

**Cisco Certified Network Associate (200-301 CCNA)**

Number: 200-301  
Passing Score: 825  
Time Limit: 120 min  
File Version: 1.0

Terakhir di update tanggal 26 Maret 2021 -SH

## Exam A

### QUESTION 1

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

**Correct Answer: C**

**Section: (none)**

**Explanation**

**Explanation/Reference:**

### QUESTION 2

Which unified access point mode continues to serve wireless clients after losing connectivity to the Cisco Wireless LAN Controller?

- A. sniffer
- B. flexconnect
- C. mesh
- D. local

**Correct Answer: B**

**Section: (none)**

**Explanation**

**Explanation/Reference:**

### QUESTION 3

What is the same for both copper and fiber interfaces when using SFP modules?

- A. They accommodate single-mode and multi-mode in a single module
- B. They support an inline optical attenuator to enhance signal strength
- C. They offer reliable bandwidth up to 100 Mbps in half duplex mode
- D. They provide minimal interruption to services by being hot-swappable

**Correct Answer: D**

**Section: (none)**

**Explanation**

**Explanation/Reference:**

### QUESTION 4

```

SW1(config-line)#line vty 0 15
SW1(config-line)#no login local
SW1(config-line)#password cisco

SW2(config)#username admin1 password abcd1234
SW2(config)#username admin2 password abcd1234
SW2(config-line)#line vty 0 15
SW2(config-line)#login local

SW3(config)#username admin1 secret abcd1234
SW3(config)#username admin2 secret abcd1234
SW3(config-line)#line vty 0 15
SW3(config-line)#login local

SW4(config)#username admin1 secret abcd1234
SW4(config)#username admin2 secret abcd1234
SW4(config-line)#line console 0
SW4(config-line)#login local

```

Refer to the exhibit. An administrator configures four switches for local authentication using passwords that are stored as a cryptographic hash. The four switches must also support SSH access for administrators to manage the network infrastructure. Which switch is configured correctly to meet these requirements?

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

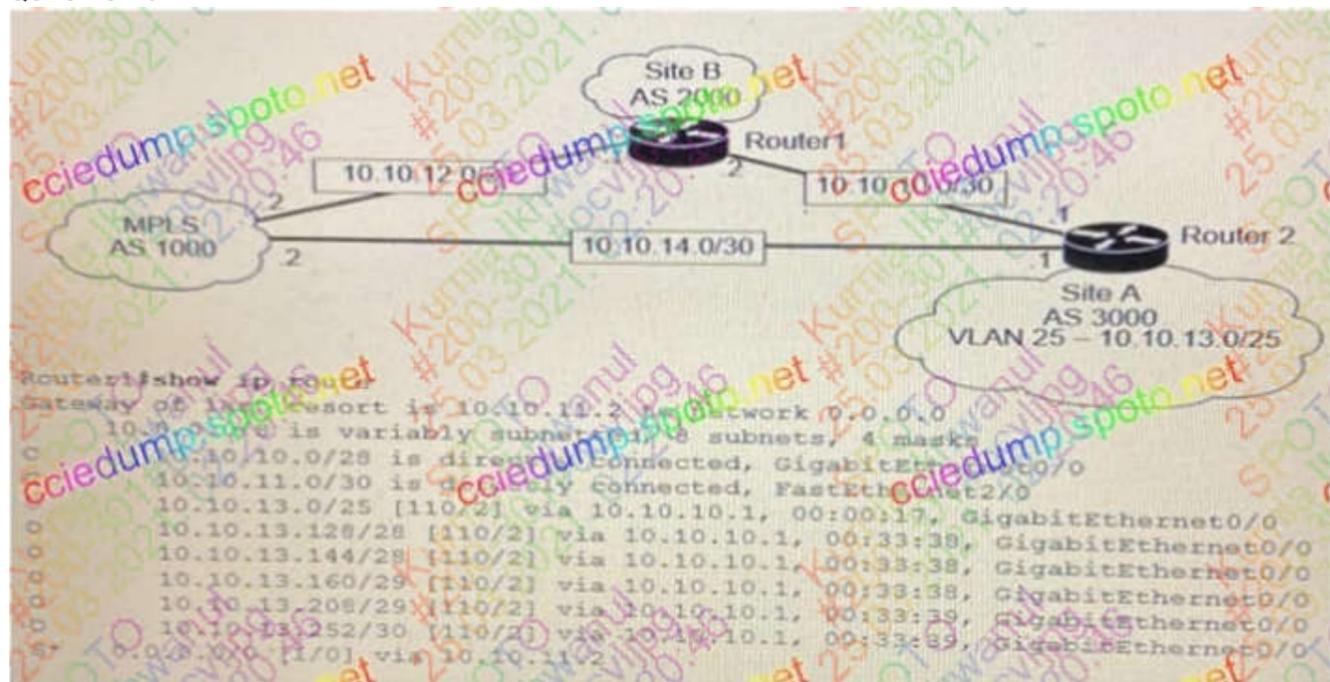
**Correct Answer: C**

**Section: (none)**

**Explanation**

**Explanation/Reference:**

**QUESTION 5**



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

- A. Traffic to 10.10.13.0/25 is asymmetrical.
- B. Traffic to 10.10.13.0/25 is load balanced out of multiple interfaces

- C. Route 10.10.13.0/25 is updated in the routing table as being learned from interface Gi0/1.
- D. Route 10.10.13.0/25 learned via the Gi0/o interface remains in the routing table

**Correct Answer: C**  
**Section: (none)**  
**Explanation**

**Explanation/Reference:**

**QUESTION 6**

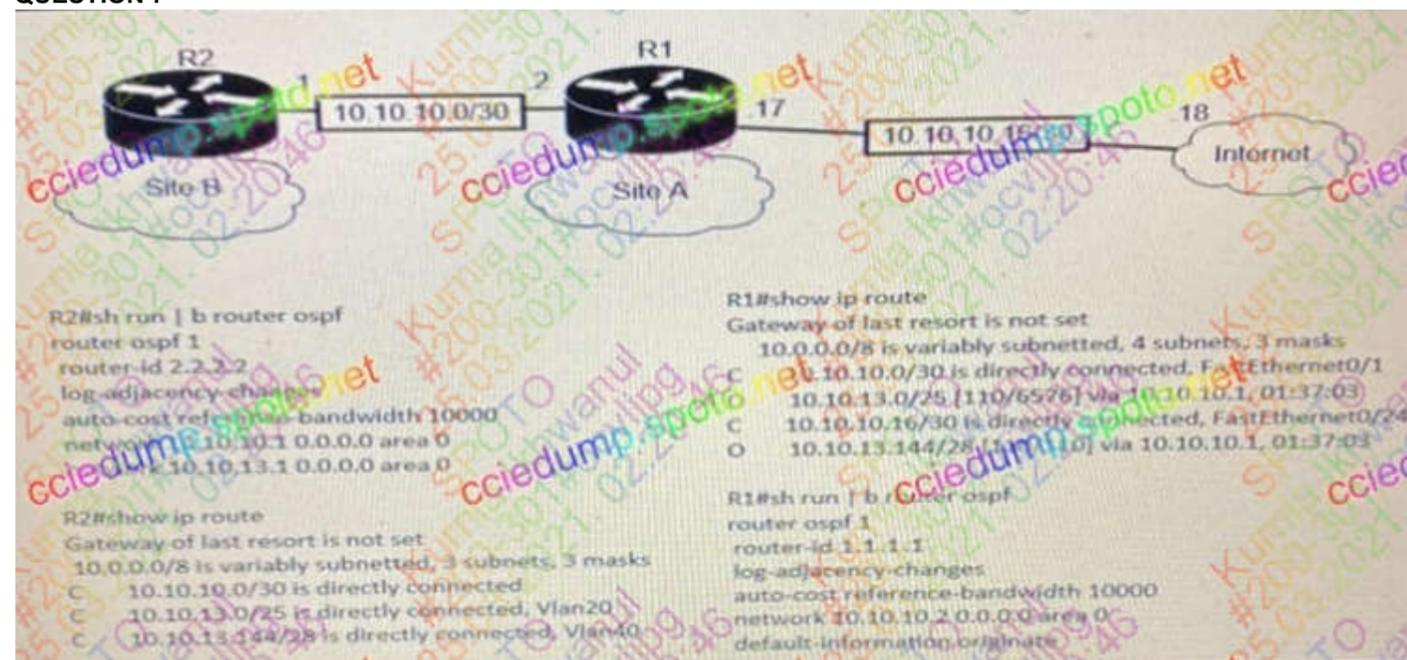
An organization secures its network with multi-factor authentication using an authenticator app on employee smartphones. How is the application secured in the case of a user's smartphone being lost or stolen?

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

**Correct Answer: A**  
**Section: (none)**  
**Explanation**

**Explanation/Reference:**

**QUESTION 7**



Refer to the exhibit. The default-information originate command is configured under the R1 OSPF configuration. After testing, workstations or VLAN 20 at Site B cannot reach a DNS server on the internet. Which action corrects the configuration issue?

- A. Configure the ip route 0.0.0.0 0.0.0.0 10.10.10.18 command on R1
- B. Add the default-information originate command on R2
- C. Add the always keyword to the default-information originate command on R1
- D. Configure the ip route 0.0.0.0 0.0.0.0 10.10.10.2 command on R2

**Correct Answer: A**  
**Section: (none)**  
**Explanation**

**Explanation/Reference:**

**QUESTION 8**

What is a DHCP client?

- A. a workstation that requests a domain name associated with its IP address
- B. a server that dynamically assigns IP addresses to hosts.
- C. a host that is configured to request an IP address automatically
- D. a router that statically assigns IP addresses to hosts.

**Correct Answer: C**

**Section: (none)**

**Explanation**

**Explanation/Reference:**

**QUESTION 9**

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

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

**Correct Answer: C**

**Section: (none)**

**Explanation**

**Explanation/Reference:**

**QUESTION 10**

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

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

**Correct Answer: BC**

**Section: (none)**

**Explanation**

**Explanation/Reference:**

**QUESTION 11**

The SW1 interface gO/1 is in the down/down state. Which two configurations are valid reasons for the interface condition? (Choose two.)

- A. The interface is shut down.
- B. The interface is error-disabled.
- C. There is a duplex mismatch.
- D. There is a protocol mismatch.
- E. There is a speed mismatch.

**Correct Answer:** BE  
**Section:** (none)  
**Explanation**

**Explanation/Reference:**

**QUESTION 12**



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

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

**Correct Answer:** D  
**Section:** (none)  
**Explanation**

**Explanation/Reference:**

**QUESTION 13**

Which two tasks must be performed to configure NTP to a trusted server in client mode on a single network device? (Choose two.)

- A. Verify the time zone.
- B. Disable NTP broadcasts
- C. Specify the IP address of the NTP server.
- D. Set the NTP server private key.
- E. Enable NTP authentication.

**Correct Answer:** CE  
**Section:** (none)  
**Explanation**

**Explanation/Reference:**

**QUESTION 14**

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

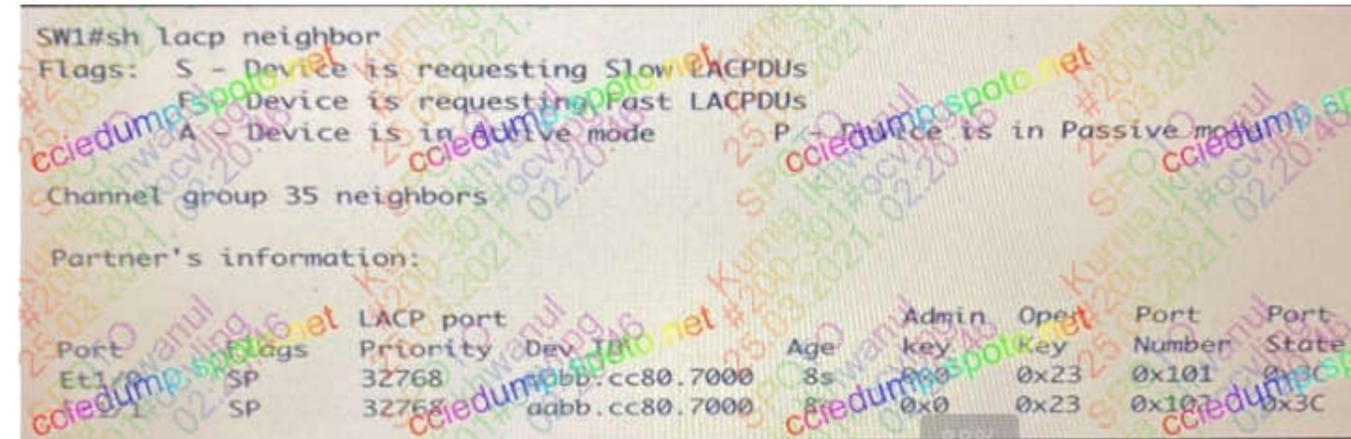
- A. The advertised distance is calculated by a downstream neighbor to inform the local router of the bandwidth on the link.
- B. The router calculates the feasible distance of all paths to the destination route.
- C. The router calculates the reported distance by multiplying the delay on the exiting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

**Correct Answer:** BD  
**Section:** (none)

**Explanation**

**Explanation/Reference:**

**QUESTION 15**



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

- A. auto
- B. mode on
- C. active
- D. passive

**Correct Answer: C**

**Section: (none)**

**Explanation**

**Explanation/Reference:**

**QUESTION 16**

Which command prevents passwords from being stored in the configuration as plain text on a router or switch?

- A. username cisco password encrypt
- B. service password-encryption
- C. enable password
- D. enable secret

**Correct Answer: B**

**Section: (none)**

**Explanation**

**Explanation/Reference:**

**QUESTION 17**

Which design element is a best practice when deploying an 802.11b wireless infrastructure?

- A. allocating nonoverlapping channels to access points that are in close physical proximity to one another
- B. disabling TPC so that access points can negotiate signal levels with their attached wireless devices
- C. setting the maximum data rate to 54 Mbps on the Cisco Wireless LAN Controller
- D. configuring access points to provide clients with a maximum of 5 Mbps

**Correct Answer: D**

**Section: (none)**

Explanation

Explanation/Reference:

QUESTION 18

```
Router#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
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

Gateway of last resort is 209.165.202.131 to network 0.0.0.0
S* 0.0.0.0/0 [1/0] via 209.165.202.131
209.165.200.0/27 is subnetted, 1 subnets
209.165.200.224 [254/0] via 209.165.202.129
209.165.201.0/27 is subnetted, 1 subnets
S 209.165.201.0 [1/0] via 209.165.202.130
```

Refer to the exhibit. Which command configures a floating static route to provide a backup to the primary link?

- A. ip route 209.165.200.224 255.255.255.224 209.165.202.129 254
- B. ip route 209.165.201.0 255.255.255.224 209.165.202.130
- C. ip route 0.0.0.0 0.0.0.0 209.165.202.131
- D. ip route 0.0.0.0 0.0.0.0 209.165.200.224

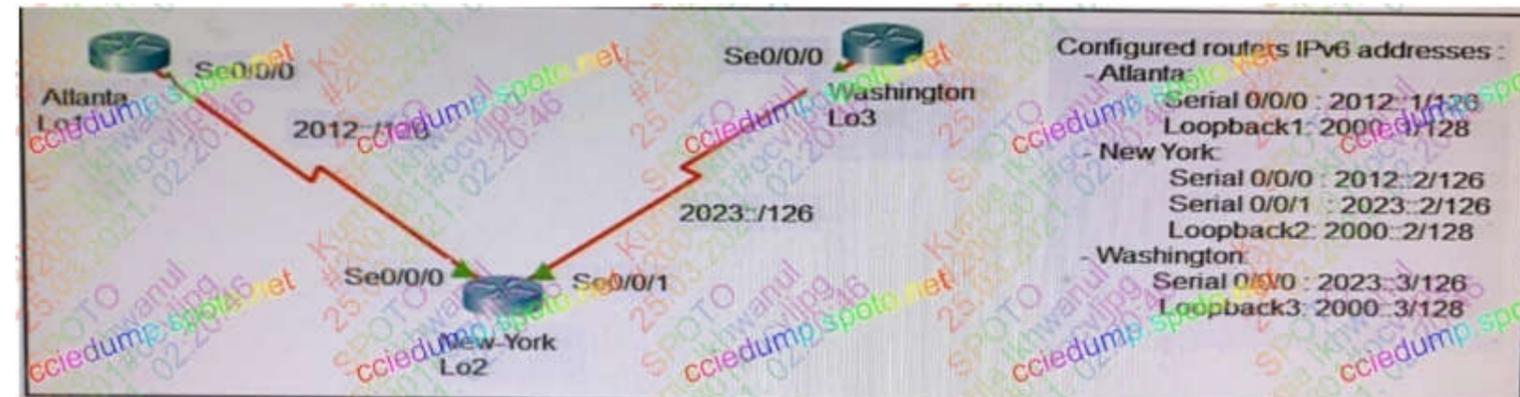
Correct Answer: A

Section: (none)

Explanation

Explanation/Reference:

QUESTION 19



Refer to the exhibit. An engineer configured the New York router with static routes that point to the Atlanta and Washington sites. Which command must be configured on the Atlanta and Washington routers so that both sites are able to reach the loopback2 interface on the New York router?

- A. ipv6 route 0/0 Serial 0/0/0
- B. ipv6 route ::/0 2000::2
- C. ipv6 route ::/0 Serial 0/0/0
- D. ip route 0.0.0.0 0.0.0.0 Serial 0/0/0
- E. ipv6 route ::/0 Serial 0/0/1

**Correct Answer:** C

**Section:** (none)

**Explanation**

**Explanation/Reference:**

**QUESTION 20**

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

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

**Correct Answer:** D

**Section:** (none)

**Explanation**

**Explanation/Reference:**

**QUESTION 21**

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 subnet. 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 interfaces as OSPF active on both sides
- D. configure the same router ID on both routing processes
- E. configure both interfaces with the same area ID

**Correct Answer:** CE

**Section:** (none)

**Explanation**

**Explanation/Reference:**

**QUESTION 22**

A user configured OSPF in a single area between two routers. A serial interface connecting R1 and R2 is running encapsulation PPP. By default, which OSPF network type is seen on this interface when the user types show ip ospf interface on R1 or R2?

- A. point-to-multipoint
- B. broadcast
- C. point-to-point
- D. nonbroadcast

**Correct Answer:** C

**Section:** (none)

**Explanation**

**Explanation/Reference:**

**QUESTION 23**

A router running EIGRP has learned the same route from two different paths. Which parameter does the router use to select the best path?

- A. administrative distance
- B. cost

- C. metric
- D. as-path

**Correct Answer: C**

**Section: (none)**

**Explanation**

**Explanation/Reference:**

**QUESTION 24**

When configuring a WLAN with WPA2 PSK in the Cisco VVreless LAN Controller GUI, which two formats are available to select? (Choose two.)

- A. base64
- B. ASCII
- C. binary
- D. decimal
- E. hexadecimal

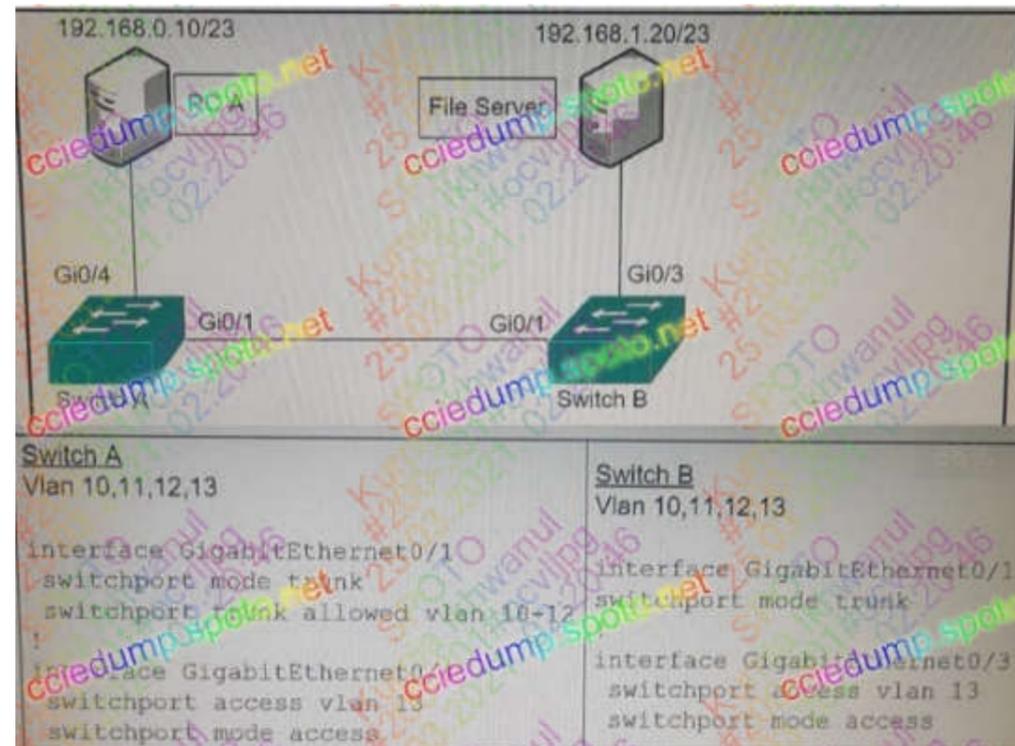
**Correct Answer: BE**

**Section: (none)**

**Explanation**

**Explanation/Reference:**

**QUESTION 25**



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

**Correct Answer:** D  
**Section:** (none)  
**Explanation**

**Explanation/Reference:**

**QUESTION 26**

An engineer needs to configure LLDP to send the port description time length value (TLV). What command sequence must be implemented?

- A. switch(config)#lldp port-description
- B. switch#lldp port-description
- C. switch(config-line)#lldp port-description
- D. switch(config-if)#lldp port description

**Correct Answer:** A  
**Section:** (none)  
**Explanation**

**Explanation/Reference:**

**QUESTION 27**

What is the primary difference between AAA authentication and authorization?

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

**Correct Answer:** A  
**Section:** (none)  
**Explanation**

**Explanation/Reference:**

**QUESTION 28**

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 servers and workstations to communicate across public network boundaries
- D. allows communication across the Internet to other private networks

**Correct Answer:** B  
**Section:** (none)  
**Explanation**

**Explanation/Reference:**

**QUESTION 29**

```
Gateway of last resort is 10.12.0.1 to network 0.0.0.0
0*E2 0.0.0.0 [110/1] via 10.12.0.1, 00:00:01, GigabitEthernet0/0
C 10.0.0.0/8 is variably subnetted, 2 subnets, 2 masks
C 10.0.0.0/24 is directly connected, GigabitEthernet0/0
C 10.0.0.2/32 is directly connected, GigabitEthernet0/0
C 10.13.0.0/24 is directly connected, GigabitEthernet0/1
L 10.13.0.2/32 is directly connected, GigabitEthernet0/1
```

Refer to the exhibit. If configuring a static default route on the router with the ip route 0.0.0.0 0.0.0.0 10.13.0.1 120 command, how does the router respond?

- A. It immediately replaces the existing OSPF route in the routing table with the newly configured static route.
- B. It starts sending traffic without a specific matching entry in the routing table to GigabitEthernet0/1.
- C. It ignores the new static route until the existing OSPF default route is removed.
- D. It starts load-balancing traffic between the two default routes

**Correct Answer: C**  
**Section: (none)**  
**Explanation**

**Explanation/Reference:**

#### QUESTION 30

What is a characteristic of spine-and-leaf architecture?

- A. Each device is separated by the same number of hops.
- B. It provides variable latency.
- C. It provides greater predictability on STP blocked ports
- D. Each link between leaf switches allows for higher bandwidth.

**Correct Answer: D**  
**Section: (none)**  
**Explanation**

**Explanation/Reference:**

#### QUESTION 31

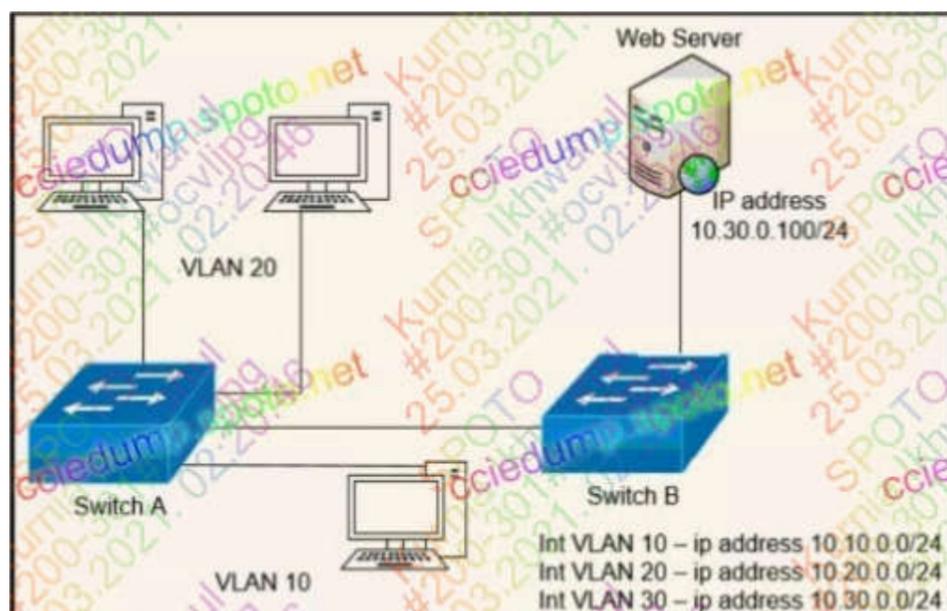
How does HSRP provide first hop redundancy?

- A. It forwards multiple packets to the same destination over different routed links in the data path.
- B. It load-balances Layer 2 traffic along the path by flooding traffic out all interfaces configured with the same VLAN.
- C. 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
- D. It load-balances traffic by assigning the same metric value to more than one route to the same destination in the IP routing table.

**Correct Answer: C**  
**Section: (none)**  
**Explanation**

**Explanation/Reference:**

#### QUESTION 32



Refer to the exhibit. A network engineer must block access for all computers on VLAN 20 to the web server via HTTP. All other computers must be able to access the web server. Which configuration when applied to switch A accomplishes this task?

- A. 

```
config t
ip access-list extended wwwblock
deny tcp any host 10.30.0.100 eq 80
permit ip any any
int vlan 20
ip access-group wwwblock in
```
- B. 

```
config t
ip access-list extended wwwblock
permit ip any any
deny tcp any host 10.30.0.100 eq 80
int vlan 20
ip access-group wwwblock in
```
- C. 

```
config t
ip access-list extended wwwblock
permit ip any any
deny tcp any host 10.30.0.100 eq 80
int vlan 30
ip access-group wwwblock in
```
- D. 

```
config t
ip access-list extended wwwblock
deny tcp any host 10.30.0.100 eq 80
int vlan 10
ip access-group wwwblock in
```

**Correct Answer:** A

**Section:** (none)

**Explanation**

**Explanation/Reference:**

### QUESTION 33

Which statement compares traditional networks and controller-based networks?

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

D. Only traditional networks offer a centralized control plane.

**Correct Answer:** B

**Section:** (none)

**Explanation**

**Explanation/Reference:**

**QUESTION 34**

What configuration management mechanism uses TCP port 22 by default when communicating with managed nodes?

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

**Correct Answer:** A

**Section:** (none)

**Explanation**

**Explanation/Reference:**

**QUESTION 35**

What is a difference between RADIUS and TACACS+?

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

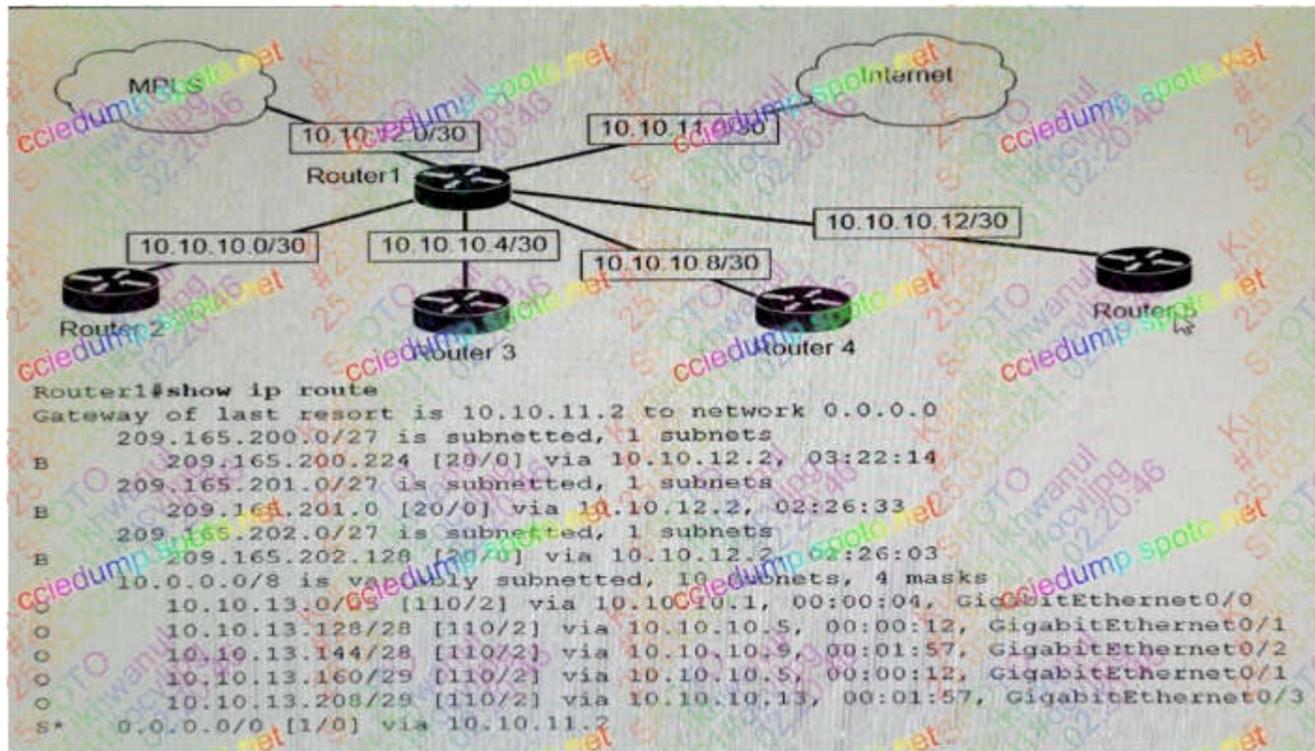
**Correct Answer:** A

**Section:** (none)

**Explanation**

**Explanation/Reference:**

**QUESTION 36**



Refer to the exhibit. To which device does Router1 send packets that are destined to host 10.10.13.165?

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

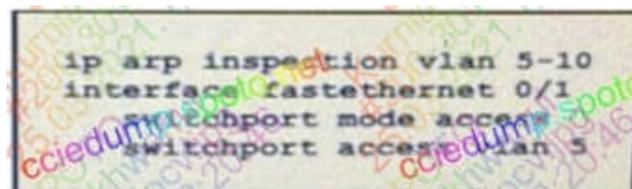
**Correct Answer:** A

**Section:** (none)

**Explanation**

**Explanation/Reference:**

**QUESTION 37**



Refer to the exhibit. What is the effect of this configuration?

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

**Correct Answer:** D

**Section:** (none)

**Explanation**

**Explanation/Reference:**

**QUESTION 38**

What are two descriptions of three-tier network topologies? (Choose two.)

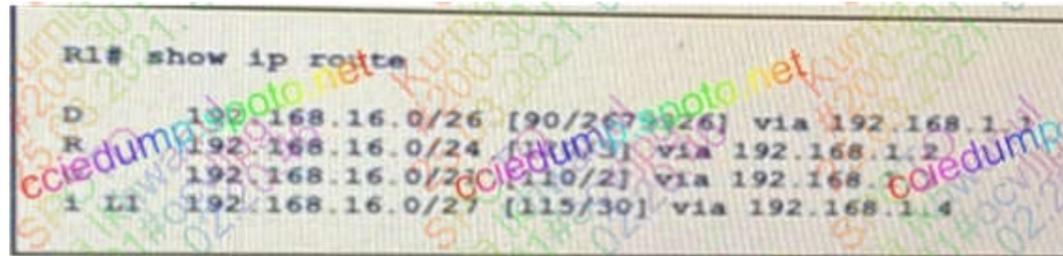
- A. The core layer maintains wired connections for each host.
- B. The core and distribution layers perform the same functions.
- C. The access layer manages routing between devices in different domains.
- D. The network core is designed to maintain continuous connectivity when devices fail.
- E. The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

**Correct Answer:** DE

**Section:** (none)

**Explanation**

**Explanation/Reference:**

**QUESTION 39**

```
R1# show ip route
D 192.168.16.0/26 [90/267526] via 192.168.1.1
R 192.168.16.0/24 [120/20] via 192.168.1.2
  192.168.16.0/21 [110/2] via 192.168.1.3
  192.168.16.0/27 [115/30] via 192.168.1.4
```

Refer to the exhibit. Which route does R1 select for traffic that is destined to 192.168.16.2?

- A. 192.168.16.0/27
- B. 192.168.16.0/21
- C. 192.168.16.0/24
- D. 192.168.26.0/26

**Correct Answer:** A

**Section:** (none)

**Explanation**

**Explanation/Reference:**

**QUESTION 40**

What makes Cisco DNA Center different from traditional network management applications and their management of networks?

- A. It only supports auto-discovery of network elements in a greenfield deployment.
- B. It does not support high availability of management functions when operating in cluster mode.
- C. It abstracts policy from the actual device configuration.
- D. Its modular design allows someone to implement different versions to meet the specific needs of an organization.

**Correct Answer:** D

**Section:** (none)

**Explanation**

**Explanation/Reference:**

**QUESTION 41**

How do traditional campus device management and Cisco DNA Center device management differ in regards to deployment?

- A. Cisco DNA Center device management can be implemented at a lower cost than most traditional campus device management options.
- B. Traditional campus device management schemes can typically deploy patches and updates more quickly than Cisco DNA Center device management.
- C. Traditional campus device management allows a network to scale more quickly than with Cisco DNA Center device management.
- D. Cisco DNA Center device management can deploy a network more quickly than traditional campus device management.

**Correct Answer: D**  
**Section: (none)**  
**Explanation**

**Explanation/Reference:**

**QUESTION 42**

Which two conditions must be met before SSH can operate normally on a Cisco IOS switch? (Choose two.)

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

**Correct Answer: DE**  
**Section: (none)**  
**Explanation**

**Explanation/Reference:**

**QUESTION 43**

```

Router1(config)#interface GigabitEthernet1/1
Router1(config-if)#description ***Connection to Router2***
Router1(config-if)#ip address 10.10.10.1 255.255.255.252
Router1(config-if)#ip ospf hello-interval 5
Router1(config)#router ospf 1000
Router1(config-router)#router-id 1.1.1.1
Router1(config-router)#network 10.10.10.0 0.0.0.3 area 0

Router2(config)#interface GigabitEthernet1/1
Router2(config-if)#description ***Connection to Router1***
Router2(config-if)#ip address 10.10.10.2 255.255.255.252
Router2(config)#router ospf 1001
Router2(config-router)#router-id 2.2.2.2
Router2(config-router)#network 10.10.10.0 0.0.0.3 area 0
Router2(config-router)#passive-interface default
Router2(config-router)#no passive-interface GigabitEthernet1/1
  
```

Refer to the exhibit. After the configuration is applied, the two routers fail to establish an OSPF neighbor relationship. What is the reason for the problem?

- A. Router2 is using the default hello timer.
- B. The network statement on Router1 is misconfigured.
- C. The OSPF process IDs are mismatched.
- D. The OSPF router IDs are mismatched.

**Correct Answer:** A  
**Section:** (none)  
**Explanation**

**Explanation/Reference:**

**QUESTION 44**

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

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

**Correct Answer:** A  
**Section:** (none)  
**Explanation**

**Explanation/Reference:**

**QUESTION 45**

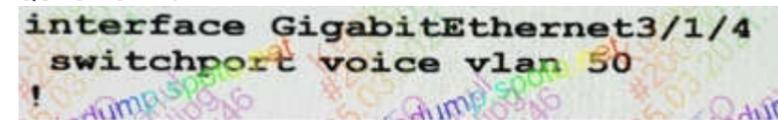
Which IPv6 address type provides communication between subnets and is unable to route on the Internet?

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

**Correct Answer:** C  
**Section:** (none)  
**Explanation**

**Explanation/Reference:**

**QUESTION 46**



```
interface GigabitEthernet3/1/4
switchport voice vlan 50
!
```

Refer to the exhibit. An administrator is tasked with configuring a voice VLAN. What is the expected outcome when a Cisco phone is connected to the GigabitEthernet3/1/4 port on a switch?

- A. The phone sends and receives data in VLAN 50, but a workstation connected to the phone sends and receives data in VLAN 1.
- B. The phone and a workstation that is connected to the phone do not have VLAN connectivity.
- C. The phone sends and receives data in VLAN 50, but a workstation connected to the phone has no VLAN connectivity.
- D. The phone and a workstation that is connected to the phone send and receive data in VLAN 50.

**Correct Answer:** A  
**Section:** (none)  
**Explanation**

**Explanation/Reference:**

**QUESTION 47**

```
SW1#show run int gig 0/1
interface GigabitEthernet0/1
switchport access vlan 11
switchport trunk allowed vlan 1-10
switchport trunk encapsulation dot1q
switchport trunk native vlan 5
switchport mode trunk
speed 1000
duplex full
```

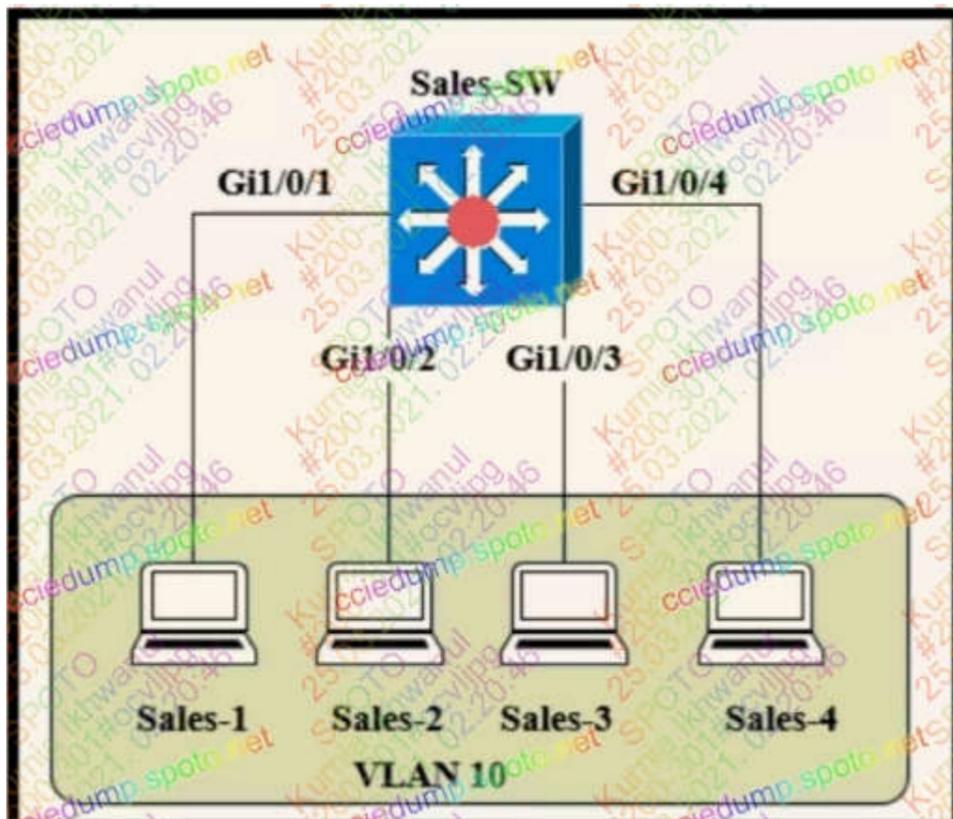
Refer to the exhibit. Which action is expected from SW1 when the untagged frame is received on the GigabitEthernet0/1 interface?

- A. The frame is processed in VLAN 1.
- B. The frame is dropped.
- C. The frame is processed in VLAN 11.
- D. The frame is processed in VLAN 5.

**Correct Answer: D**  
**Section: (none)**  
**Explanation**

**Explanation/Reference:**

#### QUESTION 48



Refer to the exhibit. The entire contents of the MAC address table are shown. Sales-4 sends a data frame to Sales-1.

```
Sales-SW#show mac-address-table
Mac Address Table
```

```
-----
VLAN  MAC Address  Type    Ports
10     000C.8590.bb7d  DYNAMIC Gi1/0/1
10     3XXX.XXXX.XXXX  DYNAMIC Gi1/0/2
10     00d0.d3b6.957c  DYNAMIC Gi1/0/3
Sales-SW#
```

What does the switch do as it receives the frame from Sales-4?

- A. Map the Layer 2 MAC address to the Layer 3 IP address and forward the frame.
- B. Insert the source MAC address and port into the forwarding table and forward the frame to Sales-1.
- C. Flood the frame out of all ports except on the port where Sales-1 is connected.
- D. Perform a lookup in the MAC address table and discard the frame due to a missing entry.

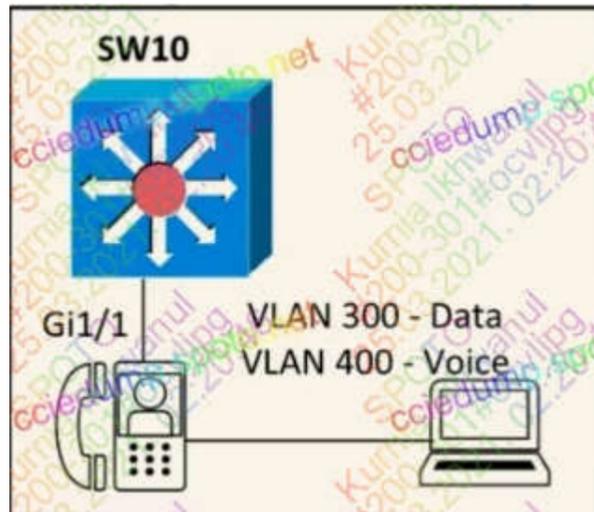
**Correct Answer: B**

**Section: (none)**

**Explanation**

**Explanation/Reference:**

#### QUESTION 49



Refer to the exhibit. An engineer must configure GigabitEthernet1/1 to accommodate voice and data traffic. Which configuration accomplishes this

- A. interface gigabitethemet1/1  
switchport mode access  
switchport voice vlan 300  
switchport access vlan 400
- B. interface gigabitethemet1/1  
switchport mode access  
switchport access vlan 300  
switchport voice vlan 400
- C. interface gigabitethernet1/1  
switchport mode trunk

- switchport trunk vlan 300
- switchport trunk vlan 400
- D. interface gigabitethernet1/1
- switchport mode trunk
- switchport trunk vlan 300
- switchport voice vlan 400

**Correct Answer:** B

**Section:** (none)

**Explanation**

**Explanation/Reference:**

#### QUESTION 50

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

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

**Correct Answer:** C

**Section:** (none)

**Explanation**

**Explanation/Reference:**

#### QUESTION 51

Which protocol does an access point use to draw power from a connected switch?

- A. Neighbor Discovery Protocol
- B. Adaptive Vfireless Path Protocol
- C. Internet Group Management Protocol
- D. Cisco Discovery Protocol

**Correct Answer:** D

**Section:** (none)

**Explanation**

**Explanation/Reference:**

#### QUESTION 52

Where does a switch maintain DHCP snooping information?

- A. in the CAM table
- B. in the MAC address table
- C. in the binding database
- D. in the frame forwarding database

**Correct Answer:** C

**Section:** (none)

**Explanation**

**Explanation/Reference:**

#### QUESTION 53

Which advantage does the network assurance capability of Cisco DNA Center provide over traditional campus management?

- A. Cisco DNA Center automatically compares security postures among network devices, and traditional campus management needs manual comparisons.
- B. Cisco DNA Center correlates information from different management protocols to obtain insights, and traditional campus management requires manual analysis.
- C. Cisco DNA Center handles management tasks at the controller to reduce the load on infrastructure devices, and traditional campus management uses the data backbone.
- D. Cisco DNA Center leverages YANG and NETCONF to assess the status of fabric and nonfabric devices, and traditional campus management uses CLI exclusively.

**Correct Answer:** B

**Section:** (none)

**Explanation**

**Explanation/Reference:**

#### QUESTION 54

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

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

**Correct Answer:** C

**Section:** (none)

**Explanation**

**Explanation/Reference:**

#### QUESTION 55

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 :db8:0::500:a:4F:583B
- B. ipv6 address 2001:db8::500:a:400F:583B
- C. ipv6 address 2001:0db8::5:a:4F:583B
- D. ipv6 address 2001::db8:0000::500:a:400F:58SB

**Correct Answer:** B

**Section:** (none)

**Explanation**

**Explanation/Reference:**

#### QUESTION 56

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

- A. Re-Anchor Roamed Clients
- B. EAP Split Tunnel
- C. Client Band Select
- D. 11ac MU-MIMO

**Correct Answer:** C

**Section:** (none)

**Explanation**

**Explanation/Reference:**

**QUESTION 57**

A network administrator must to configure SSH for remote access to router R1. The requirement is to use a public and private key pair to encrypt management traffic to and from the connecting client Which configuration, when applied, meets the requirements?

- A. R1#enable  
R1#configure terminal  
R1 (config)#ip domain-name cisco.com  
R1(config)#crypto key generate rsa modulus 1024
- B. R1#enable  
R1#configure terminal  
R1(config)#ip domain-name cisco.com  
R1 (config)#crypto key encrypt rsa name myKey
- C. R1#enable  
R1#configure terminal  
R1 (config)#ip domain-name cisco.com  
R1 (config)#crypto key generate ec keysize 2048
- D. R1 #enable  
R1#configure terminal  
R1 (config)#ip domain-name cisco.com  
R1 (config)#crypto key generate ec keysize 1024

**Correct Answer:** A

**Section:** (none)

**Explanation**

**Explanation/Reference:**

**QUESTION 58**

Which two QoS tools provide congestion management? (Choose two.)

- A. CAR
- B. CBWFQ
- C. PQ
- D. FRTS
- E. PB

**Correct Answer:** BC

**Section:** (none)

**Explanation**

**Explanation/Reference:**

**QUESTION 59**

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

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

**Correct Answer:** C

**Section:** (none)

**Explanation**

**Explanation/Reference:**

**QUESTION 60**

Which command automatically generates an IPv6 address from a specified IPV6 prefix and MAC address of an interface?

- A. ipv6 address 2001:D88:5:112::/64 eui-64
- B. ipv6 address 2001:088:5:112::2/64 link-local
- C. ipv6 address autoconfigure
- D. ipv6 address dhcp

**Correct Answer: C**

**Section: (none)**

**Explanation**

**Explanation/Reference:**

**QUESTION 61**

Two switches are connected and using Cisco Dynamic Trunking Protocol. SW1 is set to Dynamic Auto and SW2 is set to Dynamic Desirable. What is the result of this configuration?

- A. The link becomes an access port
- B. The link is in a down state.
- C. The link becomes a trunk port
- D. The link is in an error disabled state.

**Correct Answer: C**

**Section: (none)**

**Explanation**

**Explanation/Reference:**

**QUESTION 62**

What is a function of TFTP in network operations?

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

**Correct Answer: C**

**Section: (none)**

**Explanation**

**Explanation/Reference:**

**QUESTION 63**

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

Refer to the exhibit. How does router R1 handle traffic to 192.168.10.16?

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

**Correct Answer:** D  
**Section:** (none)  
**Explanation**

**Explanation/Reference:**

**QUESTION 64**

What mechanism carries multicast traffic between remote sites and supports encryption?

- A. IPsec over ISATAP
- B. GRE
- C. ISATAP
- D. GRE over IPsec

**Correct Answer:** D  
**Section:** (none)  
**Explanation**

**Explanation/Reference:**

**QUESTION 65**

Which feature on the Cisco Wireless LAN Controller when enabled restricts management access from specific networks?

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

**Correct Answer:** B  
**Section:** (none)  
**Explanation**

**Explanation/Reference:**

**QUESTION 66**

```
R1# show ip route
.....
D 172.16.32.0/24 [90/2888597172] via 20.1.1.1
O 172.16.32.0/24 [110/2920] via 20.1.1.1
S 172.16.32.0/24 [120/2] via 20.1.1.3
```

Refer to the exhibit. Router R1 is running three different routing protocols. Which route characteristic is used by the router to forward the packet that destination IP 172.16.32.1?

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

**Correct Answer:** A  
**Section:** (none)  
**Explanation**

**Explanation/Reference:**

**QUESTION 67**

```
R1#show ip interface brief
Interface          IP-Address      OK? Method Status Protocol
FastEthernet0/0    unassigned      YES NVRAM  administratively down  down
GigabitEthernet1/0 192.168.0.1     YES NVRAM  up      up
GigabitEthernet2/0 10.10.1.10      YES manual up      up
GigabitEthernet3/0 10.10.10.20     YES manual up      up
GigabitEthernet4/0 unassigned      YES NVRAM  administratively down  down
Loopback0          172.16.15.10    YES manual up      up
```

Refer to the exhibit. What does router R1 use as its OSPF router-ID?

- A. 172.16.15.10
- B. 192.168.0.1
- C. 10.10.1.10
- D. 10.10.10.20

**Correct Answer: A**

**Section: (none)**

**Explanation**

**Explanation/Reference:**

**QUESTION 68**

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

Refer to the exhibit. The show ip ospf interface command has been executed on R1. How is OSPF configured?

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

**Correct Answer: B**

**Section: (none)**

**Explanation**

**Explanation/Reference:**

**QUESTION 69**

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

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

**Correct Answer:** A

**Section:** (none)

**Explanation**

**Explanation/Reference:**

#### QUESTION 70

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

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

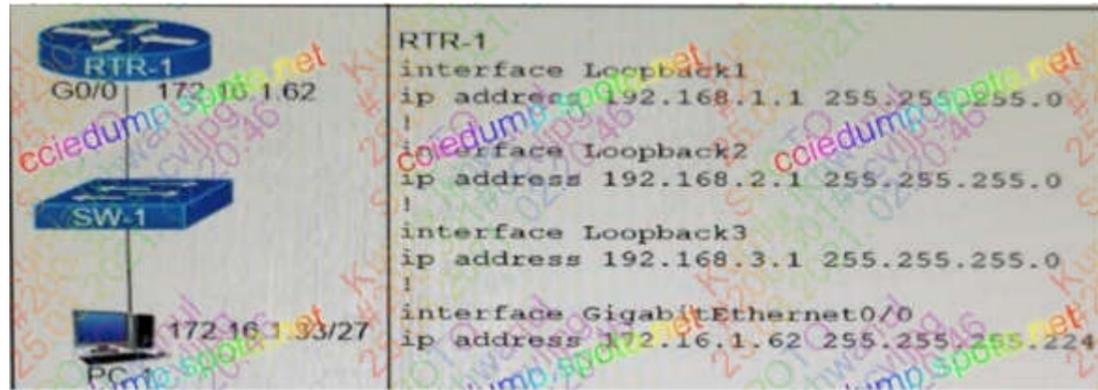
**Correct Answer:** B

**Section:** (none)

**Explanation**

**Explanation/Reference:**

#### QUESTION 71



Refer to the exhibit. Which configuration on RTR-1 denies SSH access from PC-1 to any RTR-1 interface and allows all other traffic?

- A. access-list 100 deny tcp host 172.161.33 any eq 23  
access-list 100 permit ip any any  
  
line vty 0 15  
access-class 100 in
- B. access-list 100 deny tcp host 172.16.1.33 any eq 22  
access-list 100 permit ip any any  
  
interface GigabitEthernet0/0  
ip access-group 100 in
- C. access-list 100 deny tcp host 172.16.1.33 any eq 23  
access-list 100 permit ip any any  
  
interface GigabitEthernet0/0  
ip access-group 100 in

D. access-list 100 deny tcp host 172.16.1.33 any eq 22  
access-list 100 permit ip any any

line vty 0 15  
acCess-class 100 in

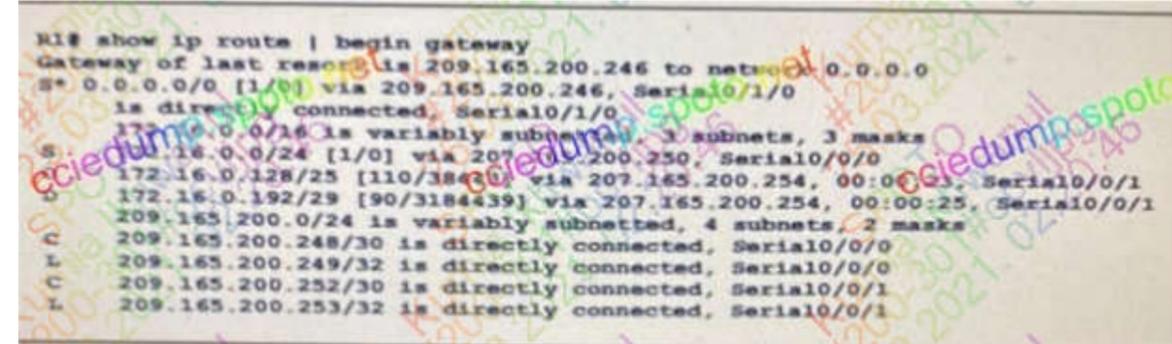
**Correct Answer:** D

**Section:** (none)

**Explanation**

**Explanation/Reference:**

#### QUESTION 72



```
RI# 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
S 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
   S 172.16.0.128/25 [110/318439] via 207.165.200.254, 00:00:25, Serial0/0/1
   S 172.16.0.192/29 [90/318439] via 207.165.200.254, 00:00:25, Serial0/0/1
C 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
```

Refer to the exhibit. With which metric was the route to host 172.16.0.202 learned?

- A. 38443
- B. 0
- C. 110
- D. 3184439

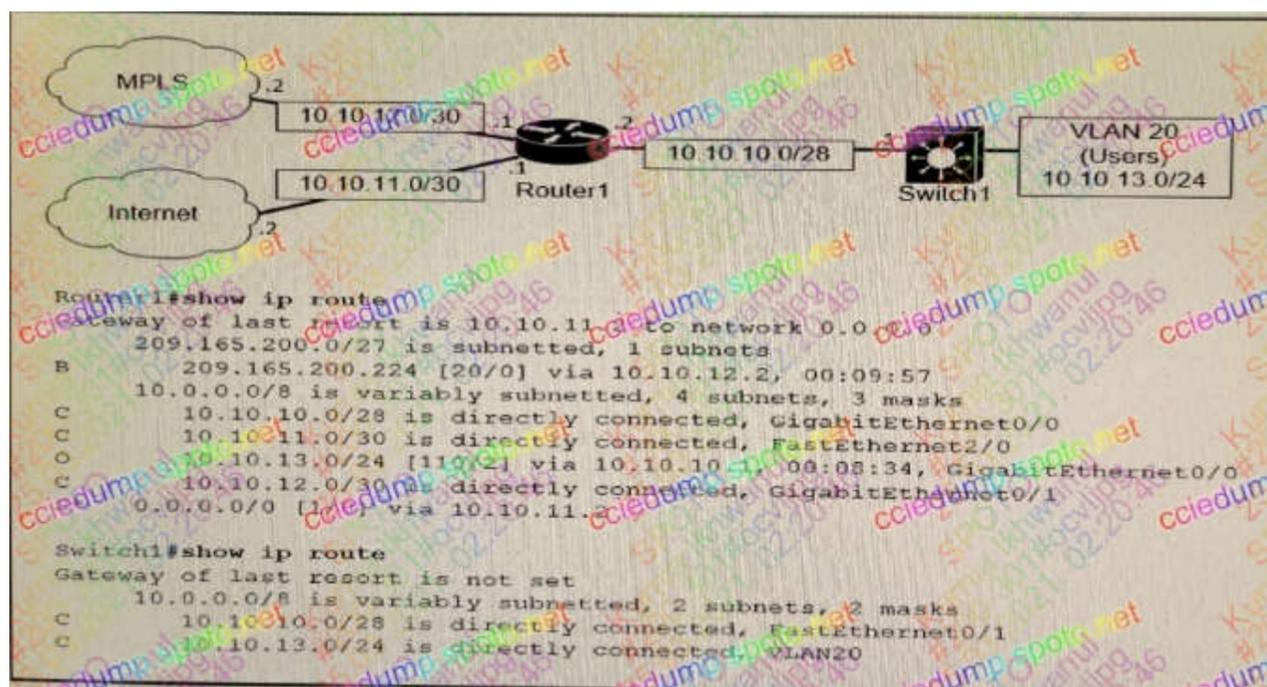
**Correct Answer:** A

**Section:** (none)

**Explanation**

**Explanation/Reference:**

#### QUESTION 73



Refer to the exhibit. Which prefix does Router1 use for traffic to Host A?

- A. 10.10.13.0/25
- B. 10.10.13.208/29
- C. 10.10.13.144/28
- D. 10.10.10.0/28

**Correct Answer: B**  
**Section: (none)**  
**Explanation**

**Explanation/Reference:**

**QUESTION 74**



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

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

**Correct Answer: BC**

Section: (none)

Explanation

Explanation/Reference:

**QUESTION 75**

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

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

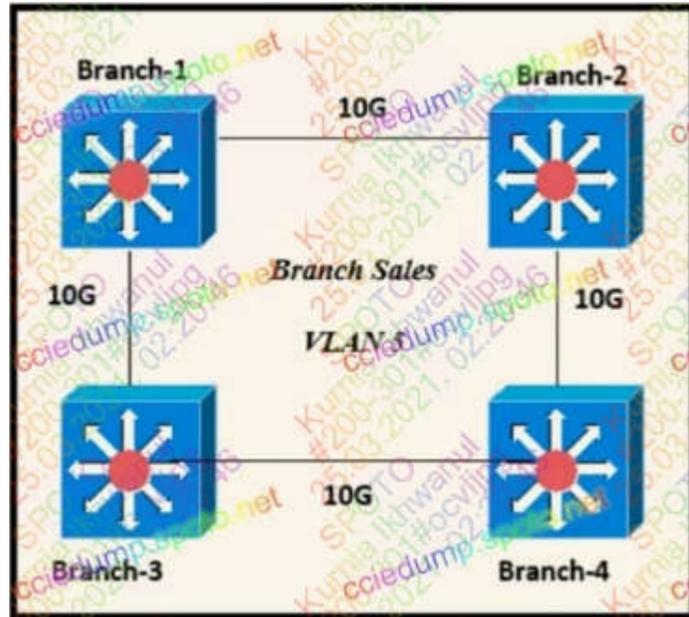
Correct Answer: B

Section: (none)

Explanation

Explanation/Reference:

**QUESTION 76**



Refer to the exhibit. Only four switches are participating in the VLAN spanning-tree process.

- Branch-1: priority 614440
- Branch-2: priority 3XXXXXX
- 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

Correct Answer: C

Section: (none)

Explanation

**Explanation/Reference:**

**QUESTION 77**

Which technology can prevent client devices from arbitrarily connecting to the network without state remediation?

- A. MAC Authentication Bypass
- B. 802.1x
- C. IP Source Guard
- D. 802.11n

**Correct Answer: B**

**Section: (none)**

**Explanation**

**Explanation/Reference:**

**QUESTION 78**

How does the dynamically-learned MAC address feature function?

- A. It requires a minimum number of secure MAC addresses to be filled dynamically
- B. Switches dynamically learn MAC addresses of each connecting CAM table
- C. The ports are restricted and learn up to a maximum of 10 dynamically-learned addresses
- D. The CAM table is empty until ingress traffic arrives at each port

**Correct Answer: D**

**Section: (none)**

**Explanation**

**Explanation/Reference:**

**QUESTION 79**

Which JSON data type is an unordered set of attribute-value pairs?

- A. Object
- B. String
- C. Boolean
- D. Array

**Correct Answer: A**

**Section: (none)**

**Explanation**

**Explanation/Reference:**

**QUESTION 80**

An engineer needs to add an old switch back into a network. To prevent the switch from corrupting the VLAN database, which action must be taken?

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

**Correct Answer: B**

**Section: (none)**

**Explanation**

**Explanation/Reference:**

**QUESTION 81**

Which networking function occurs on the data plane?

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

**Correct Answer: C**

**Section: (none)**

**Explanation**

**Explanation/Reference:**

**QUESTION 82**

When deploying syslog, which severity level logs informational messages?

- A. 6
- B. 4
- C. 0
- D. 2

**Correct Answer: A**

**Section: (none)**

**Explanation**

**Explanation/Reference:**

**QUESTION 83**

What is a characteristic of RSA?

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

**Correct Answer: C**

**Section: (none)**

**Explanation**

**Explanation/Reference:**

**QUESTION 84**

```
SW1#show spanning-tree vlan 30
VLAN0030
Spanning tree enabled protocol rstp
Root ID      Priority      32798
Address      0025.63e9.c800
Cost         19
Port         1 (FastEthernet 2/1)
Hello Time   2 sec
Max Age      20 sec
Forward Delay 20 sec

[Output suppressed]
```

Refer to the exhibit. What two conclusions should be made about this configuration? (Choose two.)

- A. The designated port is FastEthernet 2/1.
- B. The spanning-tree mode is PVST+
- C. The spanning-tree mode is Rapid PVST+.
- D. This is a root bridge.
- E. The root port is FastEthernet 2/1.

**Correct Answer:** CE

**Section:** (none)

**Explanation**

**Explanation/Reference:**

**QUESTION 85**

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

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

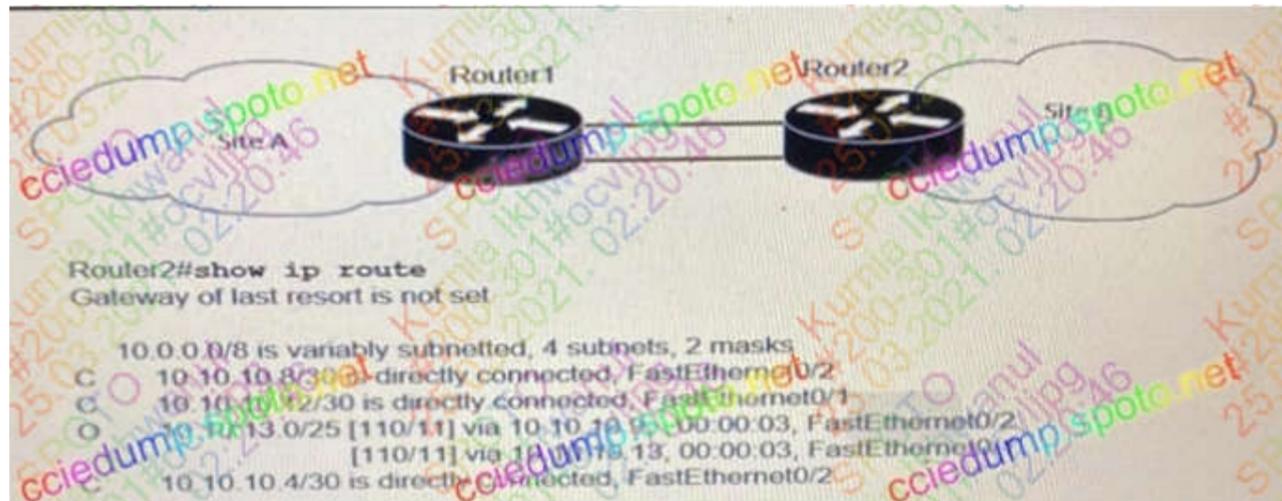
**Correct Answer:** B

**Section:** (none)

**Explanation**

**Explanation/Reference:**

**QUESTION 86**



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

**Correct Answer:** D

**Section:** (none)

**Explanation**

**Explanation/Reference:**

#### QUESTION 87

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

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

**Correct Answer:** A

**Section:** (none)

**Explanation**

**Explanation/Reference:**

#### QUESTION 88

Which occurs when PortFast is enabled on an interface that is connected to another switch?

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

**Correct Answer:** C

**Section:** (none)

**Explanation**

**Explanation/Reference:**

**QUESTION 89**

Which function does an SNMP agent perform?

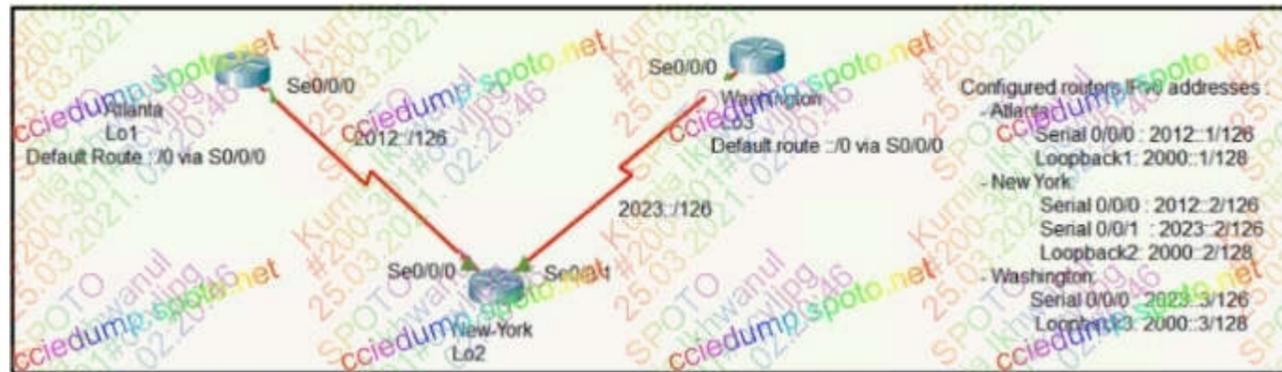
- A. It manages routing between Layer 3 devices in a network.
- B. It requests information from remote network nodes about catastrophic system events
- C. It sends information about MIB variables in response to requests from the NMS.
- D. It coordinates user authentication between a network device and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

**Correct Answer: C**

**Section: (none)**

**Explanation**

**Explanation/Reference:**

**QUESTION 90**

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

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

**Correct Answer: BD**

**Section: (none)**

**Explanation**

**Explanation/Reference:**

**QUESTION 91**

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

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

**Correct Answer: A**

**Section: (none)**

**Explanation**

**Explanation/Reference:**

**QUESTION 92**

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

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

**Correct Answer: B**

**Section: (none)**

**Explanation**

**Explanation/Reference:**

**QUESTION 93**

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

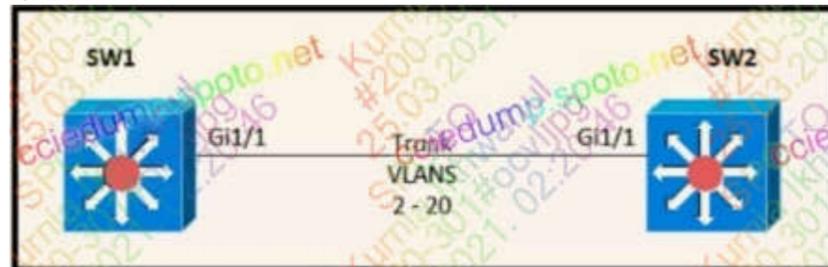
- A. OpenFlow
- B. OpenStack
- C. REST
- D. OpFlex

**Correct Answer: C**

**Section: (none)**

**Explanation**

**Explanation/Reference:**

**QUESTION 94**

Refer to the exhibit Which command must be executed for Gi1/1 on SW1 to become a trunk port if Gi1/1 on SW2 is configured in desirable or trunk mode?

- A. switchport mode dot1-tunnel
- B. switchport mode dynamic desirable
- C. switchport mode dynamic auto
- D. switchport mode trunk

**Correct Answer: C**

**Section: (none)**

**Explanation**

**Explanation/Reference:**

**QUESTION 95**

What is a role of access points in an enterprise network?

- A. support secure user logins to devices on the network

- B. serve as a first line of defense in an enterprise network
- C. connect wireless devices to a wired network
- D. integrate with SNMP in preventing DDoS attacks

**Correct Answer: C**

**Section: (none)**

**Explanation**

**Explanation/Reference:**

**QUESTION 96**

Which output displays a JSON data representation?

- A. 

```
{
  "response": {
    "taskId": {},
    "url": "string"
  }
  "version": "string"
}
```
- B. 

```
{
  "response": {
    "taskId": {},
    "url": "string"
  };
  "version": "string"
}
```
- C. 

```
{
  "response": {
    "taskId": {},
    "url": "string"
  },
  "version": "string"
}
```
- D. 

```
{
  "response", {
    "taskId", {}
    "url": "string"
  };
  "version", "string"
}
```

**Correct Answer: C**

**Section: (none)**

**Explanation**

**Explanation/Reference:**

**QUESTION 97**

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

**Correct Answer: C**

**Section: (none)**

**Explanation**

**Explanation/Reference:**

**QUESTION 98**

Which WPA3 enhancement protects against hackers viewing traffic on the Wi-Fi network?

- A. SAE encryption
- B. TKIP encryption
- C. AES encryption
- D. scrambled encryption key

**Correct Answer: A**

**Section: (none)**

**Explanation**

**Explanation/Reference:**

**QUESTION 99**

What are two recommendations for protecting network ports from being exploited when located in an office space outside of an IT closet? (Choose two.)

- A. configure static ARP entries
- B. shut down unused ports
- C. configure ports to a fixed speed
- D. implement port-based authentication
- E. enable the PortFast feature on ports

**Correct Answer: BD**

**Section: (none)**

**Explanation**

**Explanation/Reference:**

**QUESTION 100**

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

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

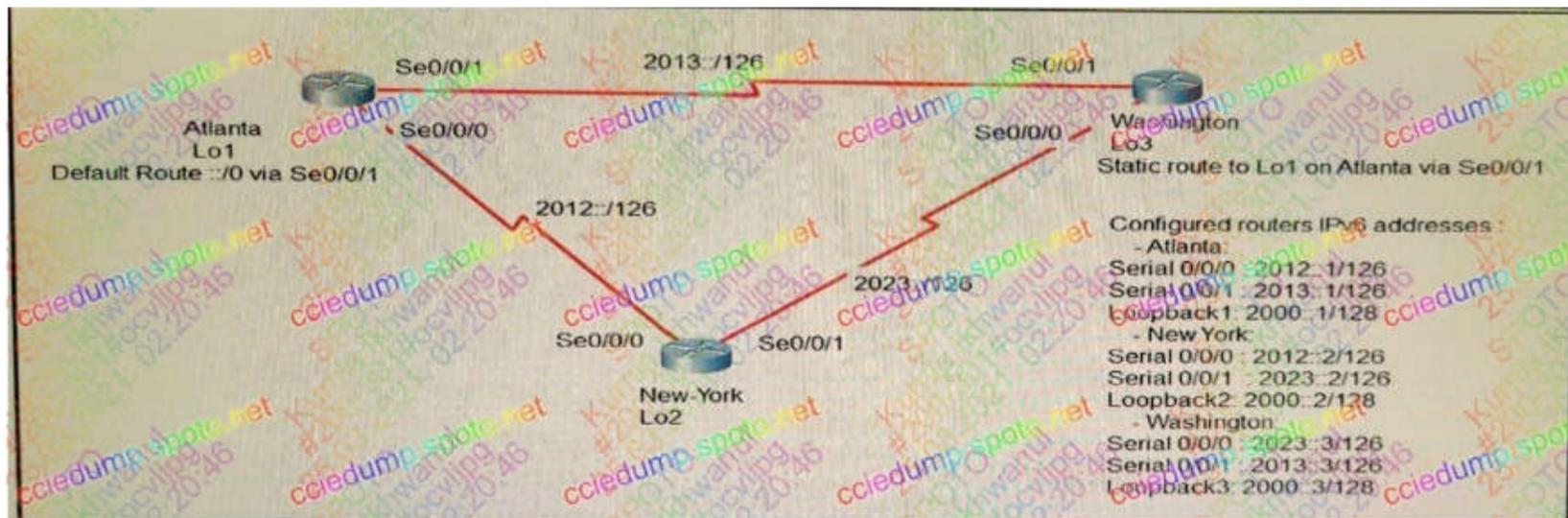
**Correct Answer: B**

**Section: (none)**

**Explanation**

**Explanation/Reference:**

**QUESTION 101**



Refer to the exhibit. An engineer is configuring the New York router to reach the Lo1 interface of the Atlanta router using interface Se0/0/0 as the primary path. Which two commands must be configured on the New York router so that it can reach the Lo1 interface of the Atlanta router via Washington when the link between New York and Atlanta goes down? (Choose two.)

- A. ipv6 route 2000::1/128 2012::2
- B. ipv6 route 2000::1/128 2023::2 5
- C. ipv6 route 2000::1/128 2012::1
- D. ipv6 route 2000::1/128 2023::3 5
- E. ipv6 route 2000::1/128 2012::1 5

**Correct Answer:** CD

**Section:** (none)

**Explanation**

**Explanation/Reference:**

**QUESTION 102**

```
SiteA#show interface TenGigabitEthernet0/1/0
TenGigabitEthernet0/1/0 is up, line protocol is up
Hardware is BUILT-IN-EPA-8x10G, address is 780c.f02a.db91 (bia 780a.f02b.db91)
Description: Connection to SiteB
Internet address is 10.10.10.1/30
MTU 8146 bytes, BW 10000000 Kbit/sec, DLY 10 usec,
  reliability 166/255, txload 1/255, rxload 1/255
Full Duplex, 10000Mbps, link type is force-up, media type is SFP-LR
5 minute input rate 264797000 bits/sec, 26672 packets/sec
5 minute output rate 122464000 bits/sec, 15724 packets/sec

SiteB#show interface TenGigabitEthernet0/1/0
TenGigabitEthernet0/1/0 is up, line protocol is up
Hardware is BUILT-IN-EPA-8x10G, address is 780c.f02c.db26 (bia 780c.f02c.db26)
Description: Connection to SiteA
Internet address is 10.10.10.2/30
MTU 8146 bytes, BW 10000000 Kbit/sec, DLY 10 usec,
  reliability 255/255, txload 1/255, rxload 1/255
Full Duplex, 10000Mbps, link type is force-up, media type is SFP-LR
5 minute input rate 122464000 bits/sec, 15724 packets/sec
5 minute output rate 264797000 bits/sec, 26672 packets/sec
```

Refer to the exhibit. Shortly after SiteA was connected to SiteB, over a new single-mode fiber path, users at SiteA report intermittent connectivity issues with applications hosted at SiteB. What is the cause of the intermittent connectivity issue?

- A. High usage is causing high latency.
- B. The sites were connected with the wrong cable type.
- C. An incorrect SFP media type was used at SiteA
- D. Interface errors are incrementing.

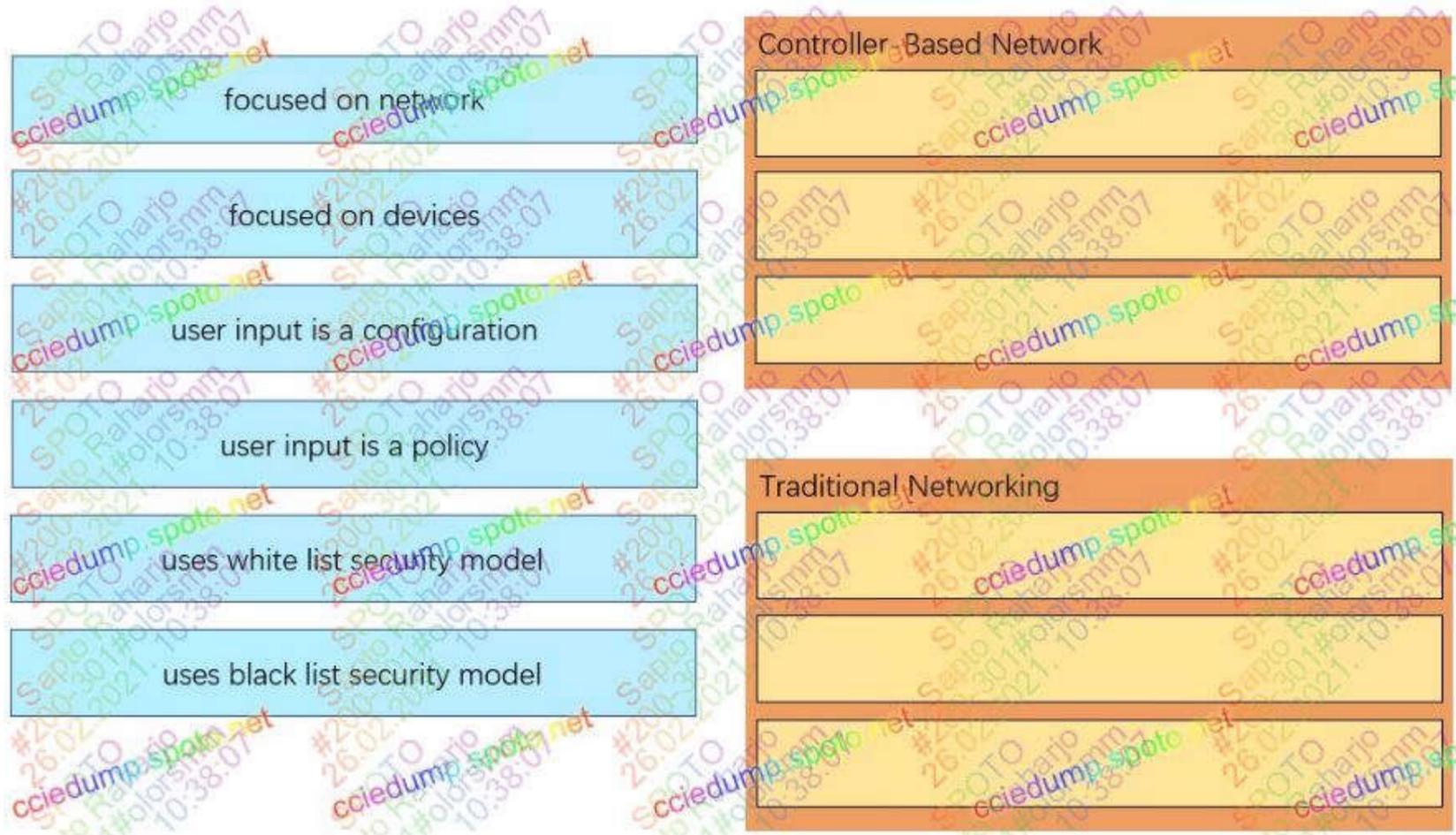
**Correct Answer:** D  
**Section:** (none)  
**Explanation**

**Explanation/Reference:**

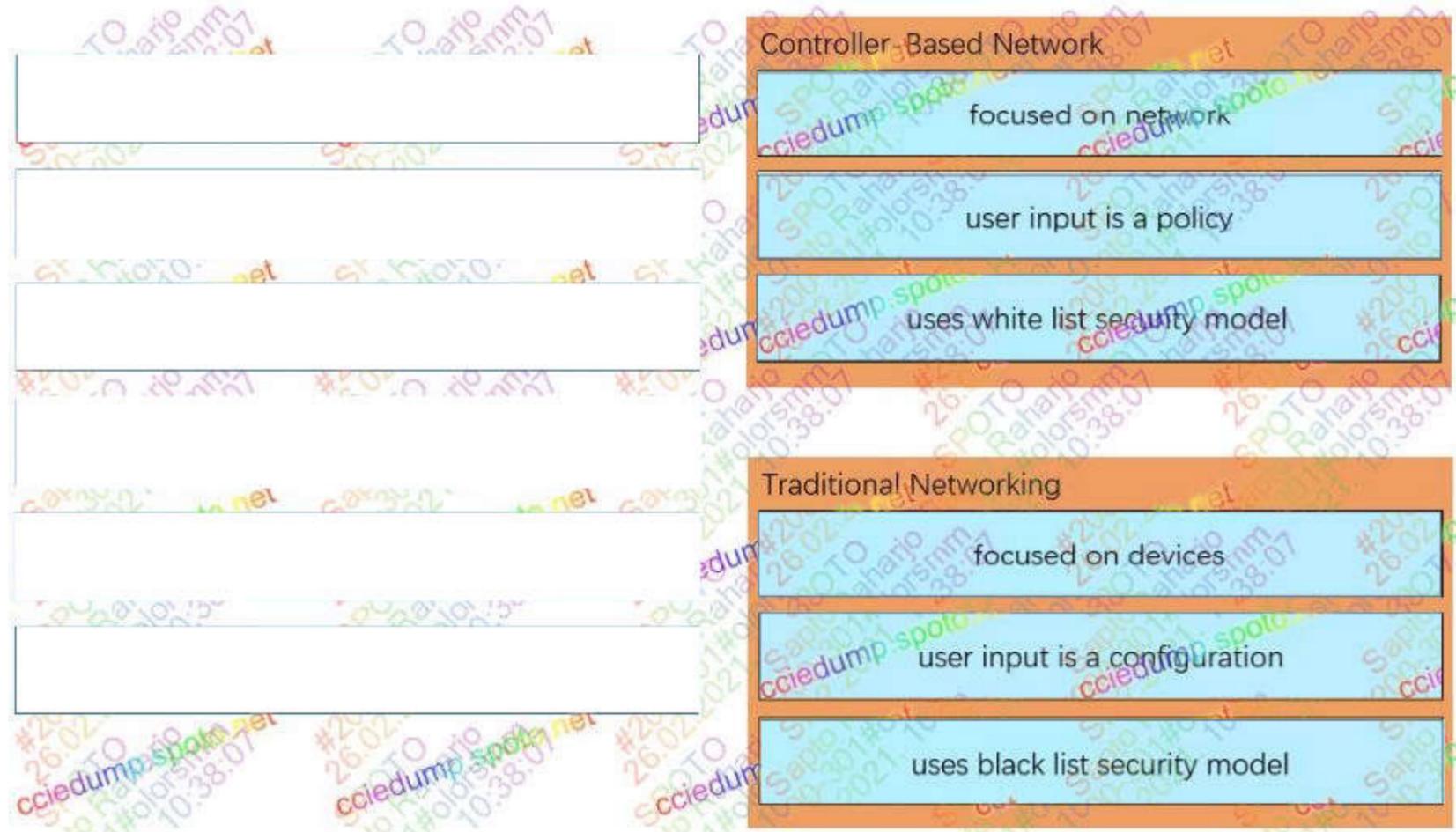
**QUESTION 103**

Drag and drop the characteristics of networking from the left onto the correct networking types on the right.

**Select and Place:**



Correct Answer:



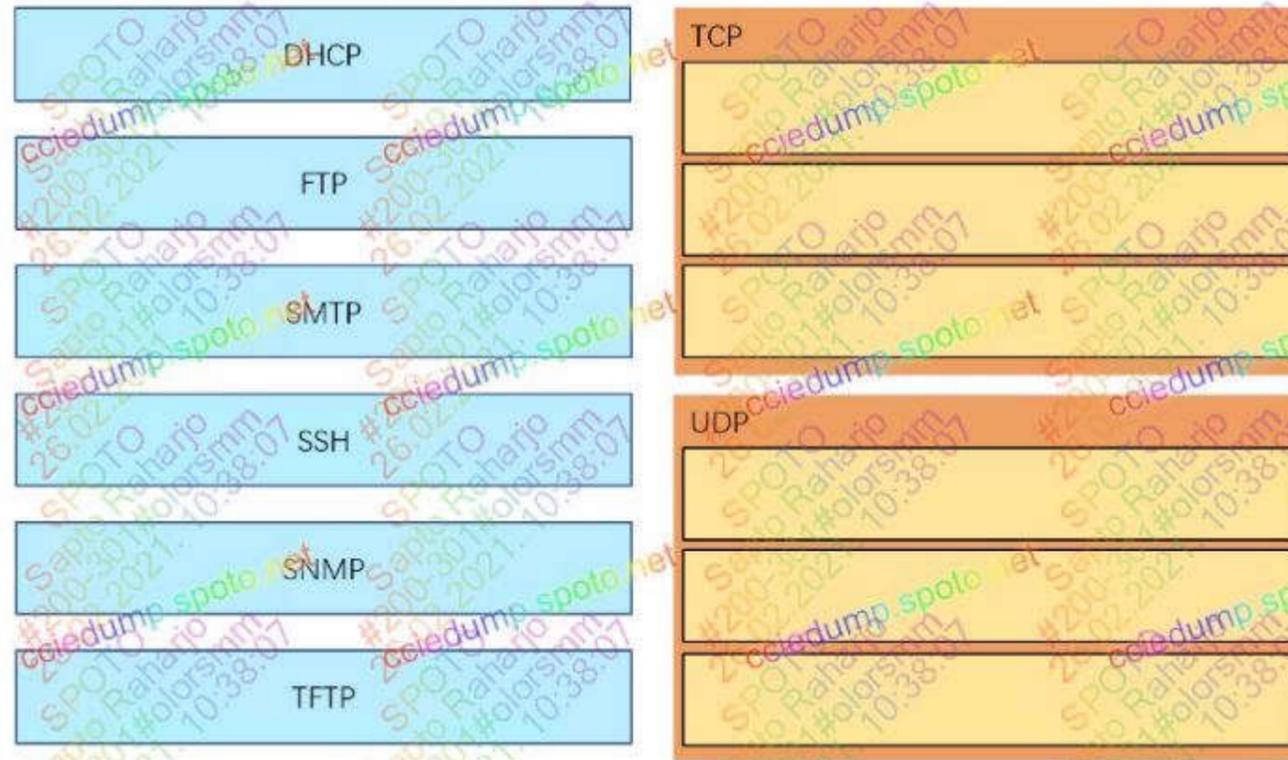
Section: (none)  
 Explanation

Explanation/Reference:

**QUESTION 104**

Drag and drop the application protocols from the left onto the transport protocols that it uses on the right.

Select and Place:



Correct Answer:



Section: (none)  
Explanation

Explanation/Reference:

**QUESTION 105**

Drag and drop the threat-mitigation techniques from the left onto the types of threat or attack they mitigate on the right.

Select and Place:

Configure BPDU guard.	802.1q double tagging
Configure dynamic ARP inspection.	ARP spoofing
Configure root guard	unwanted superior BRDUs
Configure VACL	unwanted BPDUs on PortFast-enabled interfaces

Correct Answer:

	Configure VACL
	Configure dynamic ARP inspection.
	Configure root guard
	Configure BPDU guard.

Section: (none)

Explanation

Explanation/Reference:

**QUESTION 106**

Drag and drop the IPv4 network subnets from the left onto the correct usable host ranges on the right.

Select and Place:

172.28.228.144/18	172.28.228.1-172.28.229.254
172.28.228.144/21	172.28.224.1-172.28.231.254
172.28.228.144/23	172.28.228.129-172.28.228.254
172.28.228.144/25	172.28.228.145-172.28.228.150
172.28.228.144/29	172.28.192.1-172.28.255.254

Correct Answer:

A drag-and-drop interface consisting of five empty rectangular boxes on the left side and five corresponding IP address ranges on the right side. The IP address ranges are: 172.28.228.144/23, 172.28.228.144/21, 172.28.228.144/25, 172.28.228.144/29, and 172.28.228.144/18.

Section: (none)  
Explanation

Explanation/Reference:

**QUESTION 107**

Drag and drop the Cisco Wireless LAN Controller security settings from the left onto the correct security mechanism categories on the right.

Select and Place:

A drag-and-drop interface with four security settings on the left and two categories on the right. The security settings are: web policy, Passthrough, WPA+WPA2, and 802.1X. The categories are: Layer 2 Security Mechanisms and Layer 3 Security Mechanisms.

Correct Answer:

	Layer 2 Security Mechanisms
	WPA+WPA2
	802.1X
	Layer 3 Security Mechanisms
	web policy
	Passthrough

Section: (none)  
Explanation

Explanation/Reference:

QUESTION 108

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

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

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

Select and Place:

Default gateway	00.0c.22
Host IP address	00.0c.22.83.79.a3
NIC MAC address	192.168.1.193
NIC vendor OUI	192.168.1.200
Subnet mask	255.255.255.192

Correct Answer:

	NIC vendor OUI
	NIC MAC address
	Default gateway
	Host IP address
	Subnet mask

Section: (none)  
Explanation

Explanation/Reference:

QUESTION 109

```

interface Ethernet0
  A
  B
interface Serial 0
  C
  D
  E
  F
access-list 1 permit 172.16.1.0 0.0.0.255
  
```

Refer to the exhibit. An engineer is configuring the router to provide static NAT for the webserver. Drag and drop the configuration commands from the left onto the letters that correspond to its position in the configuration on the right.

Select and Place:

ip address 172.16.1.1 255.255.255.0	Position A
ip address 45.83.2.214 255.255.255.240	Position B
ip nat inside	Position C
ip nat inside source list 1 interface s0 overload	Position D
ip nat inside source static tcp 172.16.1.2 80 45.83.2.214 80 extendable	Position E
ip nat outside	Position F

Correct Answer:

	ip address 172.16.1.1 255.255.255.0
	ip nat inside
	ip address 45.83.2.214 255.255.255.240
	ip nat outside
	ip nat inside source static tcp 172.16.1.2 80 45.83.2.214 80 extendable
	ip nat inside source list 1 interface s0 overload

Section: (none)

Explanation

Explanation/Reference: