

Cisco

Exam Questions 200-301

Cisco Certified Network Associate



NEW QUESTION 1

- (Topic 3)

Refer to the exhibit.

```
Switch2# show lldp
Global LLDP Information
  Status: ACTIVE
  LLDP advertisements are sent every 30 seconds
  LLDP hold time advertised is 120 seconds
  LLDP interface reinitialization delay is 2 seconds
```

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 2

- (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 3

- (Topic 2)

An engineer requires a switch 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 4

- (Topic 2)

Refer to the exhibit.

```
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
S      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
```

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

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

Answer: D

NEW QUESTION 5

- (Topic 2)

Which command must be entered to configure a DHCP relay?

- A. ip helper-address
- B. ip address dhcp
- C. ip dhcp pool
- D. ip dhcp relay

Answer: A

NEW QUESTION 6

- (Topic 2)

Refer to the exhibit.

```
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
```

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?

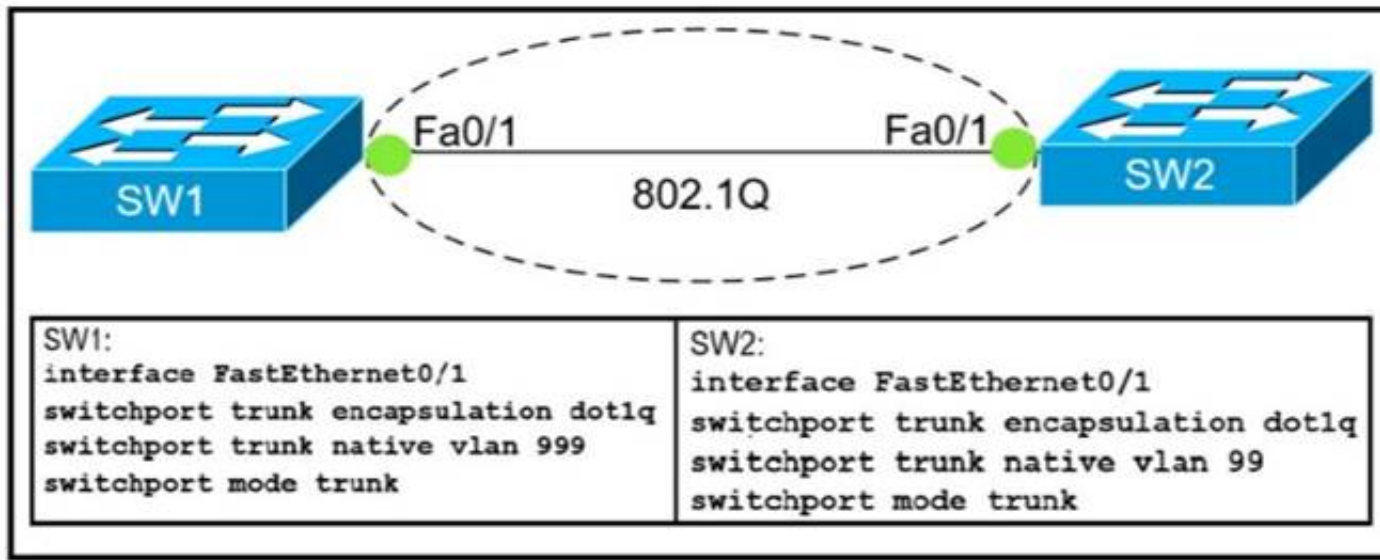
- A. Interface errors are incrementing
- B. An incorrect SFP media type was used at SiteA
- C. High usage is causing high latency
- D. The sites were connected with the wrong cable type

Answer: A

NEW QUESTION 7

- (Topic 2)

Refer to Exhibit.



Which action do the switches take on the trunk link?

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

Answer: B

Explanation:

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

NEW QUESTION 8

- (Topic 2)

What is the primary function of a Layer 3 device?

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

Answer: C

NEW QUESTION 9

- (Topic 2)

The SW1 interface g0/1 is in the down/down state. Which two configurations are valid reasons for the interface conditions?(choose two)

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

Answer: BE

NEW QUESTION 10

- (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 11

- (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 12

- (Topic 1)

Which two encoding methods are supported by REST APIs? (Choose two)

- A. YAML
- B. JSON
- C. EBCDIC
- D. SGML
- E. XML

Answer: BE

Explanation:

https://www.cisco.com/c/en/us/td/docs/switches/datacenter/aci/apic/sw/2-x/rest_cfg/2_1_x/b_Cisco_APIC_REST_API_Configuration_Guide/b_Cisco_APIC_REST_API_Configuration_Guide_chapter_01.html

Reference:

https://www.cisco.com/c/en/us/td/docs/switches/datacenter/nexus1000/sw/5_x/rest_api_config/b_Cisco_N1KV_VMware_REST_API_Config_5x/b_Cisco_N1KV_VMware_REST_API_Config_5x_chapter_010.pdf

The Application Policy Infrastructure Controller (APIC) REST API is a programmatic interface that uses REST architecture. The API accepts and returns HTTP (not enabled by default) or HTTPS messages that contain JavaScript Object Notation (JSON) or Extensible Markup Language (XML) documents.

NEW QUESTION 13

- (Topic 1)

Which level of severity must be set to get informational syslogs?

- A. alert
- B. critical
- C. notice
- D. debug

Answer: C

NEW QUESTION 14

- (Topic 1)

When configuring IPv6 on an interface, which two IPv6 multicast groups are joined? (Choose two)

- A. 2000::/3
- B. 2002::5
- C. FC00::/7
- D. FF02::1
- E. FF02::2

Answer: DE

Explanation:

Reference:

<https://www.cisco.com/c/en/us/td/docs/ios-xml/ios/ipv6/configuration/xe-3s/ipv6-xe-36s-book/ip6-multicast.html>

When an interface is configured with IPv6 address, it automatically joins the all nodes (FF02::1) and solicited-node (FF02::1:FFxx:xxxx) multicast groups. The all-node group is used to communicate with all interfaces on the local link, and the solicited-nodes multicast group is required for link-layer address resolution. Routers also join a third multicast group, the all-routers group (FF02::2).

NEW QUESTION 15

- (Topic 1)

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

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

Answer: BD

NEW QUESTION 16

- (Topic 1)

A manager asks a network engineer to advise which cloud service models are used so employees do not have to waste their time installing, managing, and updating software which is only used occasionally. Which cloud service model does the engineer recommend?

- A. infrastructure-as-a-service
- B. platform-as-a-service
- C. business process as service to support different types of service
- D. software-as-a-service

Answer: D

NEW QUESTION 17

- (Topic 1)

Which type of address is the public IP address of a NAT device?

- A. outside global
- B. outsdwde local
- C. inside global
- D. insride local
- E. outside public
- F. inside public

Answer: C

Explanation:

NAT use four types of addresses:* Inside local address – The IP address assigned to a host on the inside network. The address is usually not an IP address assigned by the Internet Network Information Center (InterNIC) or service provider.This address is likely to be an RFC 1918 private address.* Inside global address – A legitimate IP address assigned by the InterNIC or service provider that represents one or more inside local IP addresses to the outside world.* Outside local address – The IP address of an outside host as it is known to the hosts on the inside network.* Outside global address – The IP address assigned to a host on the outside network. The owner of the host assigns this address.

NEW QUESTION 18

- (Topic 1)

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

- A. Filter traffic based on destination IP addressing
- B. Sends the default route to the hosts on a network
- C. ensures a loop-free physical topology
- D. forwards multicast hello messages between routers

Answer: D

Explanation:

FHRP is layer 3 protocol whose purpose is to protect the default gateway by offering redundancy of the gateway in a subnet. This is achieved by allowing two or more routers to provide a backup for the first-hop IP router address. If a failure of an active router occurs, the backup router will take over the address. The routers negotiate their roles (Active/Standby) with each other by multicast hello messages to share the VIP (virtual IP address) between the FHRP routers. The terms Active/Standby vary between the different types of FHRP. The active router will act as the default gateway and the standby router acts as a backup the active router.

NEW QUESTION 19

SIMULATION - (Topic 5)

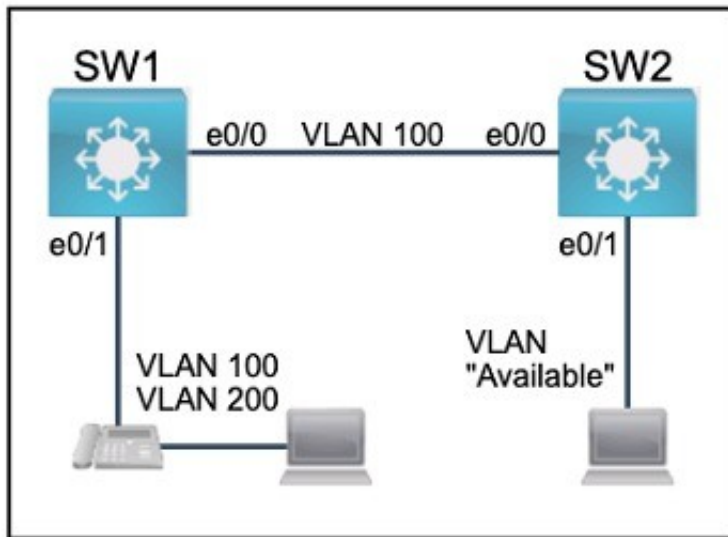
Guidelines

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.



Solution:

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

Does this meet the goal?

A. Yes

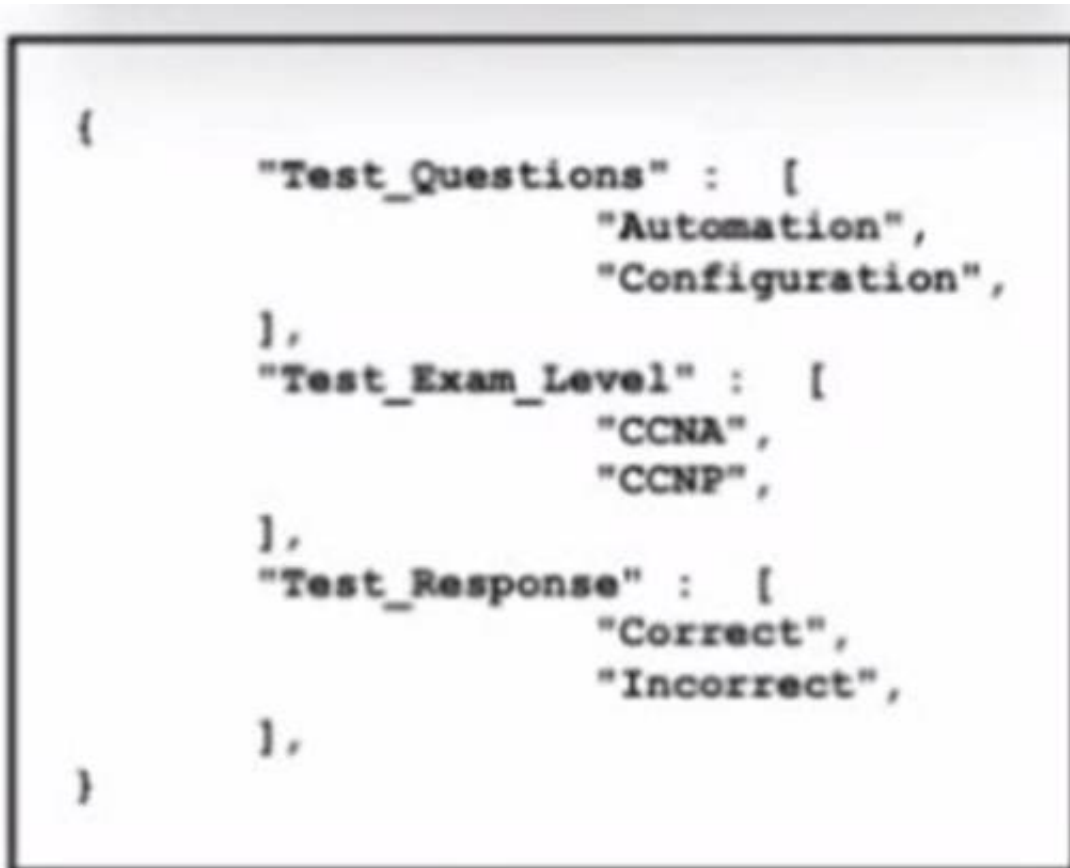
B. No

Answer: A

NEW QUESTION 20

- (Topic 4)

Refer to the exhibit.



How many objects, Keys and JSON list values are present?

A. three objects, two Keys, and three JSON list values

B. three objects, three keys and two JSON MI values

C. one object, three keys, and three JSON list values

D. one object, three keys and two JSON list values

Answer: C

NEW QUESTION 21

- (Topic 4)

Which cipher is supported for wireless encryption only with the WPA2 standard?

A. AES256

B. AES

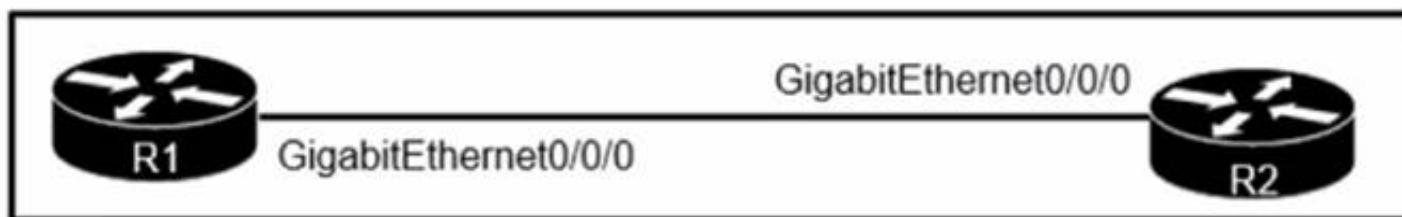
- C. RC4
- D. SHA

Answer: B

NEW QUESTION 22

- (Topic 4)

Refer to the exhibit.



A network engineer must configure the link with these requirements:

- Consume as few IP addresses as possible.
- Leave at least two additional useable IP addresses for future growth. Which set of configurations must be applied?

A)

```

R1(config-if)#ip address 10.10.10.1 255.255.255.252
R2(config-if)#ip address 10.10.10.2 255.255.255.252
  
```

B)

```

R1(config-if)#ip address 10.10.10.1 255.255.255.248
R2(config-if)#ip address 10.10.10.4 255.255.255.248
  
```

C)

```

R1(config-if)#ip address 10.10.10.1 255.255.255.0
R2(config-if)#ip address 10.10.10.5 255.255.255.0
  
```

D)

```

R1(config-if)#ip address 10.10.10.1 255.255.255.240
R2(config-if)#ip address 10.10.10.12 255.255.255.240
  
```

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

Answer: B

Explanation:

We have to configure the link which will need 2 IP addresses, 1 for each port on each Router. We also need 2 spare IPs for future growth, so overall we need 4 usable IP addresses. If we consider using the /30 (255.255.255.252) mask, it will give us $2^2 (=4)$ i.e., total 4 IPs and 2 usable IPs, which doesn't fulfil the given requirements. So, we can consider using the next /29 (255.255.255.248) mask, which gives us $2^3 (=8)$ i.e., total 8 IP address and 6 usable IP addresses, which perfectly fulfil the given requirements.

NEW QUESTION 23

- (Topic 4)

Refer to the exhibit.


```
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        30 sec
           Forward Delay  20 sec

[Output suppressed]
```

What are two conclusions about this configuration? {Choose two.}

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

Answer: A

NEW QUESTION 24

- (Topic 4)

Refer to the exhibit. A multivendor network exists and the company is implementing VoIP over the network for the first time.

A)

```
SW1(config)#no cdp enable
SW1(config)#interface gigabitethernet1/0/1
SW1(config-if)#cdp run
```

B)

```
SW1(config)#lldp enable
SW1(config)#interface gigabitethernet1/0/1
SW1(config-if)#lldp run
```

C)

```
SW1(config)#lldp run
SW1(config)#interface gigabitethernet1/0/1
SW1(config-if)#lldp enable
```

D)

```
SW1(config)#no cdp run
SW1(config)#interface gigabitethernet1/0/1
SW1(config-if)#lldp transmit
SW1(config-if)#lldp receive
```

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

Answer: B

NEW QUESTION 25

- (Topic 4)

A Cisco engineer notices that two OSPF neighbors are connected using a crossover Ethernet cable. The neighbors are taking too long to become fully adjacent. Which command must be issued under the interface configuration on each router to reduce the time required for the adjacency to reach the FULL state?

- A. ip ospf network broadcast
- B. ip ospf dead-interval 40
- C. ip ospf network point-to-point
- D. ip ospf priority 0

Answer: C

NEW QUESTION 26

- (Topic 4)

What is the role of community strings in SNMP operations?

- A. It serves as a sequence tag on SNMP traffic messages.
- B. It serves as a password to protect access to MIB objects.
- C. It passes the Active Directory username and password that are required for device access
- D. It translates alphanumeric MIB output values to numeric values.

Answer: B

NEW QUESTION 27

- (Topic 4)

What is a purpose of traffic shaping?

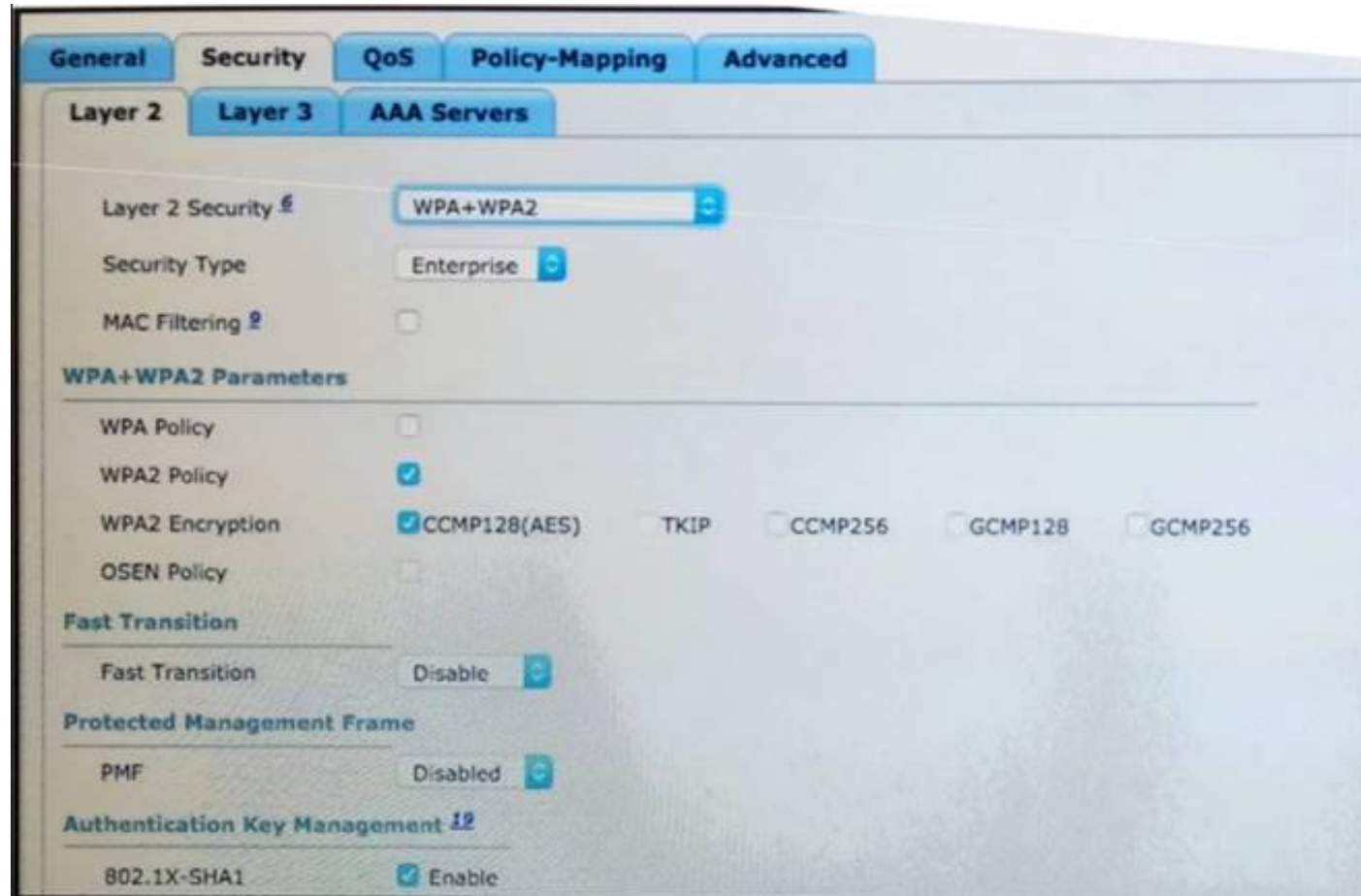
- A. It enables dynamic flow identification.
- B. It enables policy-based routing.
- C. It provides best-effort service.
- D. It limits bandwidth usage.

Answer: A

NEW QUESTION 28

- (Topic 4)

Refer to the exhibit.



What must be configured to enable 802.11w on the WLAN?

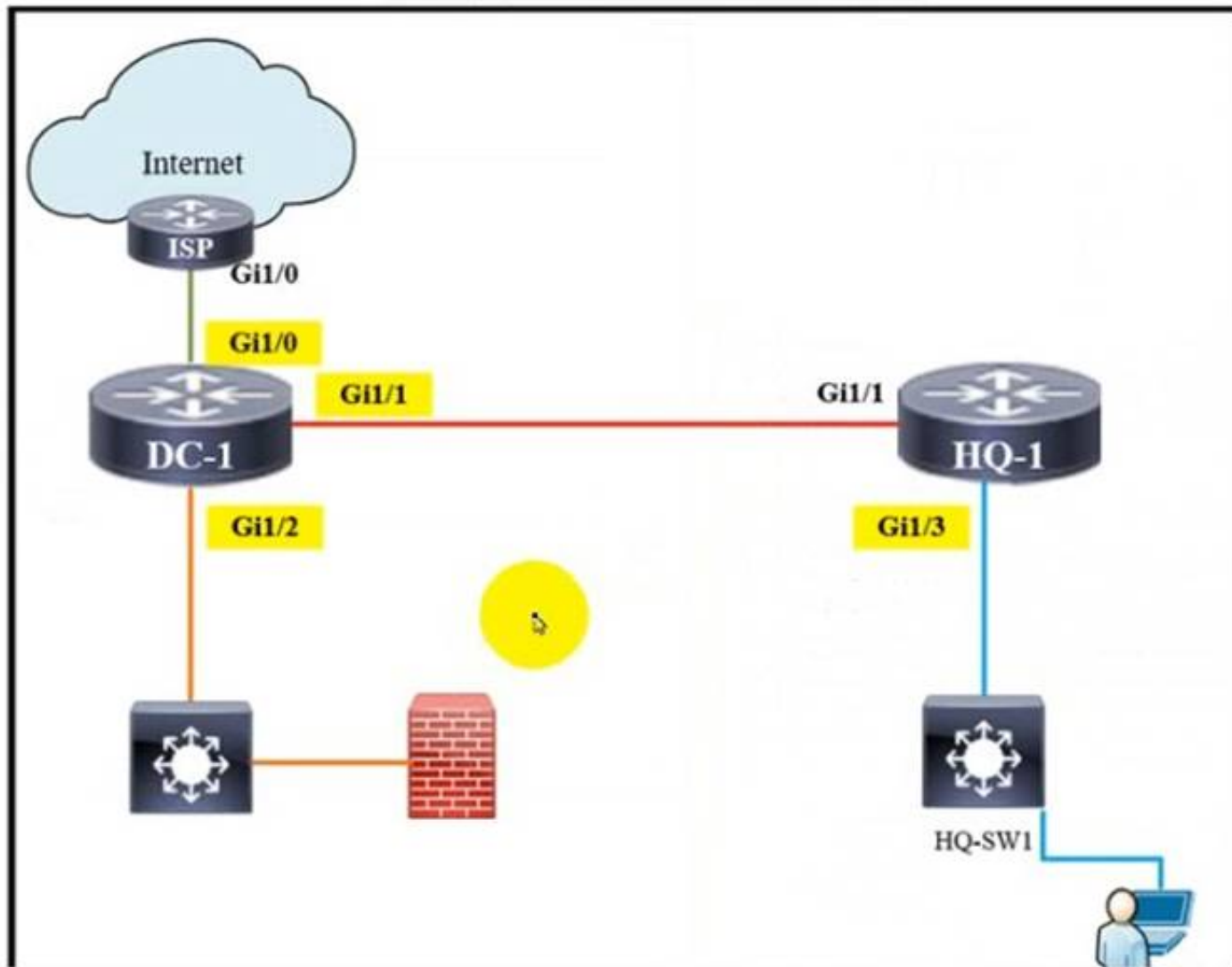
- A. Set PMF to Required.
- B. Enable MAC Filtering.
- C. Enable WPA Policy.
- D. Set Fast Transition to Enabled

Answer: A

NEW QUESTION 29

DRAG DROP - (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 Gi1/3 must be the last usable address on a /28
 Drag and drop the commands from the left onto the destination interfaces on the right. Not all commands are used

ip address 192.168.4.9 255.255.255.248	DC-1	Gi1/0
ip address 192.168.3.14 255.255.255.240		Gi1/1
ip address 209.165.202.129 255.255.255.252		Gi1/2
ip address 192.168.4.13 255.255.255.240	HQ-1	Gi1/3
ip address 209.165.202.130 255.255.255.252		
ip address 209.165.202.131 255.255.255.252		
ip address 192.168.3.14 255.255.255.248		

Solution:

ip address 192.168.4.9 255.255.255.248	DC-1	ip address 209.165.202.130 255.255.255.252
ip address 192.168.3.14 255.255.255.240		ip address 192.168.4.9 255.255.255.248
ip address 209.165.202.129 255.255.255.252		ip address 192.168.3.14 255.255.255.240
ip address 192.168.4.13 255.255.255.240	HQ-1	
ip address 209.165.202.130 255.255.255.252		ip address 192.168.3.14 255.255.255.248
ip address 209.165.202.131 255.255.255.252		
ip address 192.168.3.14 255.255.255.248		

Does this meet the goal?

- A. Yes
- B. No

Answer: A

NEW QUESTION 30

FILL IN THE BLANK - (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.

Solution:

Chart, bar chart Description automatically generated

Does this meet the goal?

- A. Yes
- B. No

Answer: A

NEW QUESTION 31

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