)# transport input ssh
Router(config)#ip ssh logging events
R15(config)#ip ssh stricthostkeycheck
```

C)
```
Router(config)#ip domain-name cisco.com
Router(config)#crypto key generate rsa general-keys modulus 1024
Router(config)#ip ssh version 2
Router(config-line)#line vty 0 15
Router(config-line)# transport input all
Router(config)#ip ssh logging events
```

D)
```
Router(config)#hostname R15
R15(config)#ip domain-name cisco.com
R15(config)#crypto key generate rsa general-keys modulus 1024
R15(config)#ip ssh version 2
R15(config-line)#line vty 0 15
R15(config-line)# transport input ssh
```

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

Answer: C

NEW QUESTION 513
- (Exam Topic 3)
Which type of network attack overwhelms the target server by sending multiple packets to a port until the half-open TCP resources of the target are exhausted?
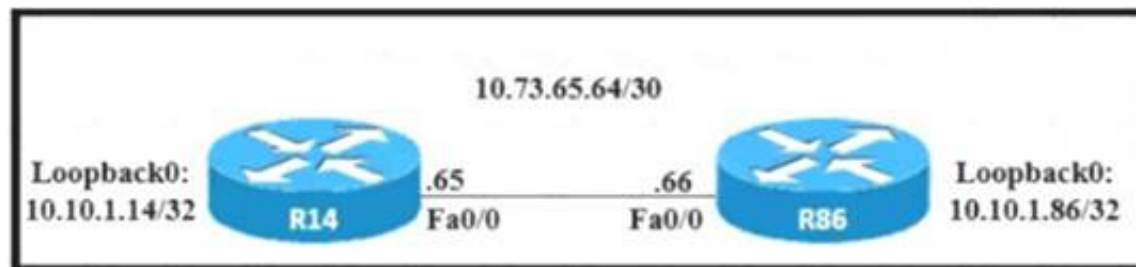
A. SYIM flood
B. reflection
C. teardrop
D. amplification

Answer: A

NEW QUESTION 514
- (Exam Topic 3)
Refer to the exhibit.

A static route must be configured on R14 to forward traffic for the 172 21 34 0/25 network that resides on R86 Which command must be used to fulfill the request?
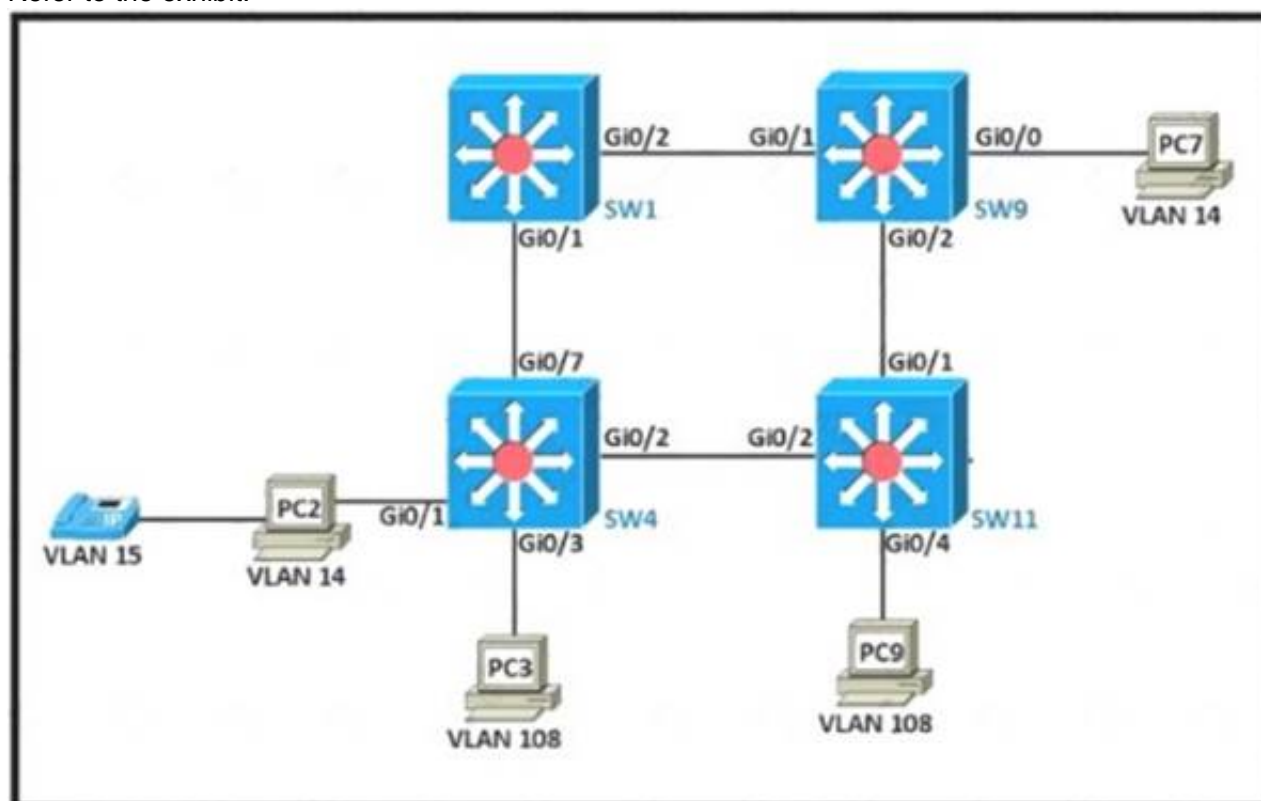
A. ip route 172.21.34.0 255.255.255.192 10.73.65.65
B. ip route 172.21.34.0 255.255.255.0 10.73.65.65
C. ip route 172.21.34.0 255.255.128.0 10.73.65.64
D. ip route 172.21.34.0 255.255.255.128 10.73.65.66

Answer: D

NEW QUESTION 517
- (Exam Topic 3)
Refer to the exhibit.

The following must be considered:
• SW1 is fully configured for all traffic
• The SW4 and SW9 links to SW1 have been configured
• The SW4 interface Gi0/1 and Gi0/0 on SW9 have been configured
• The remaining switches have had all VLANs added to their VLAN database
Which configuration establishes a successful ping from PC2 to PC7 without interruption to traffic flow between other PCs?
A)

```
SW4#
  interface Gi0/2
  switchport mode trunk
  switchport trunk allowed vlan 14

SW11#
  interface Gi0/1
  switchport mode trunk
  switchport trunk allowed vlan 14

SW9#
  interface Gi0/2
  switchport mode trunk
  switchport trunk allowed vlan 108
```

B)

```
SW4#
  interface Gi0/2
  switchport mode trunk
  switchport trunk allowed vlan 14

SW11#
  interface Gi0/1
  switchport mode trunk
  switchport trunk allowed vlan 14

SW9#
  interface Gi0/2
  switchport mode trunk
  switchport trunk allowed vlan 108
```

C)

```
SW4#
 interface Gi0/2
 switchport mode trunk
 switchport trunk allowed vlan 14,108

SW11#
 interface Gi0/2
 switchport mode trunk
 switchport trunk allowed vlan 14,108
 !
 interface Gi0/1
 switchport mode trunk
 switchport trunk allowed vlan 14,108

SW9#
 interface Gi0/2
 switchport mode trunk
 switchport trunk allowed vlan 14
```

D)
```
SW4#
 interface Gi0/2
 switchport mode access
 switchport access vlan 14

SW11#
 interface Gi0/2
 switchport mode access
 switchport access vlan 14
 !
 interface Gi0/0
 switchport mode access
 switchport access vlan 14
 !
 interface Gi0/1
 switchport mode trunk

SW9#
 interface Gi0/2
 switchport mode access
 switchport access vlan 14
```

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

Answer: C

NEW QUESTION 520
- (Exam Topic 3)
Drag and drop the REST API call methods for HTTP from the left onto the actions they perform on the right Not all methods are used.

A. Mastered
B. Not Mastered

Answer: A

Explanation:
Chart, bar chart Description automatically generated

| POST |

| GET |

| DELETE |

| PUT |

| PATCH |

NEW QUESTION 523
- (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
```
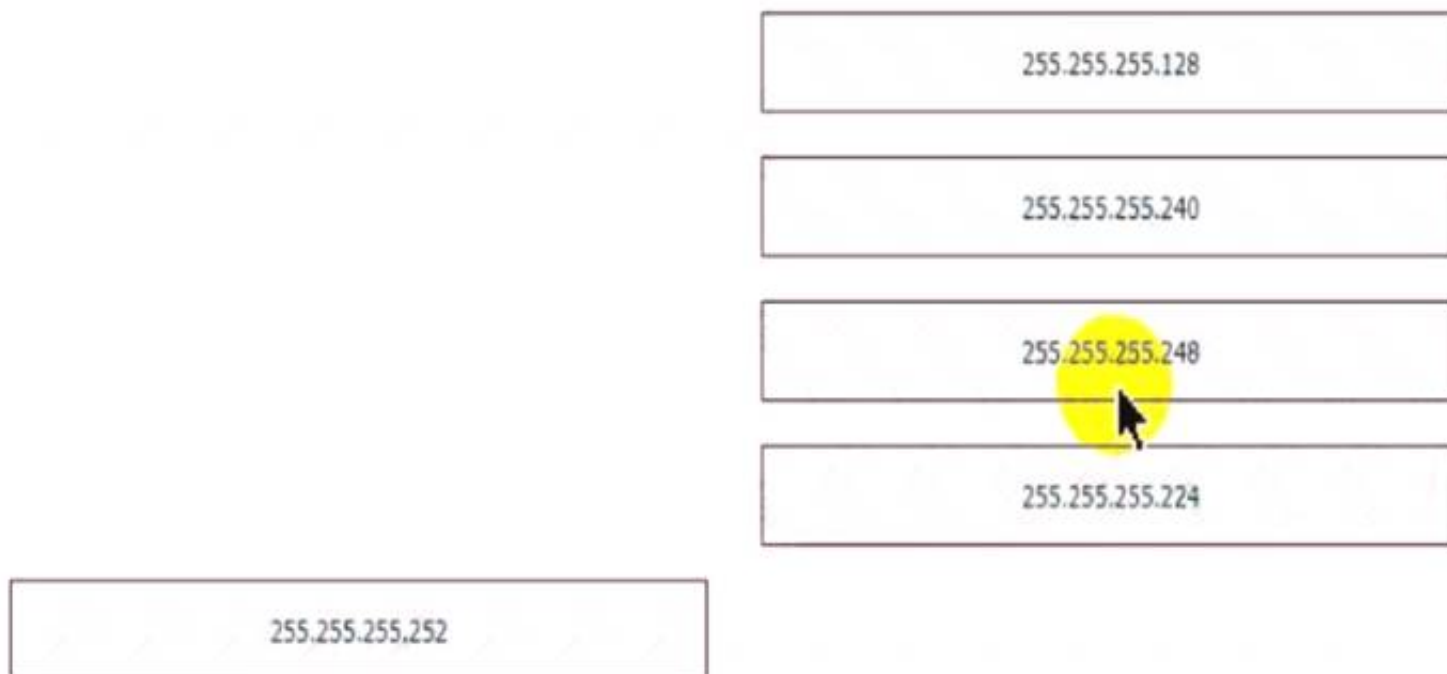
Drag and drop the prefix lengths from the left onto the corresponding prefixes on the right Not all prefixes are used

A. Mastered
B. Not Mastered

Answer: A

Explanation:
Diagram Description automatically generated with low confidence

255.255.255.128

255.255.255.240

255.255.255.248

255.255.255.224

255.255.255.252

NEW QUESTION 525
- (Exam Topic 3)
What is a function of Opportunistic Wireless Encryption in an environment?

A. offer compression
B. increase security by using a WEP connection
C. provide authentication
D. protect traffic on open networks

Answer: D

NEW QUESTION 530
- (Exam Topic 3)
A network engineer is installing an IPv6-only capable device. The client has requested that the device IP address be reachable only from the internal network. Which type of IPv6 address must the engineer assign?

A. unique local address
B. link-local address
C. aggregatable global address
D. IPv4-compatible IPv6 address

Answer: B

NEW QUESTION 535
- (Exam Topic 3)
Which action is taken by the data plane within a network device?

A. forwards traffic to the next hop
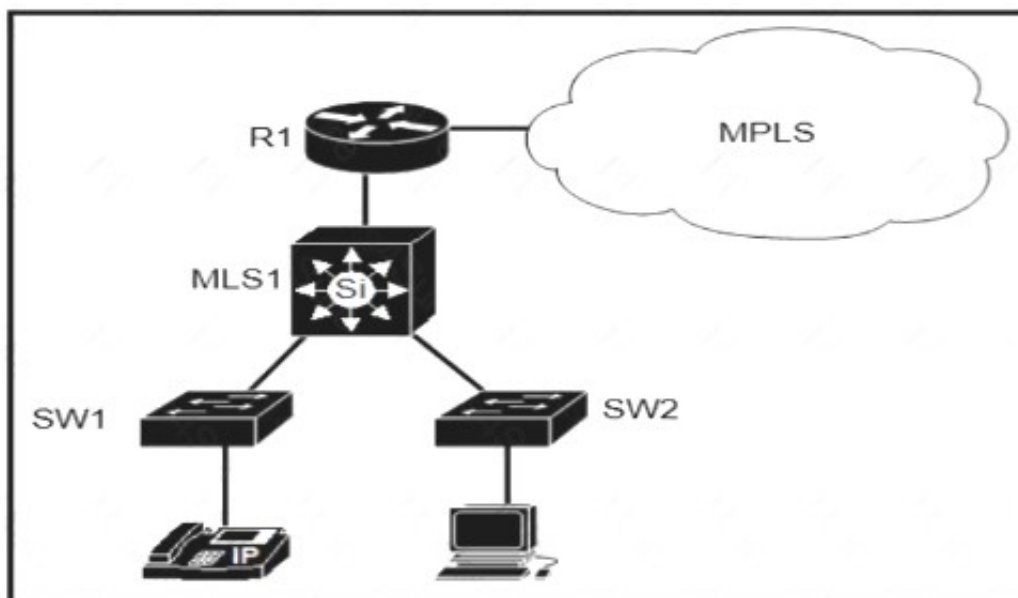B. constructs a routing table based on a routing protocol

C. provides CLI access to the network device
D. looks up an egress interface in the forwarding information base

Answer: A

NEW QUESTION 538
- (Exam Topic 3)
Refer to the exhibit.

Which plan must be Implemented to ensure optimal QoS marking practices on this network?

A. As traffic traverses MLS1 remark the traffic, but trust all markings at the access layer.
B. Trust the IP phone markings on SW1 and mark traffic entering SW2 at SW2.
C. Remark traffic as it traverses R1 and trust all markings at the access layer.
D. As traffic enters from the access layer on SW1 and SW2. trust all traffic markings.

Answer: C

NEW QUESTION 541
- (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 542
- (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 545
- (Exam Topic 3)
Refer to the exhibit.

A network engineer must update the configuration on Switch2 so that it sends LLDP packets every minute and the information sent via LLDP is refreshed every 3 minutes Which configuration must the engineer apply?
A)

```
Switch2(config)#lldp timer 60
Switch2(config)#lldp holdtime 180
```
B)
```
Switch2(config)#lldp timer 60
Switch2(config)#lldp tlv-select 180
```
C)
```
Switch2(config)#lldp timer 1
Switch2(config)#lldp holdtime 3
```
D)
```
Switch2(config)#lldp timer 1
Switch2(config)#lldp tlv-select 3
```

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

Answer: A

NEW QUESTION 549
- (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 551
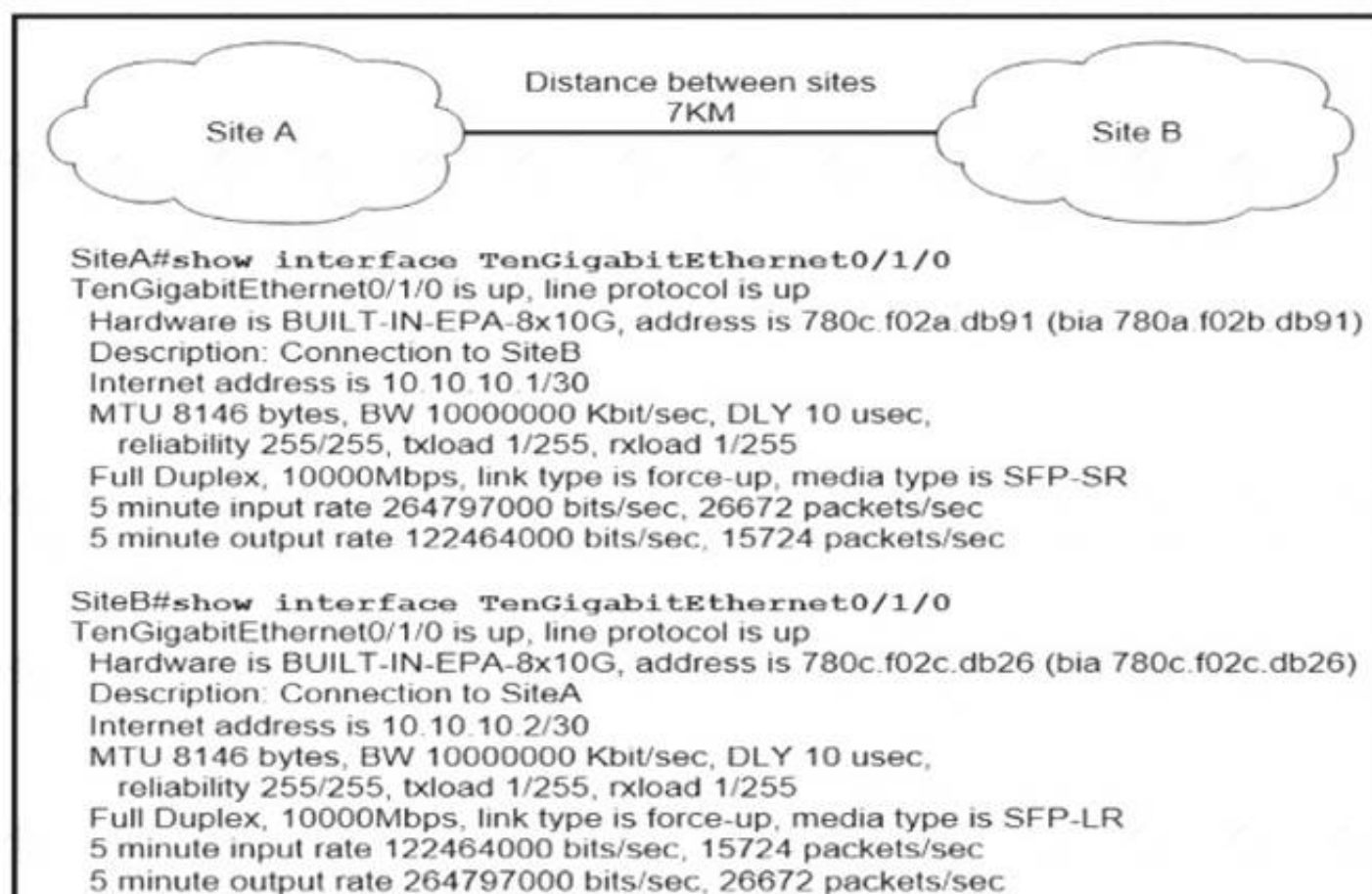- (Exam Topic 3)
Which protocol uses the SSL?

A. HTTP
B. SSH
C. HTTPS
D. Telnet

Answer: C

NEW QUESTION 552
- (Exam Topic 3)
Refer to the exhibit.

Site A was recently connected to site B over a new single-mode fiber path. Users at site A report Intermittent connectivity Issues with applications hosted at site B. What is the reason for the problem?

A. Heavy usage is causing high latency.
B. An incorrect type of transceiver has been inserted into a device on the link.
C. physical network errors are being transmitted between the two sites.
D. The wrong cable type was used to make the connection.

Answer: B

NEW QUESTION 556
- (Exam Topic 3)
Refer to the exhibit.

```
Switch#show ip dhcp snooping                        Switch#show ip dhcp snooping statistics detail
Switch DHCP snooping is enabled                     Packets Processed by DHCP Snooping = 34
Switch DHCP gleaning is disabled                    Packets Dropped Because
DHCP snooping is configured on following VLANs:     IDB not known = 0
1                                                   Queue full = 0
DHCP snooping is operational on following VLANs:    Interface is in errdisabled = 0
1                                                   Rate limit exceeded = 0
DHCP snooping is configured on the following L3 Interfaces:   Received on untrusted ports = 32
Insertion of option 82 is disabled                  Nonzero giaddr = 0
circuit-id default format: vlan-mod-port            Source mac not equal to chaddr = 0
remote-id: aabb.cc00.6500 (MAC)                     No binding entry = 0
Option 82 on untrusted port is not allowed          Insertion of opt82 fail = 0
Verification of hwaddr field is enabled             Unknown packet = 0
Verification of giaddr field is enabled             Interface Down = 0
DHCP snooping trust/rate is configured on the following Interfaces:   Unknown output interface = 0
Interface Trusted Allow option Rate limit (pps)     Misdirected Packets = 0
                                                    Packets with Invalid Size = 0
                                                    Packets with Invalid Option = 0
```

The DHCP server and clients are connected to the same switch. What is the next step to complete the DHCP configuration to allow clients on VLAN 1 to receive addresses from the DHCP server?

A. Configure the ip dhcp snooping trust command on the interlace that is connected to the DHCP client.
B. Configure the ip dhcp relay information option command on the interface that is connected to the DHCP client.
C. Configure the ip dhcp snooping trust command on the interface that is connected to the DHCP server.
D. Configure the Ip dhcp relay information option command on the interface that is connected to the DHCP server.

Answer: C

NEW QUESTION 557
- (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. GigabltEthornet0/1
C. GigabitEthernet0/2
D. GigabitEthernet0/3

Answer: B

NEW QUESTION 560
- (Exam Topic 2)
Which two values or settings must be entered when configuring a new WLAN in the Cisco Wireless LAN Controller GUI? (Choose two)

A. management interface settings
B. QoS settings
C. Ip address of one or more access points
D. SSID
E. Profile name

Answer: DE

NEW QUESTION 564
- (Exam Topic 2)
What is a role of access points in an enterprise network?

A. connect wireless devices to a wired network
B. support secure user logins to devices or the network
C. integrate with SNMP in preventing DDoS attacks
D. serve as a first line of defense in an enterprise network

Answer: A

NEW QUESTION 567
- (Exam Topic 2)
Which two QoS tools provides congestion management? (Choose two)

A. CAR
B. CBWFQ
C. PQ
D. PBR
E. FRTS

Answer: BC

Explanation:
Type of queuing methods are available:• First-In-First-Out (FIFO)• Priority Queuing (PQ)• Custom Queuing (CQ)• Weighted Fair Queuing (WFQ)• Class-Based Weighted Fair Queuing (CBWFQ)• Low-Latency Queuing (LLQ)
https://www.orbit-computer-solutions.com/qos-congestion-management-tools/

NEW QUESTION 569
- (Exam Topic 2)
Which type of traffic is sent with pure iPsec?

A. broadcast packets from a switch that is attempting to locate a MAC address at one of several remote sites
B. multicast traffic from a server at one site to hosts at another location
C. spanning-tree updates between switches that are at two different sites
D. unicast messages from a host at a remote site to a server at headquarters
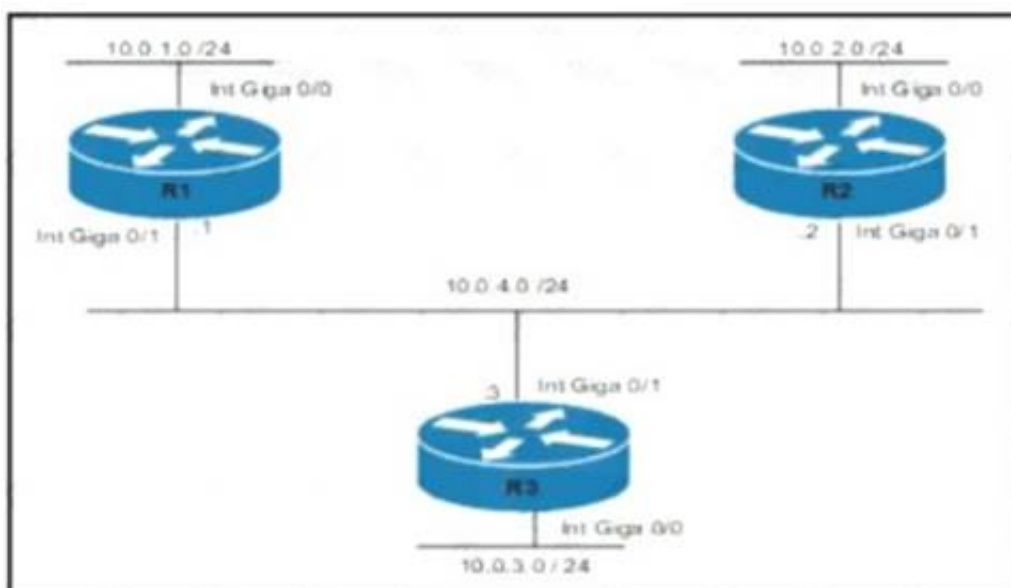
Answer: D

Explanation:
"The original poster makes a correct observation that EIGRP does not work in a pure IPSEC environment. IPSEC was designed to process unicast traffic.

NEW QUESTION 570
- (Exam Topic 3)
Refer to the exhibit.

Routers R1 and R3 have the default configuration The router R2 priority is set to 99 Which commands on R3 configure it as the DR in the 10.0 4.0/24 network?

A. R3(config)#interface Gig0/1 R3(config-if)#ip ospf priority 100
B. R3(config)#interface Gig0/0 R3(config-if)#ip ospf priority 100
C. R3(config)#interface Gig0/0 R3(config-if)i=ip ospf priority 1
D. R3(config)#interface Gig0/1 R3(config-if)#ip ospf priority 0

Answer: B

NEW QUESTION 572
- (Exam Topic 2)
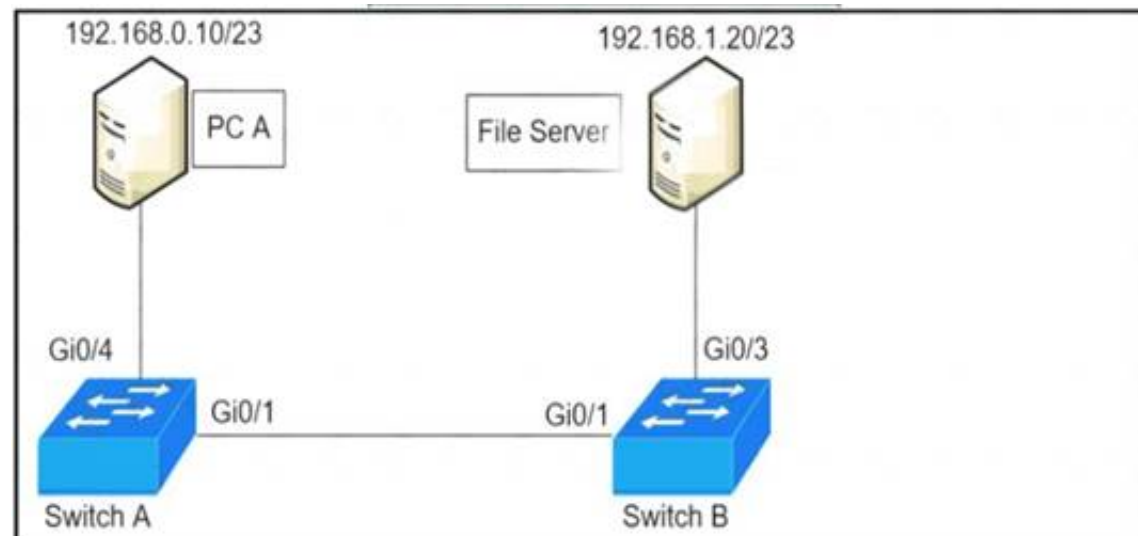What are two reasons for an engineer to configure a floating state route? (Choose two)

A. to automatically route traffic on a secondary path when the primary path goes down
B. to route traffic differently based on the source IP of the packet
C. to enable fallback static routing when the dynamic routing protocol fails
D. to support load balancing via static routing
E. to control the return path of traffic that is sent from the router

Answer: AC

NEW QUESTION 576
- (Exam Topic 2)
Refer to the exhibit.

A network administrator assumes a task to complete the connectivity between PC A and the File Server. Switch A and Switch B have been partially configured with VLAN 10, 11, 12, and 13. What is the next step in the configuration?

A. Add PC A to VLAN 10 and the File Server to VLAN 11 fa VLAN segmentation
B. Add VLAN 13 to the trunk links on Switch A and Switch B for VLAN propagation
C. Add a router on a stick between Switch A and Switch B allowing for Inter-VLAN routing.
D. Add PC A to the same subnet as the Fie Server allowing for intra-VLAN communication.

Answer: B

NEW QUESTION 579
- (Exam Topic 2)
What is the primary different between AAA authentication and authorization?

A. Authentication verifies a username and password, and authorization handles the communication between the authentication agent and the user database.
B. Authentication identifies a user who is attempting to access a system, and authorization validates the users password
C. Authentication identifies and verifies a user who is attempting to access a system, and authorization controls the tasks the user can perform.
D. Authentication controls the system processes a user can access and authorization logs the activities the user initiates

Answer: C

Explanation:
AAA stands for Authentication, Authorization and Accounting.+ Authentication: Specify who you are (usually via login username & password)+ Authorization: Specify what actions you can do, what resource you can access+ Accounting: Monitor what you do, how long you do it (can be used for billing and auditing)An example of AAA is shown below:+ Authentication: "I am a normal user. My username/password is user_tom/learnforever"+ Authorization: "user_tom can access LearnCCNA server via HTTP and FTP"+ Accounting: "user_tom accessed LearnCCNA server for 2 hours". This user only uses "show" commands.

NEW QUESTION 583
- (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 585
- (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
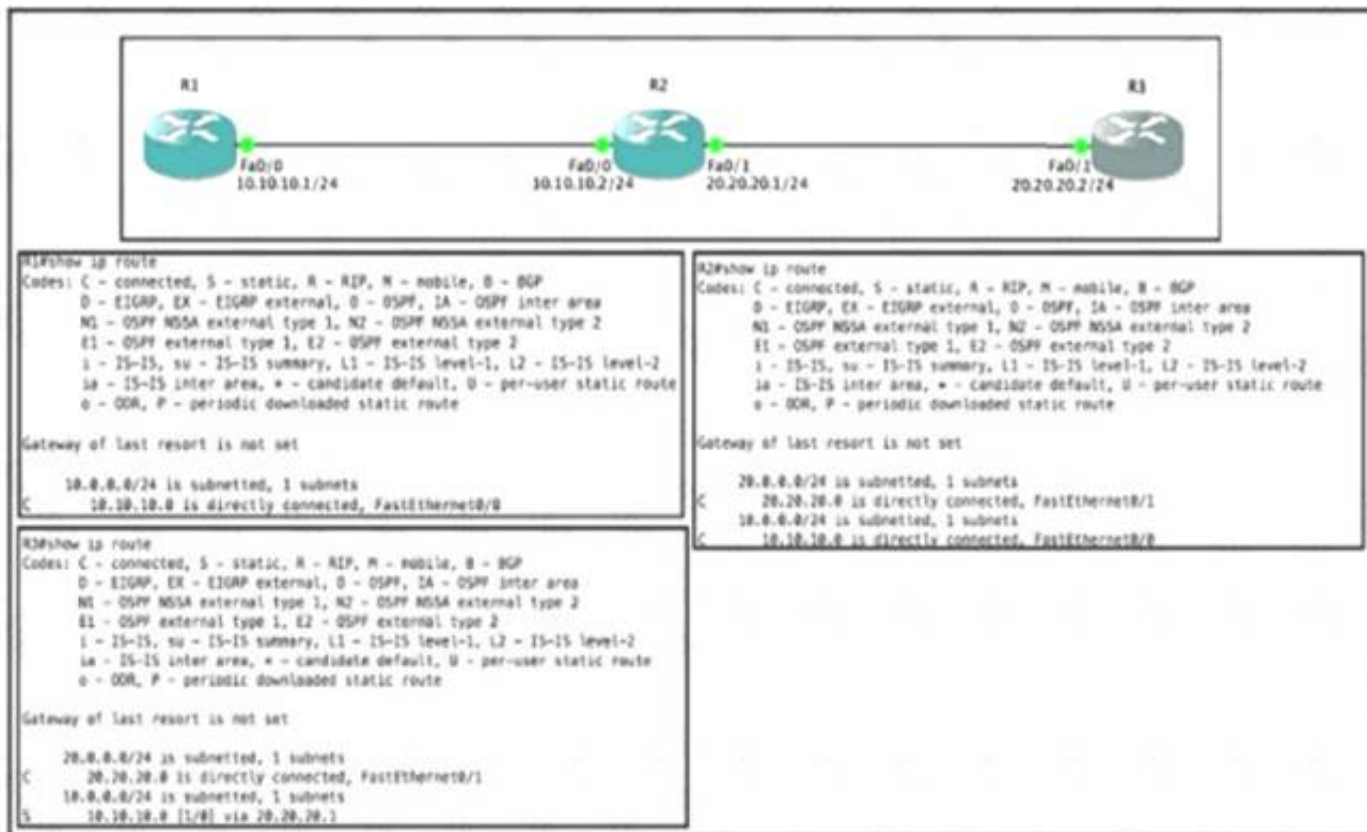
Answer: BC

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 588
- (Exam Topic 2)
Refer to the exhibit.

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 589
- (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 591
- (Exam Topic 2)
An engineer must configure a WLAN using the strongest encryption type for WPA2- PSK. Which cipher fulfills the configuration requirement?

A. WEP
B. RC4
C. AES
D. TKIP

Answer: C

Explanation:
Many routers provide WPA2-PSK (TKIP), WPA2-PSK (AES), and WPA2-PSK (TKIP/AES) as options. TKIP is actually an older encryption protocol introduced with WPA to replace the very-insecure WEP encryption at the time. TKIP is actually quite similar to WEP encryption. TKIP is no longer considered secure, and is now

deprecated. In other words, you shouldn't be using it.
AES is a more secure encryption protocol introduced with WPA2 and it is currently the strongest encryption type for WPA2-PSK.

NEW QUESTION 594
- (Exam Topic 2)
The service password-encryption command is entered on a router. What is the effect of this configuration?

A. restricts unauthorized users from viewing clear-text passwords in the running configuration
B. encrypts the password exchange when a VPN tunnel is established
C. prevents network administrators from configuring clear-text passwords
D. protects the VLAN database from unauthorized PC connections on the switch

Answer: A

NEW QUESTION 595
- (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 596
- (Exam Topic 2)
Where does wireless authentication happen?

A. SSID
B. radio
C. band
D. Layer 2

Answer: D

NEW QUESTION 600
- (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 602
- (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 603
- (Exam Topic 2)
What are two characteristics of an SSID? (Choose Two)

A. It can be hidden or broadcast in a WLAN
B. It uniquely identifies an access point in a WLAN
C. It uniquely identifies a client in a WLAN
D. It is at most 32 characters long.
E. IT provides secured access to a WLAN

Answer: BE

NEW QUESTION 608
- (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 613
- (Exam Topic 2)
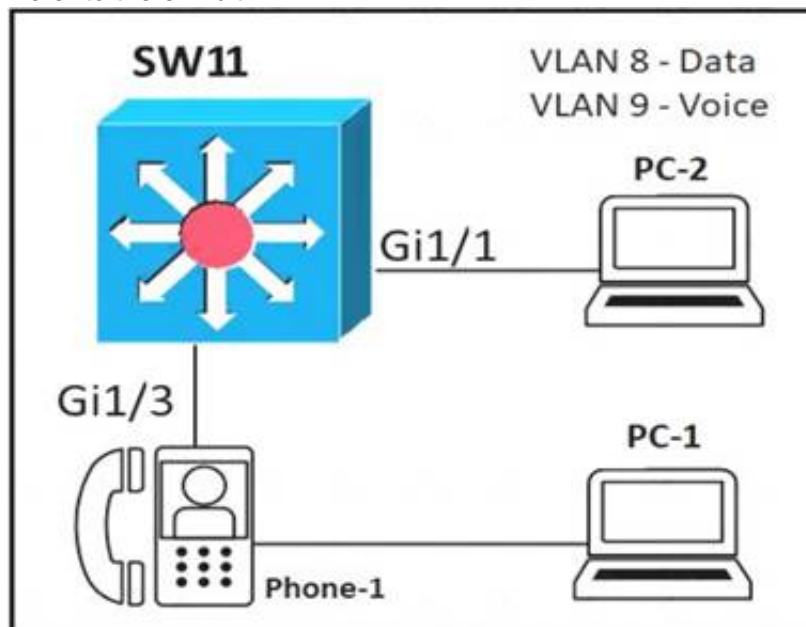How does CAPWAP communicate between an access point in local mode and a WLC?

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 616
- (Exam Topic 2)
Refer to the exhibit.

An administrator must configure interfaces Gi1/1 and Gi1/3 on switch SW11 PC-1 and PC-2 must be placed in the Data VLAN and Phone-1 must be placed in the Voice VLAN Which configuration meets these requirements?

```
  interface gigabitethernet1/1
    switchport mode access
    switchport access vlan 8
    !
  interface gigabitethernet1/3
    switchport mode access
    switchport voice vlan 8
    switchport access vlan 9


  interface gigabitethernet1/1
    switchport mode access
    switchport access vlan 9
    !
  interface gigabitethernet1/3
    switchport mode trunk
    switchport trunk vlan 8
    switchport trunk vlan 9


  interface gigabitethernet1/1
    switchport mode access
    switchport access vlan 8
    !
  interface gigabitethernet1/3
    switchport mode access
    switchport access vlan 8
    switchport voice vlan 9


  interface gigabitethernet1/1
    switchport mode access
    switchport access vlan 8
    !
  interface gigabitethernet1/3
    switchport mode trunk
    switchport trunk vlan 8
    switchport voice vlan 9
```

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

Answer: C

NEW QUESTION 617
- (Exam Topic 2)
What is a function of TFTP in network operations?

A. transfers a backup configuration file from a server to a switch using a username and password
B. transfers files between file systems on a router
C. transfers a configuration files from a server to a router on a congested link
D. transfers IOS images from a server to a router for firmware upgrades

Answer: D

Explanation:
TFTP is mostly used (Firmware upgrade) whereby the admin have the IOS image on one device and uses TFTP to load the image to all other devices quickly.

NEW QUESTION 619
- (Exam Topic 2)
An engineer requires a scratch interface to actively attempt to establish a trunk link with a neighbor switch. What command must be configured?
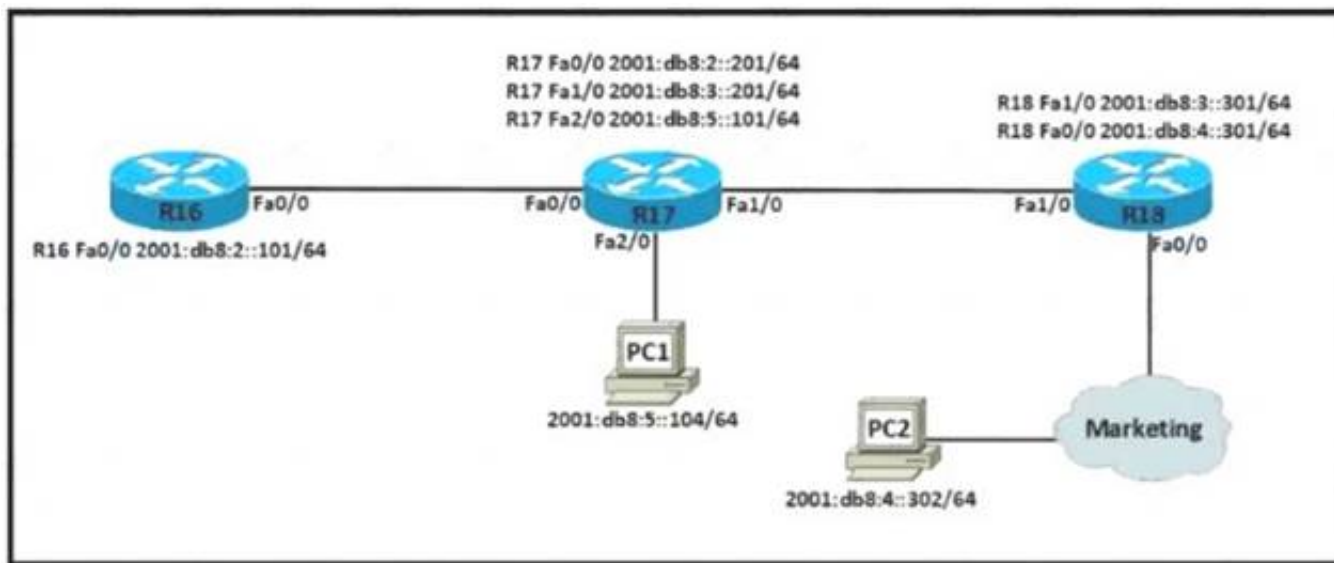
A. switchport mode trunk
B. switchport mode dynamic desirable
C. switchport mode dynamic auto
D. switchport nonegotiate

Answer: C

NEW QUESTION 623
- (Exam Topic 2)
Refer to the exhibit.

Which IPv6 configuration is required for R17 to successfully ping the WAN interface on R18?

A)

```
R17#
!
no ip domain lookup
ip cef
!
interface FastEthernet0/0
no ip address
duplex auto
speed auto
ipv6 address 2001:DB8:3::201/64
!
interface FastEthernet1/0
no ip address
duplex auto
speed auto
ipv6 address 2001:DB8:2::201/64
!
no cdp log mismatch duplex
ipv6 route 2001:DB8:4::/64 2001:DB8:5::101
```

B)

```
R17#
!
no ip domain lookup
ip cef
ipv6 unicast-routing
!
interface FastEthernet0/0
no ip address
duplex auto
speed auto
ipv6 address 2001:DB8:2::201/64
!
interface FastEthernet1/0
no ip address
duplex auto
speed auto
ipv6 address 2001:DB8:3::201/64
!
no cdp log mismatch duplex
ipv6 route 2001:DB8:4::/64 2001:DB8:3::301
```

C)

```
R17#
!
no ip domain lookup
ip cef
ipv6 cef
!
interface FastEthernet0/0
no ip address
duplex auto
speed auto
ipv6 address 2001:DB8:2::201/64
!
interface FastEthernet1/0
no ip address
duplex auto
speed auto
ipv6 address 2001:DB8:3::201/64
!
no cdp log mismatch duplex
ipv6 route 2001:DB8:4::/64 2001:DB8:4::302
```

D)

```
R17#
 !
 no ip domain lookup
 ip cef
 ipv6 unicast-routing
 !
 interface FastEthernet0/0
 no ip address
 duplex auto
 speed auto
 ipv6 address 2001:DB8:2::201/64
 !
 interface FastEthernet1/0
 no ip address
 duplex auto
 speed auto
 ipv6 address 2001:DB8:3::201/64
 !
 no cdp log mismatch duplex
 ipv6 route 2001:DB8:4::/64 2001:DB8:2::201
```

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

Answer: B

Explanation:
ipv6 unicast-routing statement included (IPv6 is enabled on the router).Compared to the exhibit, Fa0/0 and Fa0/1 have correct configurations.The route to subnet 2001:db8:4::/64 points to R18's Fa1/0 (correct next-hop).

NEW QUESTION 628
- (Exam Topic 2)
An organization secures its network with multi-factor authentication using an authenticator app on employee smartphone. How is the application secured in the case of a user's smartphone being lost or stolen?

A. The application requires an administrator password to reactivate after a configured Interval.
B. The application requires the user to enter a PIN before it provides the second factor.
C. The application challenges a user by requiring an administrator password to reactivate when the smartphone is rebooted.
D. The application verifies that the user is in a specific location before it provides the second factor.

Answer: B

NEW QUESTION 633
- (Exam Topic 2)
R1 has learned route 10.10.10.0/24 via numerous routing protocols. Which route is installed?
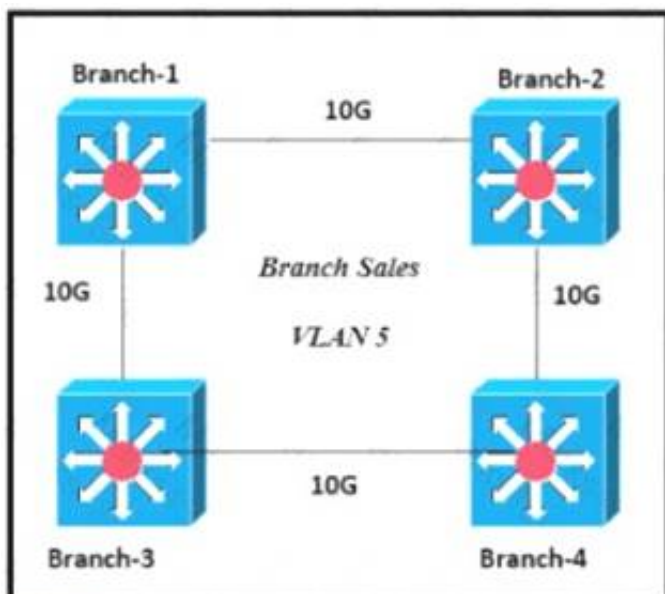
A. route with the lowest cost
B. route with the next hop that has the highest IP
C. route with the shortest prefix length
D. route with the lowest administrative distance

Answer: D

NEW QUESTION 636
- (Exam Topic 2)
Refer to the exhibit.

Only four switches are participating in the VLAN spanning-tree process.
Branch-1 priority 614440
Branch-2: priority 39082416
Branch-3: priority 0
Branch-4: root primary
Which switch becomes the permanent root bridge for VLAN 5?

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

Answer: C

Explanation:
Dynamic ARP inspection is an ingress security feature; it does not perform any egress checking.

NEW QUESTION 640
- (Exam Topic 2)
Refer to the exhibit.

```
R1# show ip route | begin gateway
Gateway of last resort is 209.165.200.246 to network 0.0.0.0
S*  0.0.0.0/0 [1/0] via 209.165.200.246, Serial0/1/0
       is directly connected, Serial0/1/0
       172.16.0.0/16 is variably subnetted, 2 subnets, 2 masks
S      172.16.3.0/24 [1/0] via 209.165.200.250, Serial0/0/0
O      172.16.3.0/28 [110/1] via 209.165.200.254, 00:00:28, Serial0/0/1
       209.165.200.0/24 is variably subnetted, 6 subnets, 2 masks
C      209.165.200.244/30 is directly connected, Serial0/1/0
L      209.165.200.245/32 is directly connected, Serial0/1/0
C      209.165.200.248/30 is directly connected, Serial0/0/0
L      209.165.200.249/32 is directly connected, Serial0/0/0
C      209.165.200.252/30 is directly connected, Serial0/0/1
L      209.165.200.253/32 is directly connected, Serial0/0/1
```

A packet is being sent across router R1 to host 172.16.0.14. What is the destination route for the packet?

A. 209.165.200.254 via Serial0/0/1
B. 209.165.200.254 via Serial0/0/0
C. 209.165.200.246 via Serial0/1/0
D. 209.165.200.250 via Serial0/0/0

Answer: A

NEW QUESTION 644
- (Exam Topic 2)
While examining excessive traffic on the network, it is noted that all incoming packets on an interface appear to be allowed even though an IPv4 ACL is applied to the interface.
Which two misconfigurations cause this behavior? (Choose two)

A. The packets fail to match any permit statement
B. A matching permit statement is too high in the access test
C. A matching permit statement is too broadly defined
D. The ACL is empty
E. A matching deny statement is too high in the access list

Answer: BC

NEW QUESTION 648
- (Exam Topic 2)
An engineer must configure an OSPF neighbor relationship between router R1 and R3 The authentication configuration has been configured and the connecting interfaces are in the same 192.168 1.0/30 sublet. What are the next two steps to complete the configuration? (Choose two.)

A. configure the hello and dead timers to match on both sides
B. configure the same process ID for the router OSPF process
C. configure the same router ID on both routing processes
D. Configure the interfaces as OSPF active on both sides.
E. configure both interfaces with the same area ID

Answer: AE

NEW QUESTION 653
- (Exam Topic 2)
What is a similarly between 1000BASE-LX and 1000BASE-T standards?

A. Both use the same data-link header and trailer formats
B. Both cable types support LP connectors
C. Both cable types support Rj-45 connectors
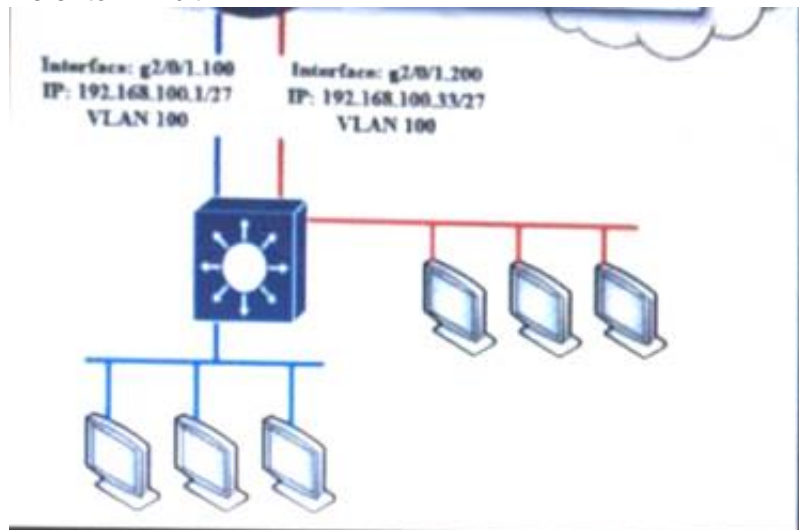D. Both support up to 550 meters between nodes

Answer: A

Explanation:
"In computer networking, Gigabit Ethernet (GbE or 1 GigE) is the term applied to transmitting Ethernet frames at a rate of a gigabit per second." Both standards use Ethernet framing (same headers and trailers)

NEW QUESTION 658
- (Exam Topic 2)
Refer to Exhibit.

Which configuration must be applied to the router that configures PAT to translate all addresses in VLAN 200 while allowing devices on VLAN 100 to use their own IP addresses?

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

Answer: D

NEW QUESTION 662
- (Exam Topic 2)
Which statement correctly compares traditional networks and controller-based networks?

A. Only traditional networks offer a centralized control plane
B. Only traditional networks natively support centralized management
C. Traditional and controller-based networks abstract policies from device configurations
D. Only controller-based networks decouple the control plane and the data plane

Answer: D

Explanation:
Most traditional devices use a distributed architecture, in which each control plane is resided in a networking device. Therefore they need to communicate with each other via messages to work correctly.In contrast to distributed architecture, centralized (or controller-based) architectures centralizes the control of networking devices into one device, called SDN controller

NEW QUESTION 666
- (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 669
- (Exam Topic 2)
Which goal is achieved by the implementation of private IPv4 addressing on a network?

A. provides an added level of protection against Internet exposure
B. provides a reduction in size of the forwarding table on network routers
C. allows communication across the Internet to other private networks
D. allows servers and workstations to communicate across public network boundaries

Answer: A

NEW QUESTION 674
- (Exam Topic 2)
A network administrator needs to aggregate 4 ports into a single logical link which must negotiate layer 2 connectivity to ports on another switch. What must be configured when using active mode on both sides of the connection?

A. 802.1q trunks
B. Cisco vPC
C. LLDP
D. LACP

Answer: D

NEW QUESTION 677
- (Exam Topic 2)
An engineer must establish a trunk link between two switches. The neighboring switch is set to trunk or
desirable mode. What action should be taken?

A. configure switchport nonegotiate
B. configure switchport mode dynamic desirable
C. configure switchport mode dynamic auto
D. configure switchport trunk dynamic desirable

Answer: C

NEW QUESTION 680
- (Exam Topic 2)
Which networking function occurs on the data plane?

A. forwarding remote client/server traffic
B. facilitates spanning-tree elections
C. processing inbound SSH management traffic
D. sending and receiving OSPF Hello packets

Answer: A

NEW QUESTION 683
- (Exam Topic 2)
Refer to the exhibit.

```
ip arp inspection vlan 5-10
interface fastethernet 0/1
    switchport mode access
    switchport access vlan 5
```

What is the effect of this configuration?

A. All ARP packets are dropped by the switch
B. Egress traffic is passed only if the destination is a DHCP server.
C. All ingress and egress traffic is dropped because the interface is untrusted
D. The switch discard all ingress ARP traffic with invalid MAC-to-IP address bindings.

Answer: D

NEW QUESTION 684
- (Exam Topic 2)
Which result occurs when PortFast is enabled on an interface that is connected to another switch?

A. Spanning tree may fail to detect a switching loop in the network that causes broadcast storms
B. VTP is allowed to propagate VLAN configuration information from switch to switch automatically.
C. Root port choice and spanning tree recalculation are accelerated when a switch link goes down
D. After spanning tree converges PortFast shuts down any port that receives BPDUs.

Answer: A

Explanation:
Enabling the PortFast feature causes a switch or a trunk port to enter the STP forwarding-state immediately or upon a linkup event, thus bypassing the listening and learning states.
Note: To enable portfast on a trunk port you need the trunk keyword "spanning-tree portfast trunk

NEW QUESTION 686
- (Exam Topic 2)
Which two must be met before SSH can operate normally on a Cisco IOS switch? (Choose two)

A. The switch must be running a k9 (crypto) IOS image
B. The Ip domain-name command must be configured on the switch
C. IP routing must be enabled on the switch
D. A console password must be configured on the switch
E. Telnet must be disabled on the switch
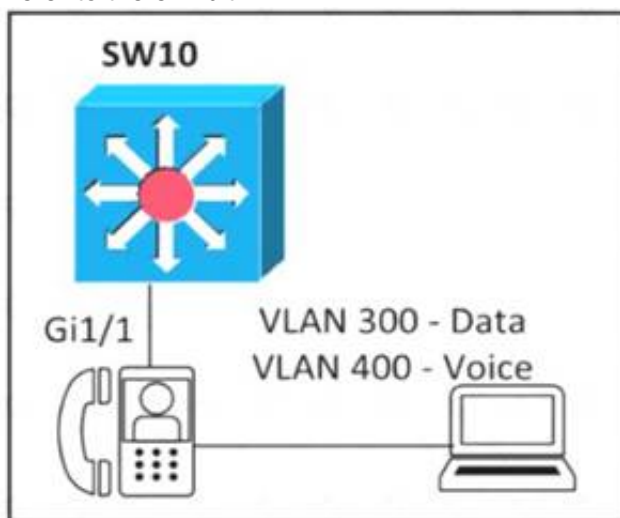
Answer: AB

Explanation:
Reference: https://www.cisco.com/c/en/us/support/docs/security-vpn/secure-shell-ssh/4145-ssh.html

NEW QUESTION 691
- (Exam Topic 2)
Refer to the exhibit.

An engineer must configure GigabitEthernet1/1 to accommodate voice and data traffic Which configuration accomplishes this task?

```
interface gigabitethernet1/1
switchport mode access
switchport access vlan 300
switchport voice vlan 400
```

```
interface gigabitethernet1/1
switchport mode trunk
switchport trunk vlan 300
switchport voice vlan 400
```

```
interface gigabitethernet1/1
switchport mode trunk
switchport trunk vlan 300
switchport trunk vlan 400
```

```
interface gigabitethernet1/1
switchport mode access
switchport voice vlan 300
switchport access vlan 400
```
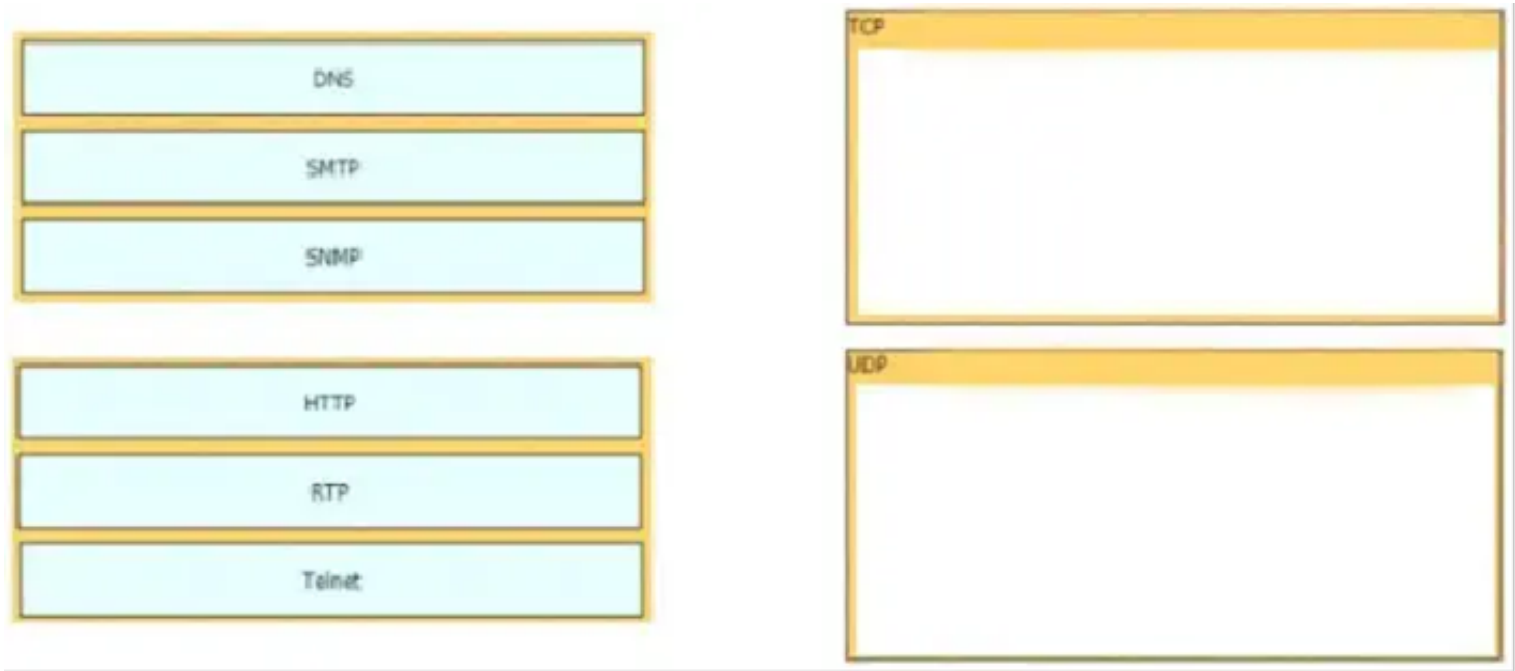
A. Option A
B. Option B
C. Option C
D. Option D

Answer: A

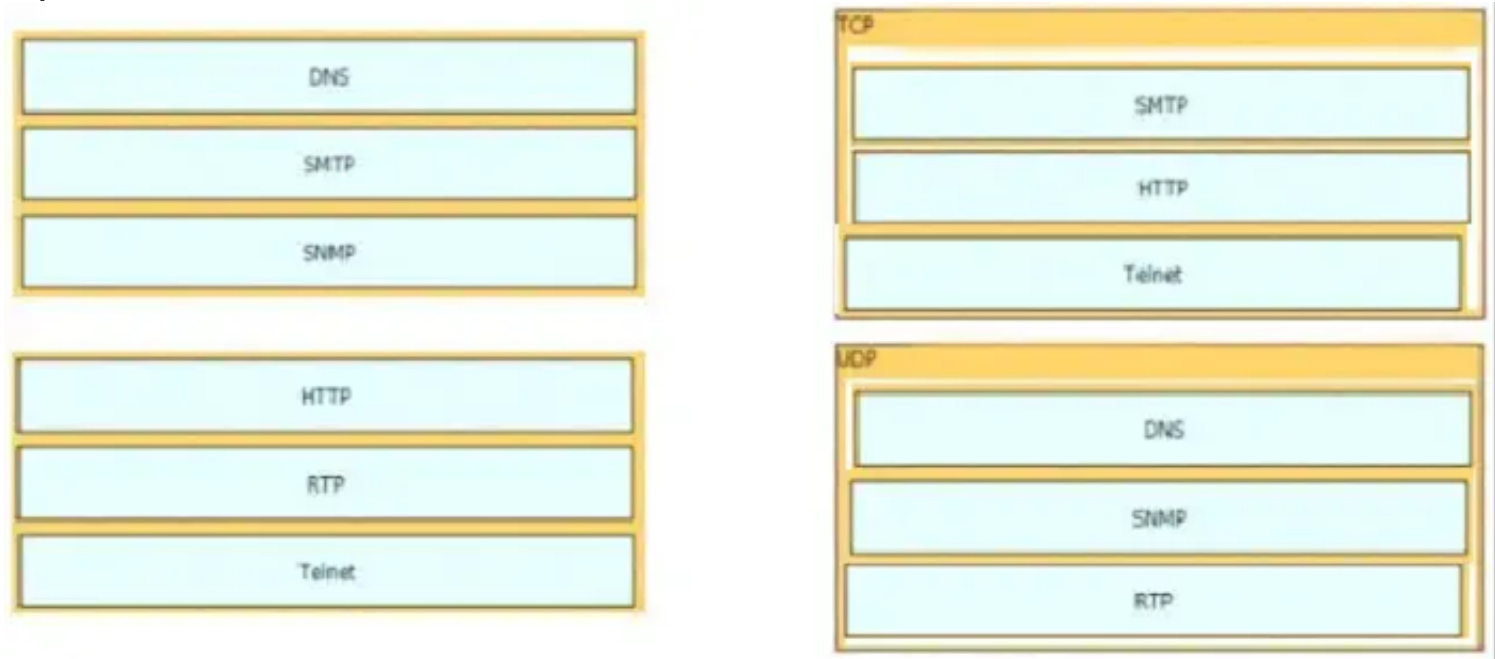**NEW QUESTION 693**
- (Exam Topic 2)
Drag and drop the TCP/IP protocols from the left onto the transmission protocols on the right

DNS
SMTP
SNMP

TCP

HTTP
RTP
Telnet

UDP

A. Mastered
B. Not Mastered

Answer: A

Explanation:

DNS
SMTP
SNMP

TCP
SMTP
HTTP
Telnet

HTTP
RTP
Telnet

UDP
DNS
SNMP
RTP

NEW QUESTION 696
- (Exam Topic 2)
A wireless administrator has configured a WLAN; however, the clients need access to a less congested 5-GHz network for their voice quality. What action must be taken to meet the requirement?

A. enable AAA override
B. enable RX-SOP
C. enable DTIM
D. enable Band Select

Answer: D

NEW QUESTION 700
- (Exam Topic 2)
Refer to me exhibit.

```
Router1#show ip route                                    Keystream Times!
Gateway of last resort is not set                        https://keystream
     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
```

Which action is taken by the router when a packet is sourced from 10.10.10.2 and destined for 10.10.10.16?

A. It uses a route that is similar to the destination address
B. It discards the packets.
C. It floods packets to all learned next hops.
D. It Queues the packets waiting for the route to be learned.

Answer: A

NEW QUESTION 704
- (Exam Topic 2)
Refer to the exhibit.

```
R1# show ip route | begin gateway
Gateway of last resort is 209.165.200.246 to network 0.0.0.0
S*   0.0.0.0/0 [1/0] via 209.165.200.246, Serial0/1/0
        is directly connected, Serial0/1/0
     172.16.0.0/16 is variably subnetted, 3 subnets, 3 masks
S    172.16.0.0/24 [1/0] via 207.165.200.250, Serial0/0/0
O    172.16.0.128/25 [110/38443] via 207.165.200.254, 00:00:23, Serial0/0/1
D    172.16.0.192/29 [90/3184439] via 207.165.200.254, 00:00:25, Serial0/0/1
     209.165.200.0/24 is variably subnetted, 4 subnets, 2 masks
C    209.165.200.248/30 is directly connected, Serial0/0/0
L    209.165.200.249/32 is directly connected, Serial0/0/0
C    209.165.200.252/30 is directly connected, Serial0/0/1
L    209.165.200.253/32 is directly connected, Serial0/0/1
```

With which metric was the route to host 172.16.0.202 learned?

A. 110
B. 38443
C. 3184439

Answer: C

Explanation:
Both the line "O 172.16.0.128/25" and "S 172.16.0.0/24" cover the host 172.16.0.202 but with the "longest (prefix) match" rule the router will choose the first route.

NEW QUESTION 709
- (Exam Topic 2)
Which port type supports the spanning-tree portfast command without additional configuration?

A. access ports
B. Layer 3 main Interfaces
C. Layer 3 suninterfaces
D. trunk ports

Answer: A

NEW QUESTION 714
- (Exam Topic 2)
Which WPA3 enhancement protects against hackers viewing traffic on the Wi-Fi network?

A. TKiP encryption
B. AES encryption
C. scrambled encryption key
D. SAE encryption

Answer: D

NEW QUESTION 715
- (Exam Topic 2)
What is a function of a Layer 3 switch?

A. move frames between endpoints limited to IP addresses
B. transmit broadcast traffic when operating in Layer 3 mode exclusively
C. forward Ethernet frames between VLANs using only MAC addresses
D. flood broadcast traffic within a VLAN

Answer: A

NEW QUESTION 718
- (Exam Topic 2)
A device detects two stations transmitting frames at the same time. This condition occurs after the first 64 bytes of the frame is received interface counter increments?

A. collision
B. CRC
C. runt
D. late collision

Answer: D

Explanation:
https://www.cisco.com/c/en/us/support/docs/interfaces-modules/port-adapters/12768-eth-collisions.html

NEW QUESTION 722
- (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 726
- (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 730
......

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