Exam Code: 350-401
Exam Name: Implementing Cisco Enterprise Network Core Technologies (ENCOR)

QUESTION 1
What is a benefit of Type 1 hypervisors?

A. Administrators are able to load portable virtual machine packages in OVA or QCOW2 formats.

B. Network engineers are able to create virtual networks o interconnect virtual machines in Layer 2 topologies

C. Operators are able to leverage orchestrators to manage workloads that run on multiple Type 1 hypervisors

D. Storage engineers are able to leverage VMDK files to provide storage to virtual machine.

Correct Answer: B
Section:

QUESTION 2
What is the wireless received signal strength indicator?

A. The value given to the strength of the wireless signal received compared to the noise level

B. The value of how strong the wireless signal Is leaving the antenna using transmit power, cable loss, and antenna gain

C. The value of how much wireless signal is lost over a defined amount of distance

D. The value of how strong a tireless signal is receded, measured in dBm

Correct Answer: D
Section:
Explanation:
RSSI, or "Received Signal Strength Indicator," is a measurement of how well your device can hear a signal from an access point or router. It's a value that is useful for determining if you have enough signal to get a good wireless connection.
This value is measured in decibels (dBm) from 0 (zero) to -120 (minus 120). The closer to 0 (zero) the stronger the signal is which means it's better, typically voice networks require a -65db or better signal level while a data network needs - 80db or better.

QUESTION 3
Which technology is used as the basis for the cisco sd-access data plane?

A. IPsec

B. LISP

C. VXLAN

D. 802.1Q

Correct Answer: C
Section:
Explanation:
A virtual network identifier (VNI) is a value that identifies a specific virtual network in the data plane.

QUESTION 4
What is YANG used for?

A. scraping data via CLI

B. processing SNMP read-only polls

C. describing data models

D. providing a transport for network configuration data between client and server

Correct Answer: C
Section:

QUESTION 5
Which method does Cisco DNA Center use to allow management of non-Cisco devices through southbound protocols?

A. It creates device packs through the use of an SDK

B. It uses an API call to interrogate the devices and register the returned data.

C. It obtains MIBs from each vendor that details the APIs available.

D. It imports available APIs for the non-Cisco device in a CSV format.

Correct Answer: A
Section:
Explanation:
Cisco DNA Center allows customers to manage their non-Cisco devices through the use of a Software Development Kit (SDK) that can be used to create Device Packages for third-party devices.
Reference: https://developer.cisco.com/docs/dna-center/#!cisco-dna-center-platformoverview/multivendor-support-southbound

QUESTION 6
A network is being migrated from IPV4 to IPV6 using a dual-stack approach. Network management is already 100% IPV6 enabled. In a dual-stack network with two dual-stack NetFlow collections, how many flow exporters are needed per network device in the flexible NetFlow configuration?

A. 1

B. 2

C. 4

D. 8

Correct Answer: B
Section:

QUESTION 7
What are two considerations when using SSO as a network redundancy feature? (Choose two)

A. both supervisors must be configured separately

B. the multicast state is preserved during switchover

C. must be combined with NSF to support uninterrupted Layer 2 operations

D. must be combined with NSF to support uninterrupted Layer 3 operations

E. requires synchronization between supervisors in order to guarantee continuous connectivity

Correct Answer: D, E
Section:
Explanation:
Cisco IOS Nonstop Forwarding(NSF) always runs with stateful switchover (SSO) and provides redundancy for Layer 3 traffic.

Reference:
https://www.cisco.com/en/US/docs/switches/lan/catalyst3850/software/release/3se/consolidated_guide/b_consolidated_3850_3se_cg_chapter_01101110.pdf

QUESTION 8

```
<rpc-reply> [0, 1] required
   <ok> [0, 1] required
   <data> [0, 1] required
   <rpc-error> [0, 1] required
    <error-type> [0, 1] required
    <error-tag> [0, 1] required
    <error-severity> [0, 1] required
    <error-app-tag> [0, 1] required
    <error-path> [0, 1] required
    <error-message> [0, 1] required
    <error-info> [0, 1] required
     <bad-attribute> [0, 1] required
     <bad-element> [0, 1] required
     <ok-element> [0, 1] required
     <err-element> [0, 1] required
     <noop-element> [0, 1] required
     <bad-namespace> [0, 1] required
     <session-id> [0, 1] required
```

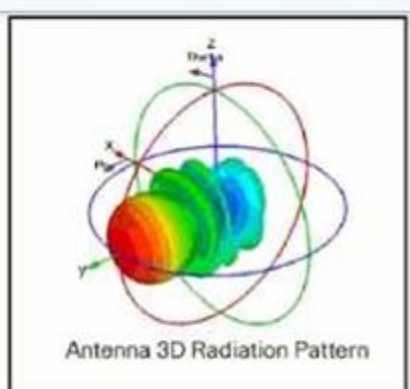Refer to the exhibit. Which command is required to verify NETCONF capability reply messages?

A. show netconf | section rpc-reply
B. show netconf rpc-reply
C. show netconf xml rpc-reply
D. show netconf schema | section rpc-reply

Correct Answer: D
Section:

QUESTION 9
Refer to the exhibit.

Antenna 3D Radiation Pattern

Which type of antenna does the radiation pattern represent?

A. Yagi
B. multidirectional
C. directional patch
D. omnidirectional

Correct Answer: A
Section:

QUESTION 10
Which new enhancement was implemented in Wi-Fi 6?

A. Wi-Fi Protected Access 3
B. 4096 Quadrature Amplitude Modulation Mode
C. Channel bonding
D. Uplink and Downlink Orthogonal Frequency Division Multiple Access

Correct Answer: D
Section:

QUESTION 11
Which cisco DNA center application is responsible for group-based accesss control permissions?

A. Design
B. Provision
C. Assurance
D. Policy

Correct Answer: D
Section:

QUESTION 12
Refer to the exhibit.

```
Person#1:
First Name is Johnny
Last Name is Table
Hobbies are:
• Running
• Video games


Person#2:
First Name is Billy
Last Name is Smith
Hobbies are:
• Napping
• Reading
```

Which JSON syntax is derived from this data?

A.

([{'First Name': 'Johnny', 'Last Name': 'Table', 'Hobbies': ['Running', 'Video games']}, {'First Name': 'Billy', 'Last Name': 'Smith', 'Hobbies': ['Napping', 'Reading']}]}

B.

{'Person': [{'First Name': 'Johnny', 'Last Name': 'Table', 'Hobbies': 'Running', 'Video games'}, {'First Name': 'Billy', 'Last Name': 'Smith', 'Hobbies': 'Napping', 'Reading'}]}

C.

{[{'First Name': 'Johnny', 'Last Name': 'Table', 'Hobbies': 'Running', 'Hobbies': 'Video games'}, {'First Name': 'Billy', 'Last Name': 'Smith', 'Hobbies': 'Napping', 'Hobbies': 'Reading'}]}
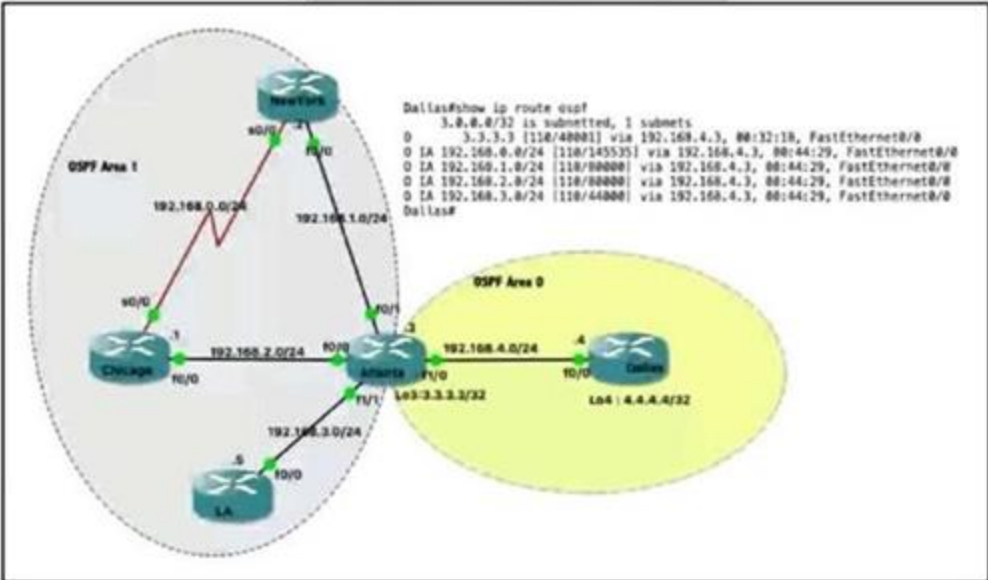
D.

{'Person': [{'First Name': 'Johnny', 'Last Name': 'Table', 'Hobbies': ['Running', 'Video games']}, {'First Name': 'Billy', 'Last Name': 'Smith', 'Hobbies': ['Napping', 'Reading']}]}

Correct Answer: D
Section:

QUESTION 13
Refer to the exhibit.

Which command when applied to the Atlanta router reduces type 3 LSA flooding into the backbone area and summarizes the inter-area routes on the Dallas router?

A. Atlanta(config-route)#area 0 range 192.168.0.0 255.255.248.0
B. Atlanta(config-route)#area 0 range 192.168.0.0 255.255.252.0
C. Atlanta(config-route)#area 1 range 192.168.0.0 255.255.252.0
D. Atlanta(config-route)#area 1 range 192.168.0.0 255.255.248.0

Correct Answer: C
Section:

QUESTION 14
Refer to the exhibit.

R1	R2
key chain cisco123	key chain cisco123
key 1	key 1
key-string Cisco123!	key-string Cisco123!
Ethernet0/0 - Group 10	Ethernet0/0 - Group 10
State is Active	State is Active
8 state changes, last state change 00:02:49	17 state changes, last state change 00:02:17
Virtual IP address is 192.168.0.1	Virtual IP address is 192.168.0.1
Active virtual MAC address is 0000.0c07.ac0a	Active virtual MAC address is 0000.0c07.ac0a

An engineer is installing a new pair of routers in a redundant configuration. Which protocol ensures that traffic is not disrupted in the event of a hardware failure?
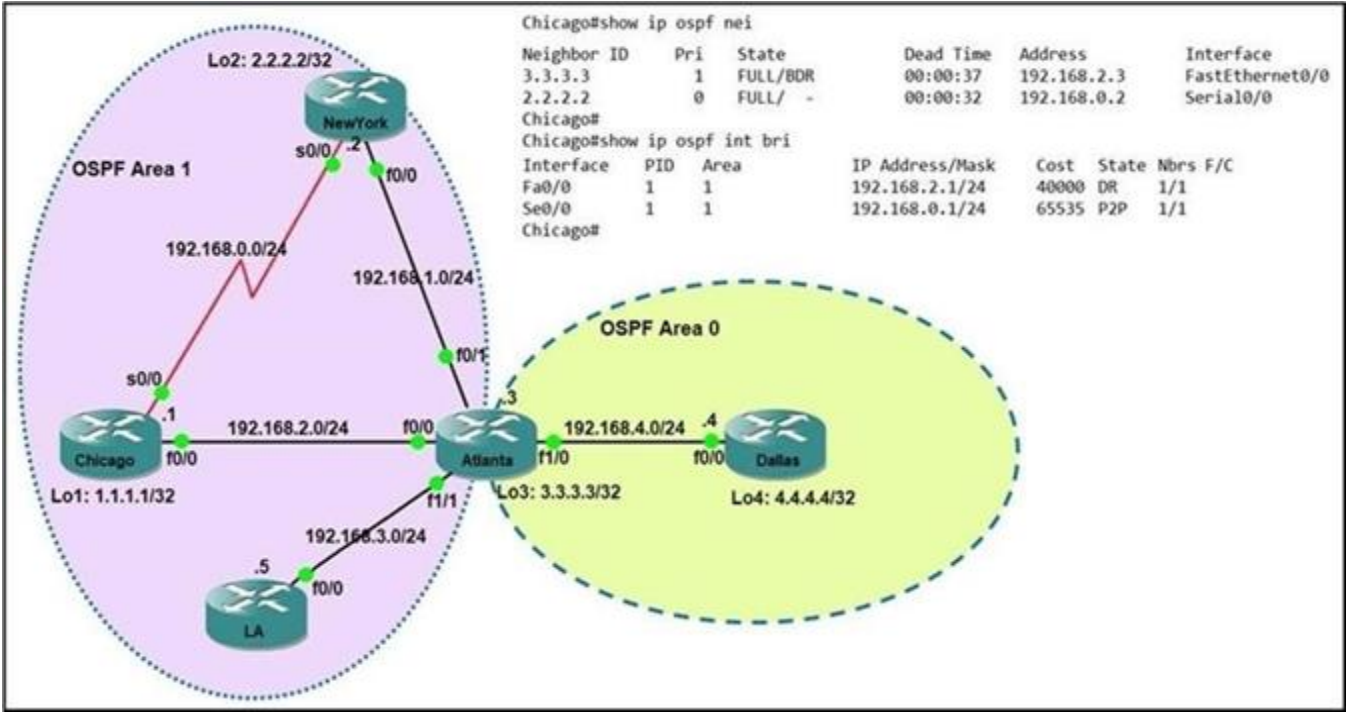
A. HSRPv1
B. GLBP
C. VRRP
D. HSRPv2

Correct Answer: A
Section:
Explanation:

The ?virtual MAC address? is 0000.0c07.acXX (XX is the hexadecimal group number) so it is using HSRPv1.
Note: HSRP Version 2 uses a new MAC address which ranges from 0000.0C9F.F000 to 0000.0C9F.FFFF.

QUESTION 15
Refer the exhibit.

Which router is the designated router on the segment 192.168.0.0/24?

A. This segment has no designated router because it is a nonbroadcast network type.
B. This segment has no designated router because it is a p2p network type.
C. Router Chicago because it has a lower router ID
D. Router NewYork because it has a higher router ID

Correct Answer: B
Section:

QUESTION 16
Which Python code snippet must be added to the script to store the changed interface configuration to a local JSON-formatted file?

```
import json
import requests

Creds = ("user", "Z#418208328$mnV")
Headers = { "Content-Type" : "application/yang-data+json",
            "Accept" : "application/yang-data+json" }

BaseURL = https://cpe/restconf/data"
URL = BaseURL + "/Cisco-IOS-XE-native:native/interface"

Response = requests.get(URL, auth = Creds, headers = Headers, verify = False)
UpdatedConfig = Response.text.replace("2001:db8:1:", "2001:db8:café:"
```

```
OutFile = open("ifaces.json", "w")
  json.dump(UpdatedConfig,OutFile)
  OutFile.close()
```

```
OutFile = open("ifaces.json", "w")
  OutFile.write(UpdatedConfig)
  OutFile.close()
```

```
OutFile = open("ifaces.json", "w")
  OutFile.write(Response.text)
  OutFile.close()
```

```
OutFile = open("ifaces.json", "w")
  OutFile.write(Response.json())
  OutFile.close()
```

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

Correct Answer: B
Section:

QUESTION 17
Refer to the exhibit.

```
Router#sh access-list
Extended IP access list 100
    10 permit tcp any any eq telnet
Extended IP access list 101
    10 permit tcp any any eq 22
```

Refer to the exhibit. Which configuration set implements Control plane Policing for SSH and Telnet?

○ Router(config)#class-map match-all class-control
Router(config-cmap)#match access-group 100
Router(config-cmap)#match access-group 101
Router(config)#policy-map CoPP

Router(config-pmap)#class class-control
Router(config-pmap-c)#police 1000000 conform-action transmit
Router(config)#control-plane
Router(config-cp)#service-policy output CoPP

○ Router(config)#class-map type inspect match-all
Router(config-cmap)#match access-group 100
Router(config-cmap)#match access-group 101
Router(config)#policy-map CoPP

Router(config-pmap)#class class-control
Router(config-pmap-c)#police 1000000 conform-action transmit
Router(config)#control-plane
Router(config-cp)#service-policy output CoPP

○ Router(config)#class-map class-telnet
Router(config-cmap)#match access-group 100
Router(config-cmap)#class-map class-ssh
Router(config-cmap)#match access-group 101
Router(config)#policy-map CoPP

Router(config-pmap)#class class-telnet-ssh
Router(config-pmap-c)#police 1000000 conform-action transmit
Router(config)#control-plane
Router(config-cp)#service-policy input CoPP

⊙ Router(config)#class-map match-any class-control
Router(config-cmap)#match access-group 100
Router(config-cmap)#match access-group 101
Router(config)#policy-map CoPP

Router(config-pmap)#class class-control
Router(config-pmap-c)#police 1000000 conform-action transmit
Router(config)#control-plane
Router(config-cp)#service-policy input CoPP

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

Correct Answer: D
Section:

QUESTION 18

```
Script

import ncclient

with ncclient.manager.connect(host='192.168.1.1', port=830, username='root', password='test123!',
    allow_agent=False) as m:
        print(m.get_config('running').data_xml)

Output

$ python get_config.py
Traceback (most recent call last):
  File "get_config.py", line 3, in <module>
    with ncclient.manager.connect(host='192.168.1.1', port=830, username='root',
AttributeError: 'module' object has no attribute 'manager'
```

Refer to the Exhibit. Running the script causes the output in the exhibit. What should be the first line of the script?

A. from ncclient import manager

B. import manager

C. from ncclient import *

D. ncclient manager import

Correct Answer: C
Section:
Explanation:

QUESTION 19
DRAG DROP
Drag and drop the descriptions from the left onto the correct QoS components on the right.

Select and Place:

Answer Area

| causes TCP retransmissions when traffic is dropped |
| buffers excessive traffic |
| introduces no delay and jitter |
| introduces delay and jitter |
| drops excessive traffic |
| typically delays, rather than drops traffic |

Traffic Policing

Traffic Shaping

Correct Answer:

Answer Area

Traffic Policing

causes TCP retransmissions when traffic is dropped

introduces delay and jitter

drops excessive traffic

Traffic Shaping

buffers excessive traffic

introduces no delay and jitter

typically delays, rather than drops traffic

Section:
Explanation:

QUESTION 20
The login method is configured on the VTY lines of a router with these parameters.
The first method for authentication is TACACS
If TACACS is unavailable, login is allowed without any provided credentials Which configuration accomplishes this task?

A. R1#sh run | include aaa
   aaa new-model
   aaa authentication login VTY group tacacs+ none
   aaa session-id common
   R1#sh run | section vty
   line vty 0 4
   password 7 0202039485748
   R1#sh run | include username
   R1#

B. R1#sh run | include aaa
   aaa new-model
   aaa authentication login telnet group tacacs+ none
   aaa session-id common
   R1#sh run | section vty
   line vty 0 4
   R1#sh run | include username
   R1#

C. R1#sh run | include aaa
   aaa new-model
   aaa authentication login default group tacacs+ none
   aaa session-id common
   R1#sh run | section vty
   line vty 0 4
   password 7 0202039485748

D. R1#sh run | include aaa
   aaa new-model

aaa authentication login default group tacacs+
aaa session-id common
R1#sh run | section vty
line vty 0 4
transport input none
R1#

Correct Answer: C
Section:
Explanation:
According to the requirements (first use TACACS+, then allow login with no authentication), we have to use "aaa authentication login … group tacacs+ none" for AAA command.
The next thing to check is the if the "aaa authentication login default" or "aaa authentication login list-name" is used. The 'default' keyword means we want to apply for all login connections (such as tty, vty, console and aux). If we use this keyword, we don't need to configure anything else under tty, vty and aux lines. If we don't use this keyword then we have to specify which line(s) we want to apply the authentication feature.
From above information, we can find out answer 'R1#sh run | include aaa aaa new-model aaa authentication login default group tacacs+ none aaa session-id common R1#sh run | section vty line vty 0 4 password 7 0202039485748 If you want to learn more about AAA configuration, please read our AAA TACACS+ and RADIUS Tutorial – Part 2.
For your information, answer 'R1#sh run | include aaa aaa new-model aaa authentication login telnet group tacacs+ none aaa session-id common R1#sh run | section vty line vty 0 4 R1#sh run | include username R1#' would be correct if we add the following command under vty line ("line vty 0 4"): "login authentication telnet" ("telnet" is the name of the AAA list above)

QUESTION 21
An engineer must create an EEM script to enable OSPF debugging in the event the OSPF neighborship goes down. Which script must the engineer apply?

```
○ event manager applet ENABLE_OSPF_DEBUG
  event syslog pattern "%OSPF-5-ADJCHG: Process 5, Nbr 1.1.1.1 on Serial0/0 from LOADING to FULL"
  action 1.0 cli command "enable"
  action 2.0 cli command "debug ip ospf event"
  action 3.0 cli command "debug ip ospf adj"
  action 4.0 syslog priority informational msg "ENABLE_OSPF_DEBUG"

○ event manager applet ENABLE_OSPF_DEBUG
  event syslog pattern "%OSPF-5-ADJCHG: Process 5, Nbr 1.1.1.1 on Serial0/0 from LOADING to FULL"
  action 1.0 cli command "debug ip ospf event"
  action 2.0 cli command "debug ip ospf adj"
  action 3.0 syslog priority informational msg "ENABLE_OSPF_DEBUG"

○ event manager applet ENABLE_OSPF_DEBUG
  event syslog pattern "%OSPF-5-ADJCHG: Process 6, Nbr 1.1.1.1 on Serial0/0 from FULL to DOWN"
  action 1.0 cli command "enable"
  action 2.0 cli command "debug ip ospf event"
  action 3.0 cli command "debug ip ospf adj"
  action 4.0 syslog priority informational msg "ENABLE_OSPF_DEBUG"

○ event manager applet ENABLE_OSPF_DEBUG
  event syslog pattern "%OSPF-1-ADJCHG: Process 5, Nbr 1.1.1.1 on Serial0/0 from FULL to DOWN"
  action 1.0 cli command "debug ip ospf event"
  action 2.0 cli command "debug ip ospf adj"
  action 3.0 syslog priority informational msg "ENABLE_OSPF_DEBUG"
```

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

Correct Answer: C
Section:

QUESTION 22

```
RP/0/0/CPU0:BRDR-1#show route ipv4 0.0.0.0
Routing entry for 0.0.0.0/0
    Known via "bgp 65001", distance 20, metric 0, candidate default path
    Tag 65002, type external
    Installed Jan  2 08:40:59.889 for 00:01:18
    Routing Descriptor Blocks
        100.65.19.1, from 100.65.19.1, BGP external
            Route metric is 0
    No advertising protos.

RP/0/0/CPU0:BRDR-1#show run router ospf
router ospf 1
    redistribute bgp 65001 route-policy BGP-TO-OSPF
    area 0
        mpls traffic-eng
        interface Loopback0
        interface GigabitEthernet0/0/0/0.92
        interface GigabitEthernet0/0/0/0.3132
    mpls traffic-eng router-id Loopback0

RP/0/0/CPU0:BRDR-1#show rpl route-policy BGP-TO-OSPF
route-policy BGP-TO-OSPF
    if destination in (0.0.0.0/0) then
        set metric-type type-1
    endif
    set metric-type type-2
    set ospf-metric 100
end-policy
```

Refer to the exhibit. Router BRDR-1 is configured to receive the 0.0.0.0/0 and 172.17.1.0/24 network via BGP and advertise them into OSPF are 0. An engineer has noticed that the OSPF domain is receiving only the 172.17.1.0/24 route and default route 0.0.0.0/0 is still missing. Which configurating must engineer apply to resolve the problem?

```
○ router ospf 1
  default-information originate always
  end

○ router ospf 1
  redistribute bgp 65001 metric 100 route-policy BGP-TO-OSPF
  end

○ router ospf 1
  default-metric 100
  end

○ router ospf 1
  default-information originate
  end
```

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

Correct Answer: D
Section:

QUESTION 23
A network engineer must configure a router to send logging messages to a syslog server based on these requirements: uses syslog IP address: 10.10.10.1 uses a reliable protocol must not use any well-known TCP/UDP ports Which configuration must be used?

A. logging host 10.10.10.1 transport tcp port 1024
B. logging origin-id 10.10.10.1
C. logging host 10.10.10.1 transport udp port 1023
D. logging host 10.10.10.1 transport udp port 1024

Correct Answer: A
Section:

QUESTION 24

```
Device# configure terminal
Device(config)# netconf ssh acl 1
Device(config)# netconf lock-time 100
Device(config)# netconf max-sessions 1
Device(config)# netconf max-message 10
```

Refer to the exhibit. A network engineer must configure NETCONF. After creating the configuration, the engineer gets output from the command show line, but not from show running-config. Which command completes the configuration?

◉ Device(config)# netconf lock-time 500

◉ Device(config)# netconf max-message 1000

◉ Device(config)# no netconf ssh acl 1

◉ Device(config)# netconf max-sessions 100

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

Correct Answer: C
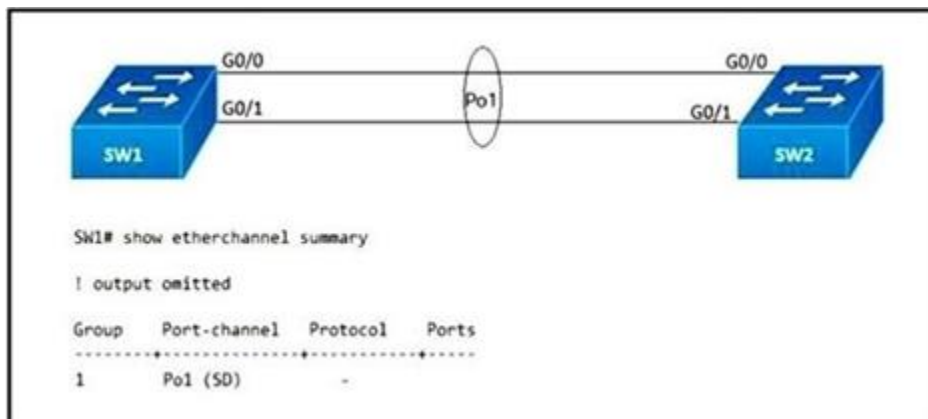**Section:**

QUESTION 25
An engineer is configuring a new SSID to present users with a splash page for authentication. Which WLAN Layer 3 setting must be configured to provide this functionally?

A. CCKM
B. WPA2 Policy
C. Local Policy
D. Web Policy

Correct Answer: D
Section:

QUESTION 26
Refer to the exhibit.

After an engineer configures an EtherChannel between switch SW1 and switch SW2, this error message is logged on switch SW2.
09:45:32: %PM-4-ERR_DISABLE: channel-misconfig error detected on Gi0/0, putting Gi0/0 in err-disable state
09:45:32: %PM-4-ERR_DISABLE: channel-misconfig error detected on Gi0/1, putting Gi0/1 in err-disable state
Based on the output from SW1 and the log message received on Switch SW2, what action should the engineer take to resolve this issue?

A. Configure the same protocol on the EtherChannel on switch SW1 and SW2.

B. Connect the configuration error on interface Gi0/1 on switch SW1.

C. Define the correct port members on the EtherChannel on switch SW1.

D. Correct the configuration error on interface Gi0/0 switch SW1.

Correct Answer: A
Section:
Explanation:
In this case, we are using your EtherChannel without a negotiation protocol. As a result, if the opposite switch is not also configured for EtherChannel operation on the respective ports, there is a danger of a switching loop. The EtherChannel
Misconfiguration Guard tries to prevent that loop from occuring by disabling all the ports bundled in the EtherChannel.

QUESTION 27
Which antenna type should be used for a site-to-site wireless connection?

A. Omnidirectional

B. dipole

C. patch

D. Yagi

Correct Answer: D
Section:

QUESTION 28
Refer to the exhibit.

An engineer is troubleshooting an application running on Apple phones. The application Is receiving incorrect QoS markings. The systems administrator confirmed that ail configuration profiles are correct on the Apple devices. Which change on the WLC optimizes QoS for these devices?

A. Enable Fastlane

B. Set WMM to required

C. Change the QoS level to Platinum

D. Configure AVC Profiles

QUESTION 29
What is the function of the LISP map resolver?

A. to send traffic to non-LISP sites when connected to a service provider that does not accept nonroutable EIDs as packet sources
B. to connect a site to the LISP-capable part of a core network publish the EID-to-RLOC mappings for the site, and respond to map-request messages
C. to decapsulate map-request messages from ITRs and forward the messages to the MS.
D. to advertise routable non-LISP traffic from one address family to LISP sites in a different address family

Correct Answer: C
Section:
Explanation:
Map resolver (MR): The MR performs the following functions: Receives MAP requests, which are encapsulated by ITRs. Provides a service interface to the ALT router, de-encapsulates MAP requests, and forwards on the ALT topology.

QUESTION 30
A network administrator applies the following configuration to an IOS device.

```
aaa new-model
aaa authentication login default local group tacacs+
```

What is the process of password checks when a login attempt is made to the device?

A. A TACACS+server is checked first. If that check fail, a database is checked?
B. A TACACS+server is checked first. If that check fail, a RADIUS server is checked. If that check fail. a local database is checked.
C. A local database is checked first. If that fails, a TACACS+server is checked, if that check fails, a RADUIS server is checked.
D. A local database is checked first. If that check fails, a TACACS+server is checked.

Correct Answer: D
Section:

QUESTION 31
What is the purpose of the LISP routing and addressing architecture?

A. It creates two entries for each network node, one for Its identity and another for its location on the network.
B. It allows LISP to be applied as a network visualization overlay though encapsulation.
C. It allows multiple Instances of a routing table to co-exist within the same router.
D. It creates head-end replication used to deliver broadcast and multicast frames to the entire network.

Correct Answer: A
Section:

QUESTION 32
How does Cisco Trustsec enable more access controls for dynamic networking environments and data centers?

A. classifies traffic based on advanced application recognition
B. uses flexible NetFlow

C. classifies traffic based on the contextual identity of the endpoint rather than its IP address correct
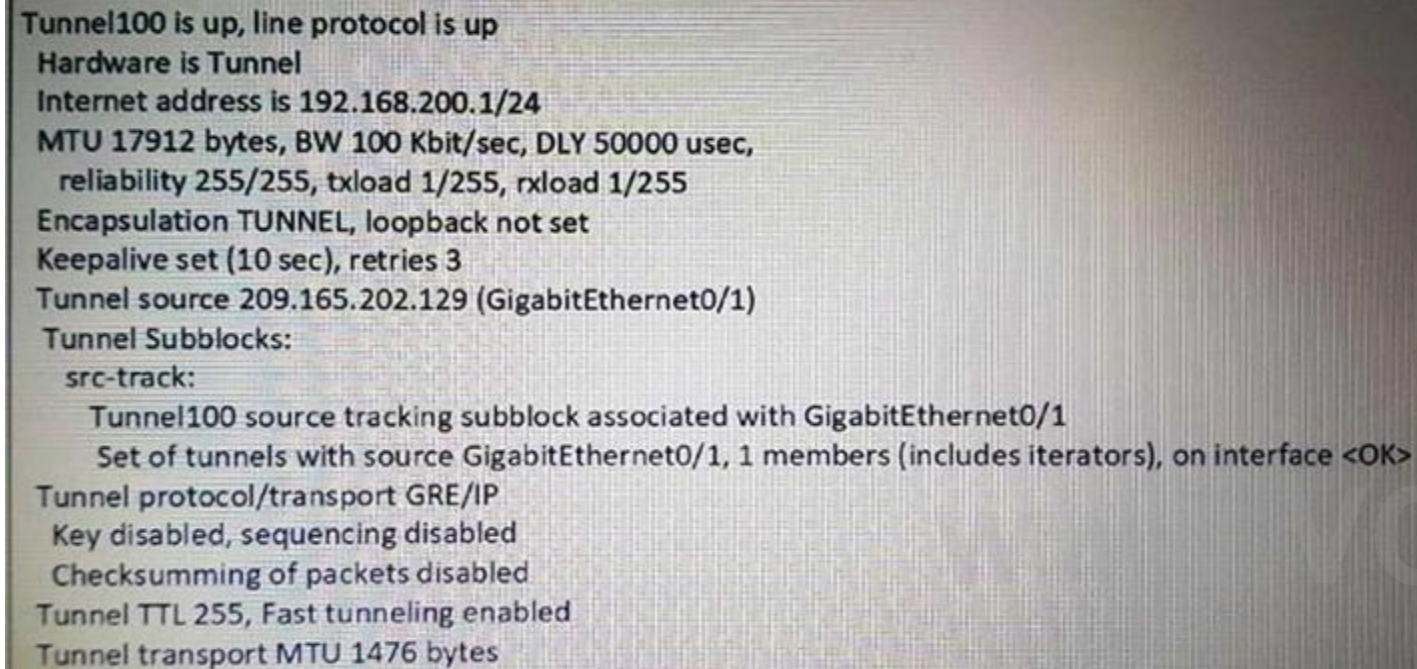D. assigns a VLAN to the endpoint

Correct Answer: C
Section:
Explanation:
The Cisco TrustSec solution simplifies the provisioning and management of network access control through the use of software-defined segmentation to classify network traffic and enforce policies for more flexible access controls. Traffic classification is based on endpoint identity, not IP address, enabling policy change without net-work redesign.

QUESTION 33
Refer to the exhibit.

```
Tunnel100 is up, line protocol is up
  Hardware is Tunnel
  Internet address is 192.168.200.1/24
  MTU 17912 bytes, BW 100 Kbit/sec, DLY 50000 usec,
    reliability 255/255, txload 1/255, rxload 1/255
  Encapsulation TUNNEL, loopback not set
  Keepalive set (10 sec), retries 3
  Tunnel source 209.165.202.129 (GigabitEthernet0/1)
   Tunnel Subblocks:
     src-track:
        Tunnel100 source tracking subblock associated with GigabitEthernet0/1
        Set of tunnels with source GigabitEthernet0/1, 1 members (includes iterators), on interface <OK>
  Tunnel protocol/transport GRE/IP
   Key disabled, sequencing disabled
   Checksumming of packets disabled
  Tunnel TTL 255, Fast tunneling enabled
  Tunnel transport MTU 1476 bytes
```

A network engineer configures a GRE tunnel and enters the show Interface tunnel command. What does the output confirm about the configuration?

A. The keepalive value is modified from the default value.
B. Interface tracking is configured.
C. The tunnel mode is set to the default.
D. The physical interface MTU is 1476 bytes.

Correct Answer: C
Section:

QUESTION 34
"HTTP/1.1 204 content" is returned when cur –I –x delete command is issued. Which situation hasoccurred?

A. The object could not be located at the URI path.
B. The command succeeded in deleting the object
C. The object was located at the URI, but it could not be deleted.
D. The URI was invalid

Correct Answer: B

Section:
Explanation:
HTTP Status 204 (No Content) indicates that the server has successfully fulfilled the request and thatthere is no content to send in the response payload body.

QUESTION 35
A company plans to implement intent-based networking in its campus infrastructure. Which design facilities a migrate from a traditional campus design to a programmer fabric designer?

A. Layer 2 access
B. three-tier
C. two-tier
D. routed access

Correct Answer: C
Section:

QUESTION 36
When a wireless client roams between two different wireless controllers, a network connectivity outage is experience for a period of time. Which configuration issue would cause this problem?

A. Not all of the controllers in the mobility group are using the same mobility group name.
B. Not all of the controllers within the mobility group are using the same virtual interface IP address.
C. All of the controllers within the mobility group are using the same virtual interface IP address.
D. All of the controllers in the mobility group are using the same mobility group name.

Correct Answer: B
Section:

QUESTION 37
Refer to the exhibit.

```
ip sla 10

icmp-echo 192.168.10.20

timeout 500

frequency 3

ip sla schedule 10 life forever start-time now
track 10 ip sla 10 reachability
```

The IP SLA is configured in a router. An engineer must configure an EEM applet to shut down the interface and bring it back up when there is a problem with the IP SLA. Which configuration should the engineer use?

A. event manager applet EEM_IP_SLA event track 10 state down
B. event manager applet EEM_IP_SLA event track 10 state unreachable
C. event manager applet EEM_IP_SLA event sla 10 state unreachable
D. event manager applet EEM_IP_SLA event sla 10 state down

Correct Answer: A
Section:

Explanation:
The ?ip sla 10? will ping the IP 192.168.10.20 every 3 seconds to make sure the connection is still up. We can configure an EEM applet if there is any problem with this IP SLA via the command ?event track 10 state down?.
Reference: https://www.theroutingtable.com/ip-sla-and-cisco-eem/

QUESTION 38
Which JSON syntax is valid?

A.

{"switch": "name": "dist1", "interfaces": ["gig1", "gig2", "gig3"])}

B.

{'switch': ('name': 'dist1', 'interfaces': ['gig1', 'gig2', 'gig3'])}

C.

{"switch": {"name": "dist1", "interfaces": ["gig1", "gig2", "gig3"]}}

D.

{/"switch/": {/"name/": "dist1", /"interfaces/": ["gig1", "gig2", "gig3"]}}
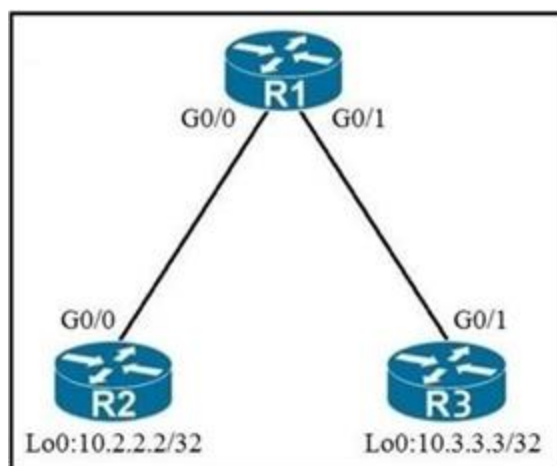
Correct Answer: C
Section:
Explanation:
This JSON can be written as follows:
{' switch': {
'name': 'dist1',
'interfaces': ['gig1', 'gig2', 'gig3']
}}

QUESTION 39

Refer to the exhibit.

An engineer must deny Telnet traffic from the loopback interface of router R3 to the loopback interface of router R2 during the weekend hours. All other traffic between the loopback interfaces of routers R3 and R2 must be allowed at all times. Which command accomplish this task?

A. R3(config)#time-range WEEKEND
R3(config-time-range)#periodic Saturday Sunday 00:00 to 23:59
R3(config)#access-list 150 deny tcp host 10.3.3.3 host 10.2.2.2 eq 23 time-range WEEKEND
R3(config)#access-list 150 permit ip any any time-range WEEKEND
R3(config)#interface G0/1
R3(config-if)#ip access-group 150 out

B. R1(config)#time-range WEEKEND
R1(config-time-range)#periodic weekend 00:00 to 23:59
R1(config)#access-list 150 deny tcp host 10.3.3.3 host 10.2.2.2 eq 23 time-range WEEKEND
R1(config)#access-list 150 permit ip any any
R1(config)#interface G0/1
R1(config-if)#ip access-group 150 in

C. R3(config)#time-range WEEKEND
R3(config-time-range)#periodic weekend 00:00 to 23:59
R3(config)#access-list 150 permit tcp host 10.3.3.3 host 10.2.2.2 eq 23 time-range WEEKEND
R3(config)#access-list 150 permit ip any any time-range WEEKEND
R3(config)#interface G0/1
R3(config-if)#ip access-group 150 out

D. R1(config)#time-range WEEKEND
R1(config-time-range)#periodic Friday Sunday 00:00 to 00:00
R1(config)#access-list 150 deny tcp host 10.3.3.3 host 10.2.2.2 eq 23 time-range WEEKEND
R1(config)#access-list 150 permit ip any any
R1(config)#interface G0/1
R1(config-if)#ip access-group 150 in

Correct Answer: C
Section:
Explanation:
We cannot filter traffic that is originated from the local router (R3 in this case) so we can only configure the ACL on R1 or R2. "Weekend hours" means from Saturday morning through Sunday night so we have to configure: "periodic weekend 00:00 to 23:59".
Note: The time is specified in 24-hour time (hh:mm), where the hours range from 0 to 23 and the minutes range from 0 to 59.

QUESTION 40
When configuration WPA2 Enterprise on a WLAN, which additional security component configuration is required?

A. NTP server
B. PKI server
C. RADIUS server
D. TACACS server

Correct Answer: C
Section:

QUESTION 41
What is the differences between TCAM and the MAC address table?

A. The MAC address table is contained in CAM ACL and QoS information is stored in TCAM

B. The MAC address table supports partial matches. TCAM requires an exact match

C. Router prefix lookups happens in CAM. MAC address table lookups happen in TCAM.

D. TCAM is used to make Layer 2 forwarding decisions CAM is used to build routing tables

Correct Answer: A
Section:
Explanation:
https://community.cisco.com/t5/networking-documents/cam-content-addressable-memory-vstcam-ternary-content/ta-p/3107938When using Ternary Content Addressable Memory (TCAM) inside routers it's used for faster addresslookup that enables fast routing.

In switches Content Addressable Memory (CAM) is used for building and lookup of mac address table that enables L2 forwarding decisions.

Besides Longest-Prefix Matching, TCAM in today's routers and multilayer Switch devices are used to store ACL, QoS and other things from upper-layer processing.

QUESTION 42
Which exhibit displays a valid JSON file?

```
{
    "hostname": "edge_router_1"
    "interfaces": {
        "GigabitEthernet1/1"
        "GigabitEthernet1/2"
        "GigabitEthernet1/3"
    }
}
```

```
{
    "hostname": "edge_router_1",
    "interfaces": {
        "GigabitEthernet1/1",
        "GigabitEthernet1/2",
        "GigabitEthernet1/3",
    },
}
```

```
{
    "hostname": "edge_router_1"
    "interfaces": {
        "GigabitEthernet1/1"
        "GigabitEthernet1/2"
        "GigabitEthernet1/3"
    }
}
```

```
{
    "hostname": "edge_router_1",
    "interfaces": [
        "GigabitEthernet1/1",
        "GigabitEthernet1/2",
        "GigabitEthernet1/3"
    ]
}
```

A. Option A

B. Option B

C. Option C

D. Option D

Correct Answer: D
Section:

QUESTION 43
A server running Linux is providing support for virtual machines along with DNS and DHCP services for a small business. Which technology does this represent?

A. container

B. Type 1 hypervisor

C. hardware pass-thru

D. Type 2 hypervisor

Correct Answer: D
Section:
Explanation:
In contrast to type 1 hypervisor, a type 2 hypervisor (or hosted hypervisor) runs on top of an operating system and not the physical hardware directly. A big advantage of Type 2 hypervisors is that management console software is not required. Examples of type 2 hypervisor are VMware Workstation (which can run on Windows, Mac and Linux) or Microsoft Virtual PC (only runs on Windows).

QUESTION 44
Refer to the exhibit.
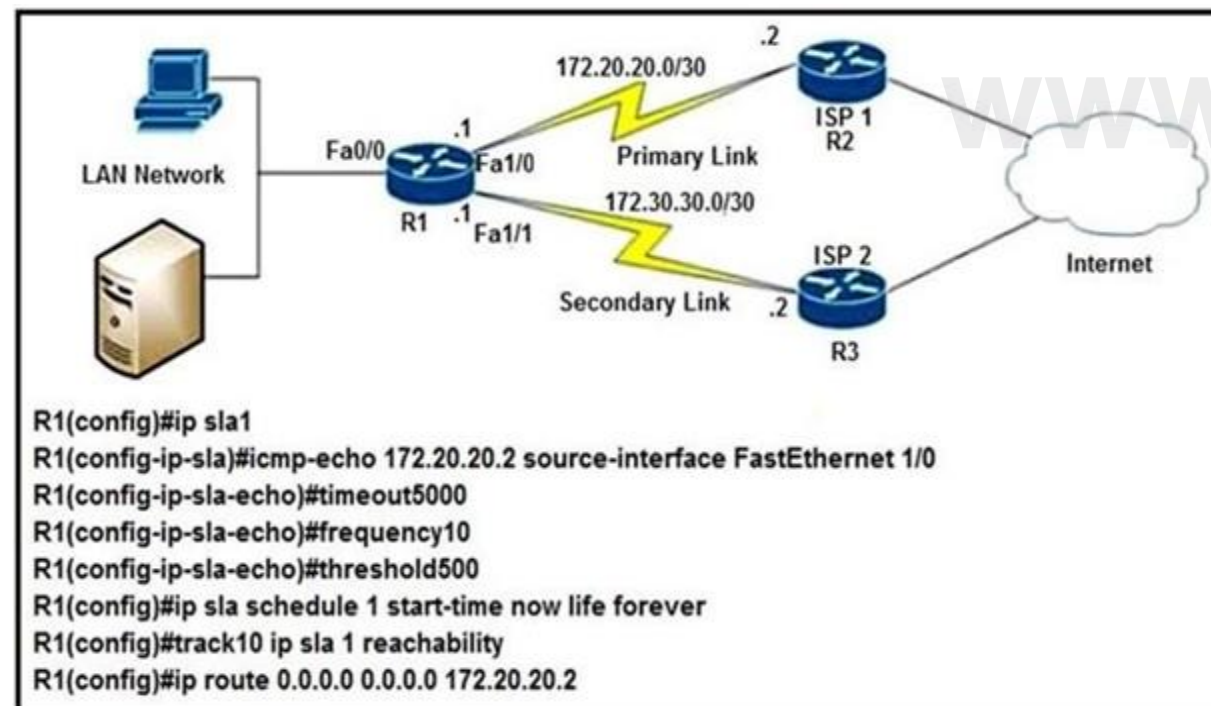
After implementing the configuration 172.20.20.2 stops replaying to ICMP echoes, but the default route fails to be removed. What is the reason for this behavior?

A. The source-interface is configured incorrectly.

B. The destination must be 172.30.30.2 for icmp-echo

C. The default route is missing the track feature

D. The threshold value is wrong.

Correct Answer: C

Section:
Explanation:
The last command should be "R1(config)#ip route 0.0.0.0 0.0.0.0 172.20.20.2 track 10".

QUESTION 45
How does Cisco Trustsec enable more flexible access controls for dynamic networking environments and data centers?

A. uses flexible NetFlow
B. assigns a VLAN to the endpoint
C. classifies traffic based an the contextual identity of the endpoint rather than its IP address
D. classifies traffic based on advanced application recognition

Correct Answer: C
Section:

QUESTION 46
A client device roams between wireless LAN controllers that are mobility peers, Both controllers have dynamic interface on the same client VLAN which type of roam is described?

A. intra-VLAN
B. inter-controller
C. intra-controller
D. inter-subnet

Correct Answer: B
Section:

QUESTION 47
What is the responsibility of a secondary WLC?

A. It shares the traffic load of the LAPs with the primary controller.
B. It avoids congestion on the primary controller by sharing the registration load on the LAPs.
C. It registers the LAPs if the primary controller fails.
D. It enables Layer 2 and Layer 3 roaming between Itself and the primary controller.

Correct Answer: C
Section:

QUESTION 48
Which two characteristics define the Intent API provided by Cisco DNA Center? (Choose two.)

A. northbound API
B. business outcome oriented
C. device-oriented
D. southbound API
E. procedural

Correct Answer: A, B

Section:
Explanation:
The Intent API is a Northbound REST API that exposes specific capabilities of the Cisco DNA Center platform. The Intent API provides policy-based abstraction of business intent, allowing focus on an outcome rather than struggling with individual mechanisms steps.
Reference: https://developer.cisco.com/docs/dna-center/#!cisco-dna-center-platformoverview/intent-api-northbound
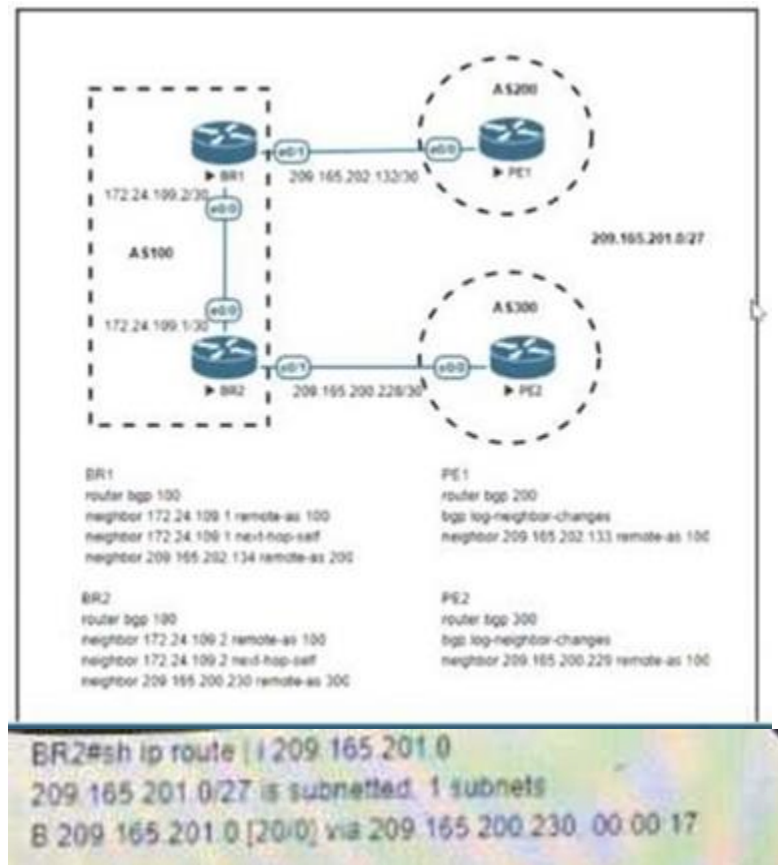
QUESTION 49
Which DHCP option provides the CAPWAP APs with the address of the wireless controller(s)?

A. 43
B. 66
C. 69
D. 150

Correct Answer: A
Section:

QUESTION 50

Refer to the exhibit. Which configuration change will force BR2 to reach 209 165 201 0/27 via BR1?

A. Set the weight attribute to 65.535 on BR1 toward PE1.

B. Set the local preference to 150 on PE1 toward BR1 outbound

C. Set the MED to 1 on PE2 toward BR2 outbound.

D. Set the origin to igp on BR2 toward PE2 inbound.

Correct Answer: C
Section:
Explanation:
MED Attribute:
+ Optional nontransitive attribute (nontransitive means that we can only advertise MED to routers that are one AS away) + Sent through ASes to external BGP neighbors + Lower value is preferred (it can be considered the external metric of a route) + Default value is 0

QUESTION 51
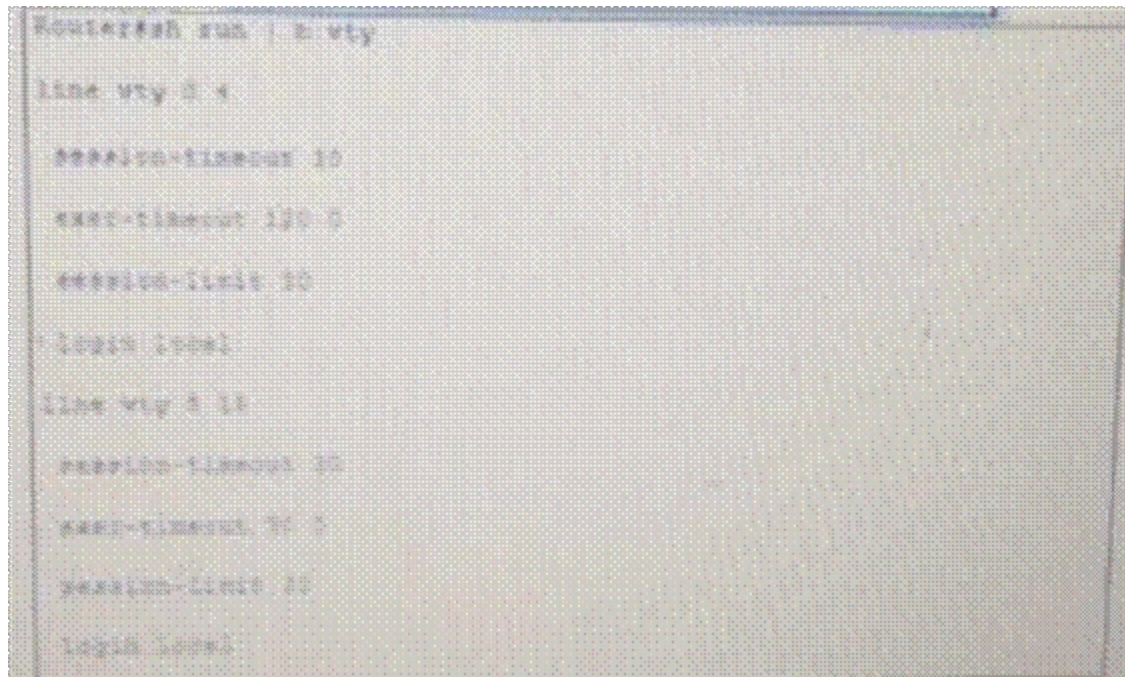Which two methods are used to reduce the AP coverage area? (Choose two)

A. Reduce channel width from 40 MHz to 20 MHz

B. Disable 2.4 GHz and use only 5 GHz.

C. Reduce AP transmit power.

D. Increase minimum mandatory data rate

E. Enable Fastlane

Correct Answer: C, D
Section:

QUESTION 52
Refer to the exhibit.

Security policy requires all idle-exec sessions to be terminated in 600 seconds. Which configuration achieves this goal?

A. line vty 0 15 absolute-timeout 600

B. line vty 0 15 exec-timeout

C. line vty 01 5 exec-timeout 10 0

D. line vty 0 4 exec-timeout 600

Correct Answer: C
Section:

QUESTION 53
Which two threats does AMP4E have the ability to block? (Choose two.)

A. DDoS

B. ransomware

C. Microsoft Word macro attack

D. SQL injection

E. email phishing

Correct Answer: B, C
Section:
Explanation:
https://www.cisco.com/c/dam/en/us/products/collateral/security/amp-for-endpoints/c11-742008- 00-cisco-amp-for-endpoints-wp-v2a.pdf

QUESTION 54

```json
{
    "response": [
        {
            "family": "Routers",
            "interfaceCount": "12",
            "lineCardCount": "9",
            "platformId": "ASR1001-X",
            "reachabilityFailureReason": "",
            "reachabilityStatus": "Reachable",
            "hostname": "RouterASR-1",
            "macAddress": "00:c8:8b:80:bb:00",
        },
        {
            "family": "Switches and Hubs",
            "interfaceCount": "41",
            "lineCardCount": "2",
            "platformId": "CS300-24UX",
            "reachabilityFailureReason": "",
            "reachabilityStatus": "Authentication Failed",
            "hostname": "cat9000-1",
            "macAddress": "f8:7b:20:67:62:80",
        },
        {
            "family": "Switches and Hubs",
            "interfaceCount": "50",
            "lineCardCount": "2",
            "platformId": "WS-C3850-48U-E",
            "reachabilityFailureReason": "",
            "reachabilityStatus": "Unreachable",
            "hostname": "cat3850-1",
            "macAddress": "cc:d8:c1:15:d2:80",
        }
    ],
    "version": "1.0"
}
```

What does the cisco REST response indicate?

A. Cisco DNA Center has the Incorrect credentials for cat3850-1
B. Cisco DNA Center is unable to communicate with cat9000-1
C. Cisco DNA Center has the incorrect credentials for cat9000-1
D. Cisco DNA Center has the Incorrect credentials for RouterASR-1

Correct Answer: C
Section:

QUESTION 55
Refer to the exhibit.

```
SW1#sh monitor session all
Session 1
--------------
Type                    : Remote Destination Session
Source RSPAN VLAN       : 50


Session 2
--------------
Type                    : Local Session
Source Ports            :
        Both            : Fa0/14
   Destination Ports    : Fa0/15
        Encapsulation   : Native
            Ingress     : Disables
```

An engineer configures monitoring on SW1 and enters the show command to verify operation. What does the output confirm?

A. SPAN session 1 monitors activity on VLAN 50 of a remote switch
B. SPAN session 2 only monitors egress traffic exiting port FastEthernet 0/14.
C. SPAN session 2 monitors all traffic entering and exiting port FastEthernet 0/15.
D. RSPAN session 1 is incompletely configured for monitoring

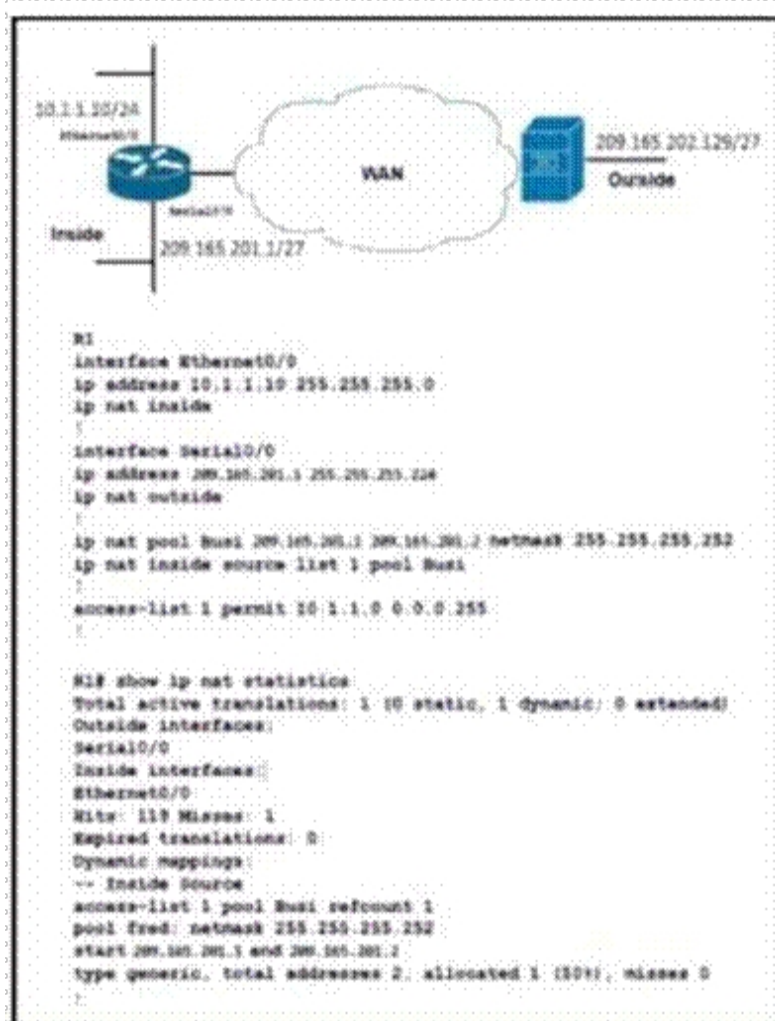**Correct Answer: D**
Section:
Explanation:
SW1 has been configured with the following commands:
SW1(config)#monitor session 1 source remote vlan 50 SW1(config)#monitor session 2 source interface fa0/14 SW1(config)#monitor session 2 destination interface fa0/15 The session 1 on SW1 was configured for Remote SPAN (RSPAN) while session 2 was configured for local SPAN. For RSPAN we need to configure the destination port to complete the configuration.
Note: In fact we cannot create such a session like session 1 because if we only configure ?Source RSPAN VLAN 50? (with the command ?monitor session 1 source remote vlan 50?) then we will receive a ?Type: Remote Source Session?
(not ?Remote Destination Session?).

QUESTION 56

```
R1
interface Ethernet0/0
ip address 10.1.1.10 255.255.255.0
ip nat inside
!
interface Serial0/0
ip address 209.165.201.1 255.255.255.224
ip nat outside
!
ip nat pool Busi 209.165.201.1 209.165.201.2 netmask 255.255.255.252
ip nat inside source list 1 pool Busi
!
access-list 1 permit 10.1.1.0 0.0.0.255
!

R1# show ip nat statistics
Total active translations: 1 (0 static, 1 dynamic; 0 extended)
Outside interfaces:
Serial0/0
Inside interfaces:
Ethernet0/0
Hits: 119 Misses: 1
Expired translations: 0
Dynamic mappings:
-- Inside Source
access-list 1 pool Busi refcount 1
pool Busi: netmask 255.255.255.252
start 209.165.201.1 end 209.165.201.2
type generic, total addresses 2, allocated 1 (50%), misses 0
!
```

Refer to the exhibit. A network engineer configures NAT on R1 and enters me show command to verity the configuration What does the output confirm?

A. The first pocket triggered NAT to add on entry to NAT table
B. R1 is configured with NAT overload parameters
C. A Telnet from 160.1.1 1 to 10.1.1.10 has been initiated.
D. R1 to configured with PAT overload parameters

Correct Answer: A
Section:

QUESTION 57
An engineer is troubleshooting the Ap join process using DNS. Which FQDN must be resolvable on the network for the access points to successfully register to the WLC?

A. wlcbostname.domain.com
B. cisco-capwap-controller.domain.com
C. ap-manager.domain.com
D. primary-wlc.domain.com

Correct Answer: B
Section:
Explanation:
DNS: If you have configured your DHCP server to provide both option 006 (DNS server address) and option 015 (domain name) information, the AP can obtain WLC addresses from the DNS server. The process works as follows:
1. The AP gets its IP address from DHCP with options 6 and 15 configured.
2. The AP can obtain the IP address of the DNS server from the DHCP option.
3. The AP uses this information to perform a hostname lookup using CISCO-CAPWAPCONTROLLER.< localdomain>, which resolves to available WLC management interface IP addresses
(IPv4 or IPv6, or both).
4. The AP can then perform a directed message to associate to responsive WLCs.
To prevent all APs from joining a single controller based on a DNS name resolution, the domain name may vary; this is what is done to dispatch APs to different controllers across the enterprise network, based on different domain names that are configured in their respective DNS scopes.

QUESTION 58
Running the script causes the output in the exhibit. Which change to the first line of the script resolves the error?

```
import ncclient

with ncclient.manager.connect(
    host = '192.168.1.1',
    port=830,
    username = 'root',
    password = 'test398345152!',
    allow_agent = False) as m:
    print(m.get_config('running').data_xml)

Output
$ python get_config.py
Traceback (most recent call last ) :
    File "get_config.py", line 3, in <module>
        with ncclient.manager.connect (host = '192.168.1.1, port = 830, username = 'root',
AttributeError: 'module' object has no attribute 'manager'
```

A. from ncclient import
B. import manager
C. from ncclient import*

D. import ncclient manager

Correct Answer: C
Section:

QUESTION 59
An engineer must configure HSRP group 300 on a Cisco IOS router. When the router is functional, it must be the must be the active HSRP router. The peer router has been configured using the default priority value. Which command set is required?

A.

```
standby 300 priority 110
standby 300 timers 1 110
```

B.

```
standby version 2
standby 300 priority 110
standby 300 preempt
```
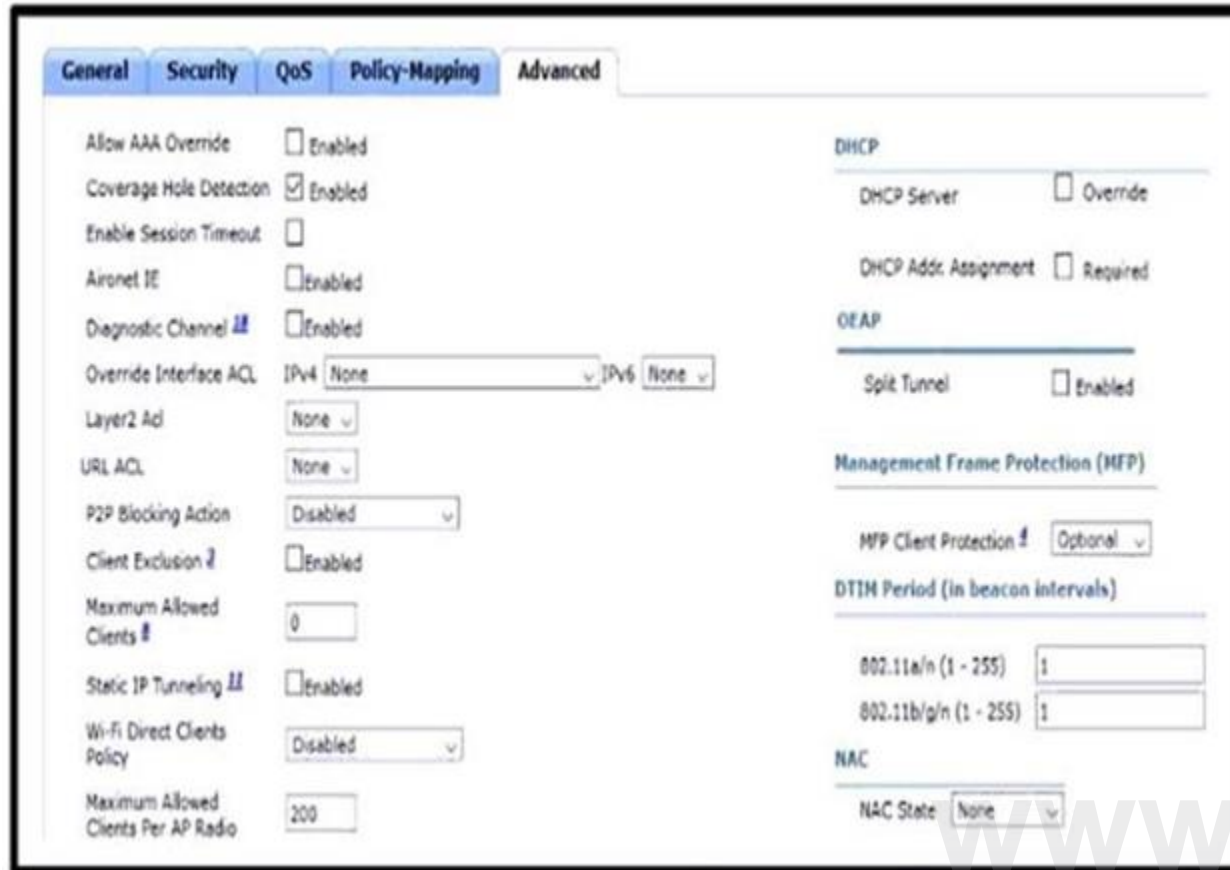
C.

```
standby 300 priority 90
standby 300 preempt
```

D.

```
standby version 2
standby 300 priority 90
standby 300 preempt
```

QUESTION 60

Refer to the exhibit. An engineer is investigating why guest users are able to access other guest user devices when the users are connected to the customer guest WLAN. What action resolves this issue?

A. implement MFP client protection
B. implement split tunneling
C. implement P2P blocking
D. implement Wi-Fi direct policy

Correct Answer: C
Section:
Explanation:
This control determines whether the Wireless LAN Controller is configured to prevent clients connected to the same Wireless Local Area Controller from communicating with each other.
Wireless Client Isolation prevents wireless clients from communicating with each other over the RF.
Packets that arrive on the wireless interface are forwarded only out the wired interface of an Access Point. One wireless client could potentially compromise another client sharing the same wireless network.

QUESTION 61
Which characteristic distinguishes Ansible from Chef?

A. Ansible lacs redundancy support for the master server. Chef runs two masters in an active/active mode.
B. Ansible uses Ruby to manage configurations. Chef uses YAML to manage configurations.
C. Ansible pushes the configuration to the client. Chef client pulls the configuration from the server.
D. The Ansible server can run on Linux, Unix or Windows. The Chef server must run on Linux or Unix.

QUESTION 62
Refer to the exhibit.

Assuming the WLC's interfaces are not in the same subnet as the RADIUS server, which interface would the WLC use as the source for all RADIUS-related traffic?

A. the interface specified on the WLAN configuration
B. any interface configured on the WLC
C. the controller management interface
D. the controller virtual interface

Correct Answer: A
Section:

QUESTION 63
In an SD-Access solution what is the role of a fabric edge node?

A. to connect external Layer 3- network to the SD-Access fabric
B. to connect wired endpoint to the SD-Access fabric
C. to advertise fabric IP address space to external network
D. to connect the fusion router to the SD-Access fabric

Correct Answer: B
Section:
Explanation:
+ Fabric edge node: This fabric device (for example, access or distribution layer device) connects

QUESTION 64

What is a benefit of a virtual machine when compared with a physical server?

A. Multiple virtual servers can be deployed on the same physical server without having to buy additional hardware.
B. Virtual machines increase server processing performance.
C. The CPU and RAM resources on a virtual machine cannot be affected by other virtual machines.
D. Deploying a virtual machine is technically less complex than deploying a physical server.

Correct Answer: A
Section:

QUESTION 65
When using TLS for syslog, which configuration allows for secure and reliable transportation of messages to its default port?

A. logging host 10.2.3.4 vrf mgmt transport tcp port 6514
B. logging host 10.2.3.4 vrf mgmt transport udp port 6514
C. logging host 10.2.3.4 vrf mgmt transport tcp port 514
D. logging host 10.2.3.4 vrf mgmt transport udp port 514

Correct Answer: A
Section:
Explanation:
The TCP port 6514 has been allocated as the default port for syslog over Transport Layer Security (TLS).
Reference: https://tools.ietf.org/html/rfc5425

QUESTION 66
At which Layer does Cisco DNA Center support REST controls?

A. EEM applets or scripts
B. Session layer
C. YMAL output from responses to API calls
D. Northbound APIs

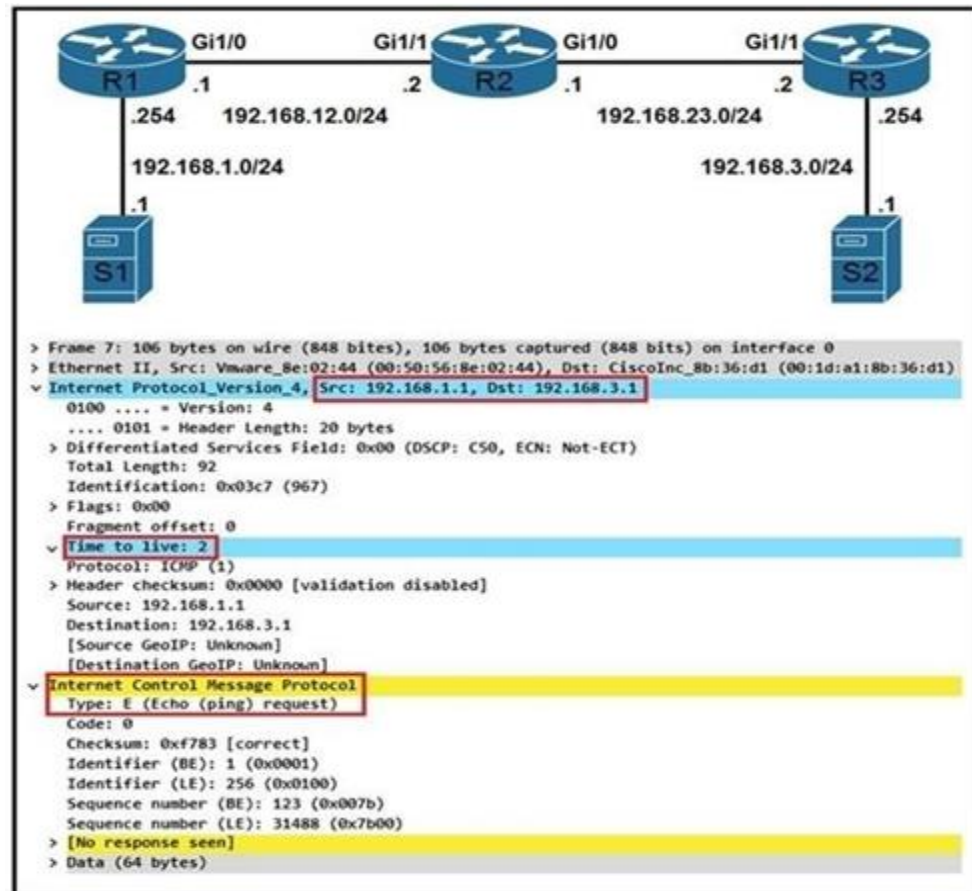**Correct Answer: D**
Section:

QUESTION 67
Refer to the exhibit.

> Frame 7: 106 bytes on wire (848 bites), 106 bytes captured (848 bits) on interface 0
> Ethernet II, Src: Vmware_8e:02:44 (00:50:56:8e:02:44), Dst: CiscoInc_8b:36:d1 (00:1d:a1:8b:36:d1)
> Internet Protocol_Version_4, Src: 192.168.1.1, Dst: 192.168.3.1
    0100 .... = Version: 4
    .... 0101 = Header Length: 20 bytes
  > Differentiated Services Field: 0x00 (DSCP: CS0, ECN: Not-ECT)
    Total Length: 92
    Identification: 0x03c7 (967)
  > Flags: 0x00
    Fragment offset: 0
  v Time to live: 2
    Protocol: ICMP (1)
  > Header checksum: 0x0000 [validation disabled]
    Source: 192.168.1.1
    Destination: 192.168.3.1
    [Source GeoIP: Unknown]
    [Destination GeoIP: Unknown]
  v Internet Control Message Protocol
    Type: E (Echo (ping) request)
    Code: 0
    Checksum: 0xf783 [correct]
    Identifier (BE): 1 (0x0001)
    Identifier (LE): 256 (0x0100)
    Sequence number (BE): 123 (0x007b)
    Sequence number (LE): 31488 (0x7b00)
  > [No response seen]
  > Data (64 bytes)

Which troubleshooting a routing issue, an engineer issues a ping from S1 to S2. When two actions from the initial value of the TTL? (Choose two.)

A. The packet reaches R3, and the TTL expires
B. R2 replies with a TTL exceeded message
C. R3 replies with a TTL exceeded message.
D. The packet reaches R2 and the TTL expires
E. R1 replies with a TTL exceeded message
F. The packet reaches R1 and the TTL expires.

Correct Answer: A, D
Section:
Explanation:
Source MAC in the capture is VMWare, MAC is Cisco. Routers first check the TTL before any further process, subtract 1 at R1. Send to R2, subtract and you have ZERO. Discard packet and reply with ICMP Time Exceeded message from that point, don't even bother checking the Route table for further processing.

QUESTION 68
Which technology provides a secure communication channel for all traffic at Layer 2 of the OSI model?

A. MACsec
B. IPsec
C. SSL
D. Cisco Trustsec

Correct Answer: A
Section:

Explanation:

MACsec, defined in 802.1AE, provides MAC-layer encryption over wired networks by using outofband methods for encryption keying. The MACsec Key Agreement (MKA) Protocol provides the

QUESTION 69

```
Switch2#
01:25:08: %PM-4-ERR_DISABLE: channel-misconfig error detected on
Fa0/23, putting Fa0/23 in err-disable
state
01:25:08: %PM-4-ERR_DISABLE: channel-misconfig error detected on
Fa0/24, putting Fa0/24 in err-disable
state
Switch2#

Switch1#show etherchannel summary

!output omitted

Group  Port-channel  Protocol    Ports
-------------------------------------------------
1      Po2(SD)       LACP        Fa1/0/23(D)


Switch2#show etherchannel summary

!output omitted

Group  Port-channel  Protocol    Ports
-------------------------------------------------
1      Po1(SD)       -           Fa0/23(D)    Fa0/24(D)
```

Refer to the exhibit. An engineer is configuring an EtherChannel between Switch1 and Switch2 and notices the console message on switch2. Based on the output, which action resolves this issue?

A. Configure less member ports on Switch2.

B. Configure the same port channel interface number on both switches

C. Configure the same EtherChannel protocol on both switches

D. Configure more member ports on Switch1.

Correct Answer: C
Section:
Explanation:

In this case, we are using your EtherChannel without a negotiation protocol on Switch2. As a result, if the opposite switch is not also configured for EtherChannel operation on the respective ports, there is a danger of a switching loop. The EtherChannel Misconfiguration Guard tries to prevent that loop from occuring by disabling all the ports bundled in the EtherChannel.

QUESTION 70
Which entity is responsible for maintaining Layer 2 isolation between segments In a VXLAN environment?

A. switch fabric

B. VTEP

C. VNID

D. host switch

Correct Answer: C
Section:
Explanation:

The 24-bit VNID is used to identify Layer 2 segments and to maintain Layer 2 isolation between the segments.

VXLAN uses an 8-byte VXLAN header that consists of a 24-bit VNID and a few reserved bits. The VXLAN header together with the original Ethernet frame goes in the UDP payload. The 24-bit

VNID is used to identify Layer 2 segments and to maintain Layer 2 isolation between the segments.
Reference: https://www.cisco.com/c/en/us/td/docs/switches/datacenter/nexus9000/sw/7-
x/vxlan/configuration/guide/b_Cisco_Nexus_9000_Series_NXOS_VXLAN_Configuration_Guide_7x/b_Cisco_Nexus_9000_Series_NXOS_VXLAN_Configuration_Guide_7x_chapter_010.html

QUESTION 71
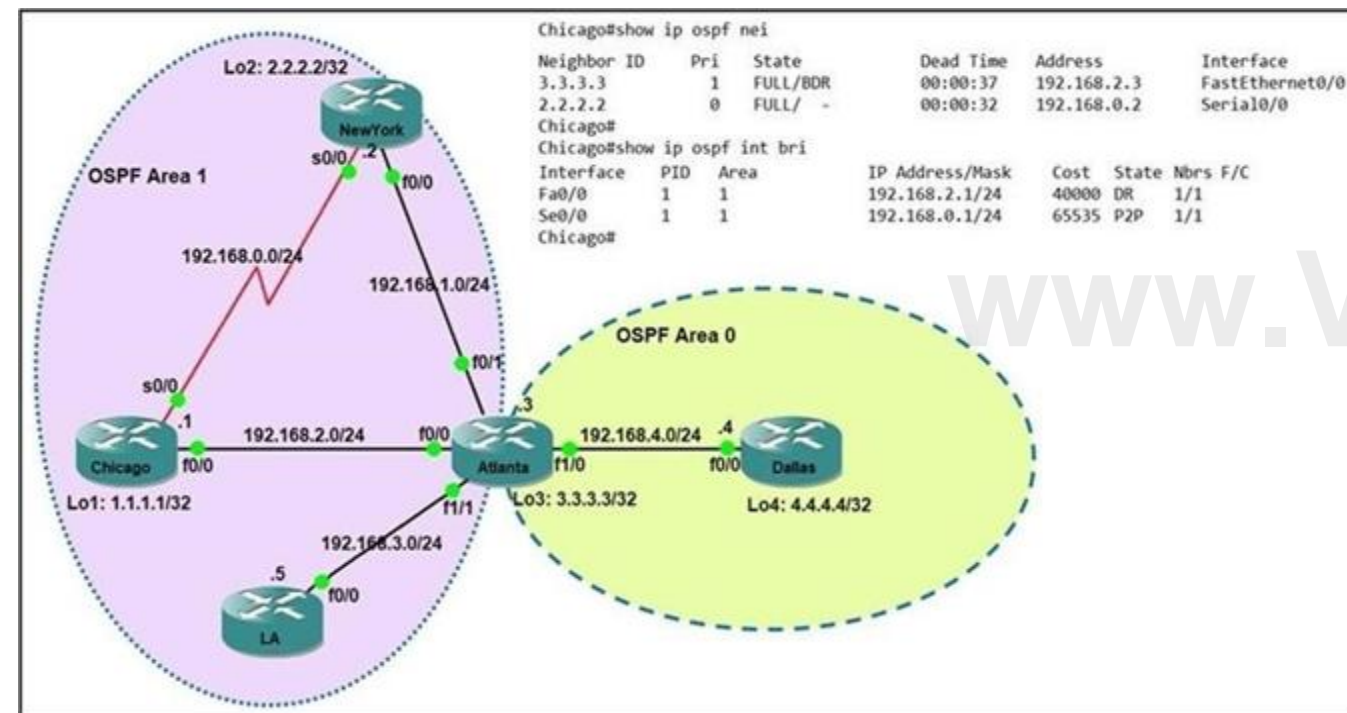Which DHCP option helps lightweight APs find the IP address of a wireless LAN controller?

A. Option 43
B. Option 60
C. Option 67
D. Option 150

Correct Answer: A
Section:

QUESTION 72
Refer the exhibit.

Which router is the designated router on the segment 192.168.0.0/24?

A. This segment has no designated router because it is a nonbroadcast network type.
B. This segment has no designated router because it is a p2p network type.
C. Router Chicago because it has a lower router ID
D. Router NewYork because it has a higher router ID

Correct Answer: B
Section:

QUESTION 73
What are two differences between the RIB and the FIB? (Choose two.)

A. The FIB is derived from the data plane, and the RIB is derived from the FIB.

B. The RIB is a database of routing prefixes, and the FIB is the Information used to choose the egress interface for each packet.

C. FIB is a database of routing prefixes, and the RIB is the information used to choose the egress interface for each packet.

D. The FIB is derived from the control plane, and the RIB is derived from the FIB.

E. The RIB is derived from the control plane, and the FIB is derived from the RIB.

Correct Answer: B, E
Section:

QUESTION 74
Which algorithms are used to secure REST API from brute attacks and minimize the impact?

A. SHA-512 and SHA-384

B. MD5 algorithm-128 and SHA-384

C. SHA-1, SHA-256, and SHA-512

D. PBKDF2, BCrypt, and SCrypt

Correct Answer: D
Section:
Explanation:
One of the best practices to secure REST APIs is using password hash. Passwords must always be hashed to protect the system (or minimize the damage) even if it is compromised in some hacking attempts. There are many such hashing algorithms which can prove really effective for password security e.g. PBKDF2, bcrypt and scrypt algorithms.
Other ways to secure REST APIs are: Always use HTTPS, Never expose information on URLs
(Usernames, passwords, session tokens, and API keys should not appear in the URL), Adding Timestamp in Request, Using OAuth, Input Parameter Validation.
Reference: https://restfulapi.net/security-essentials/

QUESTION 75


```
hostname R1
router ospf 1
network 0.0.0.0 255.255.255.255 area 0
auto-cost reference-bandwidth 1000
!
hostname R2
router ospf 2
network 20.0.0.0 0.0.0.255 area 0
```
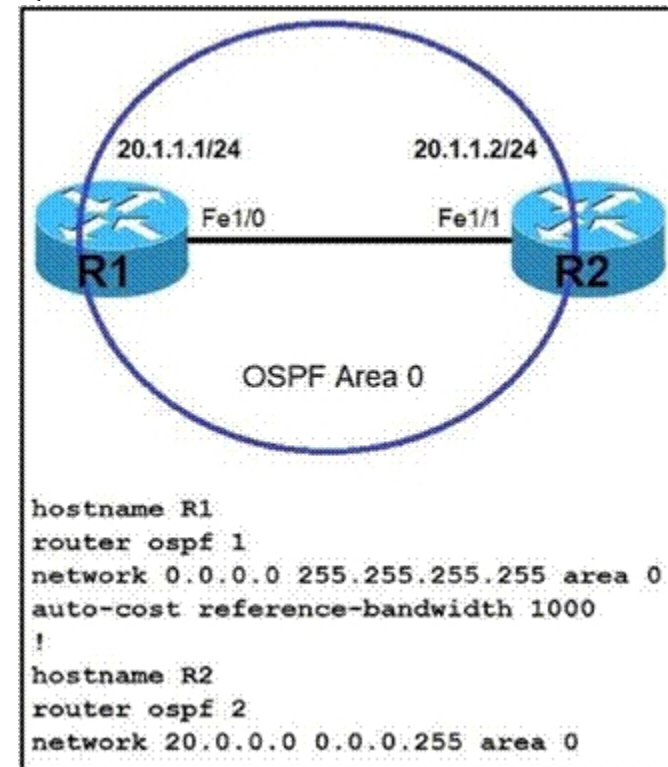
Which command must be applied to R2 for an OSPF neighborship to form?

A. network 20.1.1.2.0.0.0.0 area 0
B. network 20.1.1.2 255.255.0.0. area 0
C. network 20.1.1.2.0.0.255.255 area 0
D. network 20.1.1.2 255.255.255 area 0

Correct Answer: A
Section:
Explanation:
The ?network 20.0.0.0 0.0.0.255 area 0? command on R2 did not cover the IP address of Fa1/1 interface of R2 so OSPF did not run on this interface. Therefore we have to use the command ?network 20.1.1.2 0.0.255.255 area 0? to turn on OSPF on this interface.
Note: The command ?network 20.1.1.2 0.0.255.255 area 0? can be used too so this answer is also correct but answer C is the best answer here.
The ?network 0.0.0.0 255.255.255.255 area 0? command on R1 will run OSPF on all active

QUESTION 76
Which two operations are valid for RESTCONF? (Choose two.)

A. HEAD
B. REMOVE
C. PULL
D. PATCH
E. ADD
F. PUSH

Correct Answer: A, D
Section:
Explanation:
RESTCONF operations include OPTIONS, HEAD, GET, POST, PATCH, DELETE.

QUESTION 77
Which devices does Cisco DNA Center configure when deploying an IP-based access control policy?

A. All devices integrating with ISE
B. selected individual devices
C. all devices in selected sites
D. all wired devices

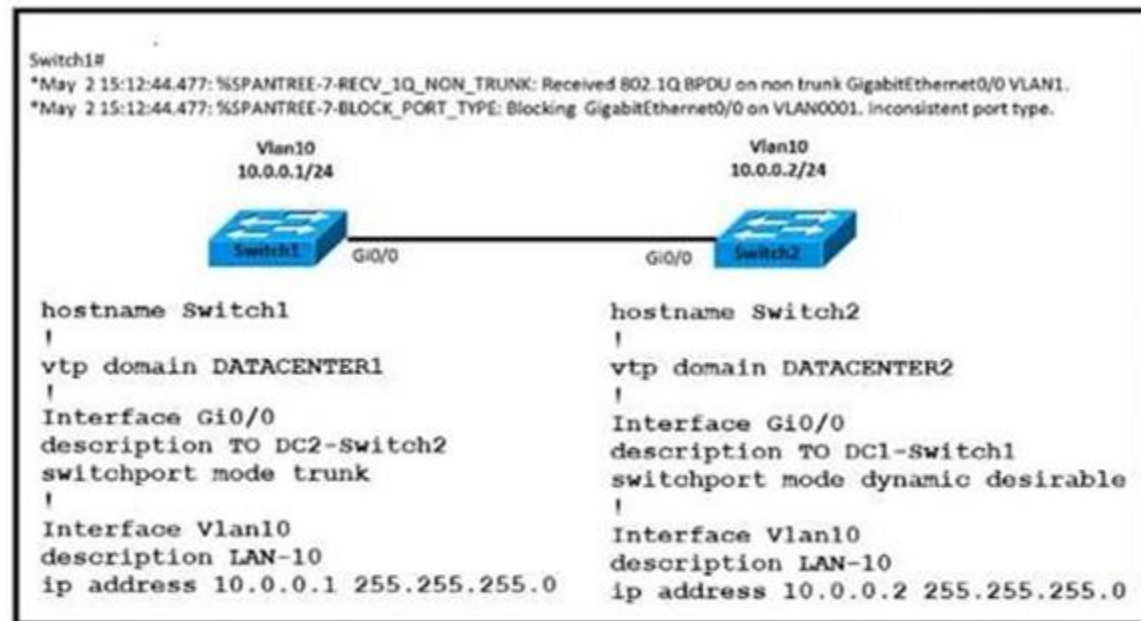**Correct Answer: C**
Section:
Explanation:
When you click Deploy, Cisco DNA Center requests the Cisco Identity Services Engine (Cisco ISE) to send notifications about the policy changes to the network devices.

QUESTION 78
Refer to the exhibit.

```
Switch1#
*May  2 15:12:44.477: %SPANTREE-7-RECV_1Q_NON_TRUNK: Received 802.1Q BPDU on non trunk GigabitEthernet0/0 VLAN1.
*May  2 15:12:44.477: %SPANTREE-7-BLOCK_PORT_TYPE: Blocking GigabitEthernet0/0 on VLAN0001. Inconsistent port type.
```

Vlan10
10.0.0.1/24

Vlan10
10.0.0.2/24

Switch1 Gi0/0   Gi0/0 Switch2

```
hostname Switch1                  hostname Switch2
!                                 !
vtp domain DATACENTER1            vtp domain DATACENTER2
!                                 !
Interface Gi0/0                   Interface Gi0/0
description TO DC2-Switch2         description TO DC1-Switch1
switchport mode trunk             switchport mode dynamic desirable
!                                 !
Interface Vlan10                  Interface Vlan10
description LAN-10                 description LAN-10
ip address 10.0.0.1 255.255.255.0 ip address 10.0.0.2 255.255.255.0
```

An engineer implemented several configuration changes and receives the logging message on switch1. Which action should the engineer take to resolve this issue?

A. Change the VTP domain to match on both switches
B. Change Switch2 to switch port mode dynamic auto
C. Change Switch1 to switch port mode dynamic auto
D. Change Switch1 to switch port mode dynamic desirable

Correct Answer: A
Section:

QUESTION 79
Which AP mode allows an engineer to scan configured channels for rogue access points?

A. sniffer
B. monitor
C. bridge
D. local

Correct Answer: B
Section:

QUESTION 80
While configuring an IOS router for HSRP with a virtual IP of 10 1.1.1. an engineer sees this log message.

```
Jan 1 12:12:12.111 : %HSRP-4-DIFFVIP1: GigabitEthernet0/0 Grp 1 active routers virtual IP addi
```

Which configuration change must the engineer make?

A. Change the HSRP group configuration on the local router to 1.
B. Change the HSRP virtual address on the local router to 10.1.1.1.
C. Change the HSRP virtual address on the remote router to 10.1.1.1.
D. Change the HSRP group configuration on the remote router to 1.

Correct Answer: B

Section:

QUESTION 81
What is the function of a fabric border node in a Cisco SD-Access environment?

A. To collect traffic flow information toward external networks
B. To connect the Cisco SD-Access fabric to another fabric or external Layer 3 networks
C. To attach and register clients to the fabric
D. To handle an ordered list of IP addresses and locations for endpoints in the fabric.

Correct Answer: B
Section:

QUESTION 82
A network engineer configures BGP between R1 and R2. Both routers use BGP peer group CORP and are set up to use MD5 authentication. This message is logged to the console of router R1:
"May 5 39:85:55.469: %TCP-6-BADAUTH" Invalid MD5 digest from 10.10.10.1 (29832) to 10.120.10.1 (179) tebleid -0
Which two configuration allow peering session to from between R1 and R2? Choose two.)

A. R1(config-router)#neighbor 10.10.10.1 peer-group CORP R1(config-router)#neighbor CORP password Cisco
B. R2(config-router)#neighbor 10.120.10.1 peer-group CORP R2(config-router)#neighbor CORP password Cisco
C. R2(config-router)#neighbor 10.10.10.1 peer-group CORP R2(config-router)#neighbor PEER password Cisco
D. R1(config-router)#neighbor 10.120.10.1 peer-group CORP R1(config-router)#neighbor CORP password Cisco
E. R2(config-router)#neighbor 10.10.10.1 peer-group CORP R2(config-router)#neighbor CORP password Cisco

Correct Answer: A, B
Section:

QUESTION 83
Which two operational models enable an AP to scan one or more wireless channels for rouge access points and at the same time provide wireless services to clients? (Choose two.)

A. Rouge detector
B. Sniffer
C. FlexConnect
D. Local
E. Monitor

Correct Answer: D, E
Section:

QUESTION 84
Refer to Exhibit.
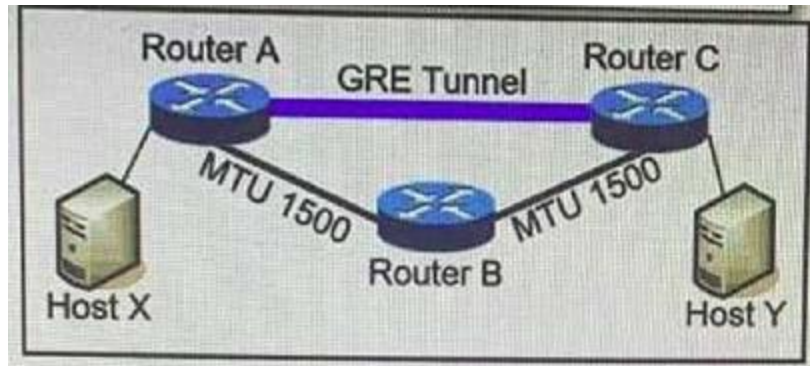
MTU has been configured on the underlying physical topology, and no MTU command has been configured on the tunnel interfaces. What happens when a 1500-byte IPv4 packet traverses the GRE tunnel from host X to host Y, assuming the DF bit is cleared?

A. The packet arrives on router C without fragmentation.

B. The packet is discarded on router A

C. The packet is discarded on router B

D. The packet arrives on router C fragmented.

Correct Answer: D
Section:

QUESTION 85
What is one benefit of implementing a VSS architecture?

A. It provides multiple points of management for redundancy and improved support

B. It uses GLBP to balance traffic between gateways.

C. It provides a single point of management for improved efficiency.

D. It uses a single database to manage configuration for multiple switches

Correct Answer: C
Section:
Explanation:
Support Virtual Switching System (VSS) to provide resiliency, and increased operational efficiency with a single point of management; VSS increases operational efficiency by simplifying the network, reducing switch management overhead by at least 50 percent. – Single configuration file and node to manage. Removes the need to configure redundant switches twice with identical policies.

QUESTION 86
What does Call Admission Control require the client to send in order to reserve the bandwidth?

A. SIP flow information

B. Wi-Fi multimedia

C. traffic specification

D. VoIP media session awareness

Correct Answer: C
Section:

QUESTION 87
Which function in handled by vManage in the cisco SD-WAN fabric?

A. Establishes BFD sessions to test liveliness of links and nodes.

B. Distributes polices that govern data forwarding.

C. Performs remote software upgrades for WAN Edge vSmart and vBond.

D. Establishes iPsec tunnels with nodes

Correct Answer: C
Section:

QUESTION 88
Where is radio resource management performed in a cisco SD-access wireless solution?

A. DNA Center

B. control plane node

C. wireless controller

D. Cisco CMX

Correct Answer: C
Section:
Explanation:
Fabric wireless controllers manage and control the fabric-mode APs using the same general model as the traditional local-mode controllers which offers the same operational advantages such as mobility control and radio resource management. A significant difference is that client traffic from wireless endpoints is not tunnelled from the APs to the wireless controller. Instead, communication from wireless clients is encapsulated in VXLAN by the fabric APs which build a tunnel to their first-hop fabric edge node. Wireless traffic it tunneled to the edge nodes as the edge nodes provide fabric services such as the Layer 3 Anycast Gateway, policy, and traffic enforcement.
https://www.cisco.com/c/en/us/td/docs/solutions/CVD/Campus/cisco-sda-design-guide.html

QUESTION 89
How does EIGRP differ from OSPF?

A. EIGRP is more prone to routing loops than OSPF

B. EIGRP supports equal or unequal path cost, and OSPF supports only equal path cost.

C. EIGRP has a full map of the topology, and OSPF only knows directly connected neighbors

D. EIGRP uses more CPU and memory than OSPF

Correct Answer: B
Section:

QUESTION 90
Refer to the exhibit.

```
PYTHON CODE:
import requests
import json

url='http://YOURIP/ins'
switchuser='USERID'
switchpassword='PASSWORD'

myheaders={'content-type':'application/json'}
payload={
 "ins_api":{
  "version": "1.0",
  "type": "cli_show",
  "chunk": "0",
  "sid": "1"
  "input": "show version",
  "output_format": "json"
  }
}

response = requests.post(url,data=json.dumps(payload), headers=myheaders,auth=(switchuser,switchpassword)).json()

print(response['ins_api']['outputs']['output']['body']['kickstart_ver_str'])
```

```
HTTP JSON Response:
{
"ins_api":{
"type": "cli_show",
"version": "1.0",
"sid": "eoc",
"outputs": {
 "output": {
  "input": "show version",
  "msg": "Success",
  "code": "200",
  "body": {
   "bios_ver_str", "07.61",
   "kickstart_ver_str": "7.0(3)7(4)",
   "bios_cmpl_time": "04/06/2017",
   "kick_file_name": "bootflash:////nxos.7.0.3.|7.4.bin",
   "kick_cmpl_time", "6/14/1970 2:00:00",
   "kick_tmstmp": "06/14/1970 09:49:04",
   "chassis_id": "Nexus9000 93180YC-EX chassis",
   "cpu_name": "Intel(R) Xeon(R) CPU @ 1.80GHz",
   "memory": 24633488,
   "mem_type": "kB",
   "rr_usecs": 134703,
   "rr_crime": "Sun Mar 10 15:41:46 2019",
   "rr_reason": "Reset Requested by CLI command reload",
   "rr_sys_ver": "7.0(3)7(4)",
   "rr_service":"",
   "manufacturer": "Cisco Systems, Inc.",
   "TABLE_package_list": {
    "ROW_package_list": {
     "package_id": {}

    }
   }
  }
 }
}
}
}
```

Which HTTP JSON response does the python code output give?

A. NameError: name 'json' is not defined
B. KeyError 'kickstart_ver_str'
C. 7.61
D. 7.0(3)I7(4)

Correct Answer: D
Section:

QUESTION 91

```
SW1# show interfaces gigabitethernet 0/0 switchport
Name: Gi0/0
Switchport: Enabled
Administrative Mode: dynamic auto
Operational Mode: trunk
Administrative Trunking Encapsulation: dot1q
Operational Trunking Encapsulation: dot1q
Negotiation of Trunking: Off
Access Mode VLAN: 1 (default)
Trunking Native Mode VLAN: 99 (NATIVE)
Administrative Native VLAN tagging: enabled
Voice VLAN: none
...output omitted...

SW2# show interfaces gigabitethernet 0/1 switchport
Name: Gi0/1
Switchport: Enabled
Administrative Mode: dynamic auto
Operational Mode: trunk
Administrative Trunking Encapsulation: negotiate
Operational Trunking Encapsulation: dot1q
Negotiation of Trunking: On
Access Mode VLAN: 1 (default)
Trunking Native Mode VLAN: 99 (NATIVE)
Administrative Native VLAN tagging: enabled
Voice VLAN: none
...output omitted...
```

PC1   PC4

Vlan200   Vlan200

Ge0/1   Ge0/2

SW1   SW2

Ge0/0   Ge0/1

Ge0/2   Ge0/0

Vlan100   Vlan100

PC3   PC2
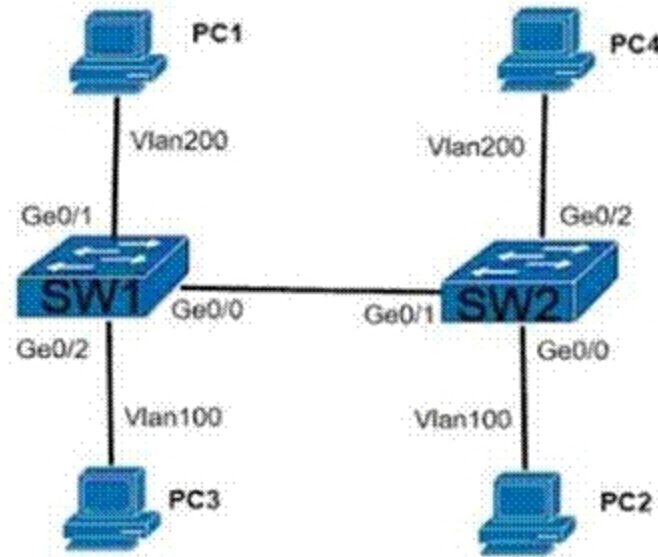
Refer to the exhibit. The connecting between SW1 and SW2 is not operational. Which two actions resolve the issue? (Choose two)

A. configure switchport mode access on SW2

B. configure switchport nonegotiate on SW2

C. configure switchport mode trunk on SW2

D. configure switchport nonegotiate on SW1

E. configure switchport mode dynamic desirable on SW2

Correct Answer: C, E
Section:

QUESTION 92
Refer to the exhibit.

```
Router# traceroute 10.10.10.1

Type escape sequence to abort.
Tracing the route to 10.10.10.1

1   10.0.0.1   5 msec    5 msec    5 msec
2   10.5.0.1   15 msec   17 msec   17 msec
3   10.10.10.1   *        *        *
```

An engineer is troubleshooting a connectivity issue and executes a traceoute. What does the result confirm?

A. The destination server reported it is too busy

B. The protocol is unreachable

C. The destination port is unreachable

D. The probe timed out

Correct Answer: D
Section:
Explanation:
In Cisco routers, the codes for a traceroute command reply are:
! - success
* - time out
N - network unreachable
H - host unreachable
P - protocol unreachable
A - admin denied
Q - source quench received (congestion)
? - unknown (any other ICMP message)In Cisco routers, the codes for a traceroute command reply are:
! - success
* - time out
N - network unreachable
H - host unreachable
P - protocol unreachable
A - admin denied
Q - source quench received (congestion)
? - unknown (any other ICMP message)

QUESTION 93

Which device makes the decision for a wireless client to roam?

A. wireless client

B. wireless LAN controller

C. access point

D. WCS location server

Correct Answer: A
Section:

QUESTION 94

How is MSDP used to interconnect multiple PIM-SM domains?

A. MSDP depends on BGP or multiprotocol BGP for mterdomam operation

B. MSDP SA request messages are used to request a list of active sources for a specific group

C. SDP allows a rendezvous point to dynamically discover active sources outside of its domain

D. MSDP messages are used to advertise active sources in a domain

Correct Answer: A
Section:

QUESTION 95

```
username admin privilege 15 password 0 Cisco13579!
aaa new-model
!
aaa authentication login default local
aaa authentication enable default none
!
aaa common-criteria policy Administrators
 min-length 1
 max-length 127
 char-changes 4
 lifetime month 2
!
```

Refer to the exhibit. A network engineer must configure a password expiry mechanism on the gateway router for all local passwords to expire after 60 days. What is required to complete this task?

A. The password expiry mechanism is on the AAA server and must be configured there.

B. Add the aaa authentication enable default Administrators command.

C. Add the username admin privilege 15 common-criteria*policy Administrators password 0 Cisco13579! command.

D. No further action Is required. The configuration is complete.

Correct Answer: C
Section:
Explanation:
Perform this task to create a password security policy and to apply the policy to a specific user profile.
Device> enable
Device# configure terminal
Device(config)# aaa new-model

Device(config)# aaa common-criteria policy policy1
Device(config-cc-policy)# char-changes 4
Device(config-cc-policy)# max-length 20
Device(config-cc-policy)# min-length 6
Device(config-cc-policy)# numeric-count 2
Device(config-cc-policy)# special-case 2
Device(config-cc-policy)# exit
Device(config)# username user1 common-criteria-policy policy1 password password1 Device(config)# end

QUESTION 96
Which action is the vSmart controller responsible for in an SD-WAN deployment?

A. handle, maintain, and gather configuration and status for nodes within the SD-WAN fabric
B. distribute policies that govern data forwarding performed within the SD-WAN fabric
C. gather telemetry data from vEdge routers
D. onboard vEdge nodes into the SD-WAN fabric

Correct Answer: B
Section:

QUESTION 97
If the noise floor is -90 dBm and wireless client is receiving a signal of -75 dBm, what is the SNR?

A. 15
B. 1.2
C. -165
D. .83

Correct Answer: A
Section:

QUESTION 98

```
event snmp oid 1.3.6.1.4.1.9.9.109.1.1.1.3 get-type next entry-op gt entry-val 80 poll-interval 5
!
action 1.0 cli command "enable"
action 2.0 syslog msg "high cpu"
action 3.0 cli command "term length 0"
```

Refer to the exhibit. An engineer must create a script that appends the output of the show process cpu sorted command to a file.

A. action 4.0 syslog command "show process cpu sorted | append flash:high-cpu-file"
B. action 4.0 publish-event "show process cpu sorted | append flash:high-cpu-file"
C. action 4.0 ens-event "show process cpu sorted | append flash:high-cpu-file"
D. action 4.0 cli command "show process cpu sorted | append flash:high-cpu-file"

Correct Answer: D
Section:

QUESTION 99
Which two mechanisms are available to secure NTP? (Choose two.)

A. IP prefix list-based

B. IPsec

C. TACACS-based authentication

D. IP access list-based

E. Encrypted authentication

Correct Answer: D, E
Section:

QUESTION 100
What is the difference between CEF and process switching?

A. CEF processes packets that are too complex for process switching to manage.

B. CEF is more CPU-intensive than process switching.

C. CEF uses the FIB and the adjacency table to make forwarding decisions, whereas process switching punts each packet.

D. Process switching is faster than CEF.

Correct Answer: C
Section:

QUESTION 101
Which AP mode allows an engineer to scan configured channels for rogue access points?

A. sniffer

B. monitor

C. bridge

D. local

Correct Answer: B
Section:

QUESTION 102
What is a characteristic of MACsec?

A. 802.1AE provides encryption and authentication services

B. 802.1AE is bult between the host and switch using the MKA protocol, which negotiates encryption keys based on the master session key from a successful 802.1X session

C. 802.1AE is bult between the host and switch using the MKA protocol using keys generated via the Diffie-Hellman algorithm (anonymous encryption mode)

D. 802.1AE is negotiated using Cisco AnyConnect NAM and the SAP protocol

Correct Answer: B
Section:
Explanation:
MACsec, defined in 802.1AE, provides MAC-layer encryption over wired networks by using out-ofband methods for encryption keying. The MACsec Key Agreement (MKA) Protocol provides the required session keys and manages the required encryption keys. MKA and MACsec are implemented after successful authentication using the 802.1x Extensible Authentication Protocol (EAP-TLS) or Pre Shared Key (PSK) framework.
Reference: https://www.cisco.com/c/en/us/td/docs/switches/lan/catalyst9300/software/release/16-9/configuration_guide/sec/b_169_sec_9300_cg/macsec_encryption.html

QUESTION 103
Which method should an engineer use to deal with a long-standing contention issue between any two VMs on the same host?
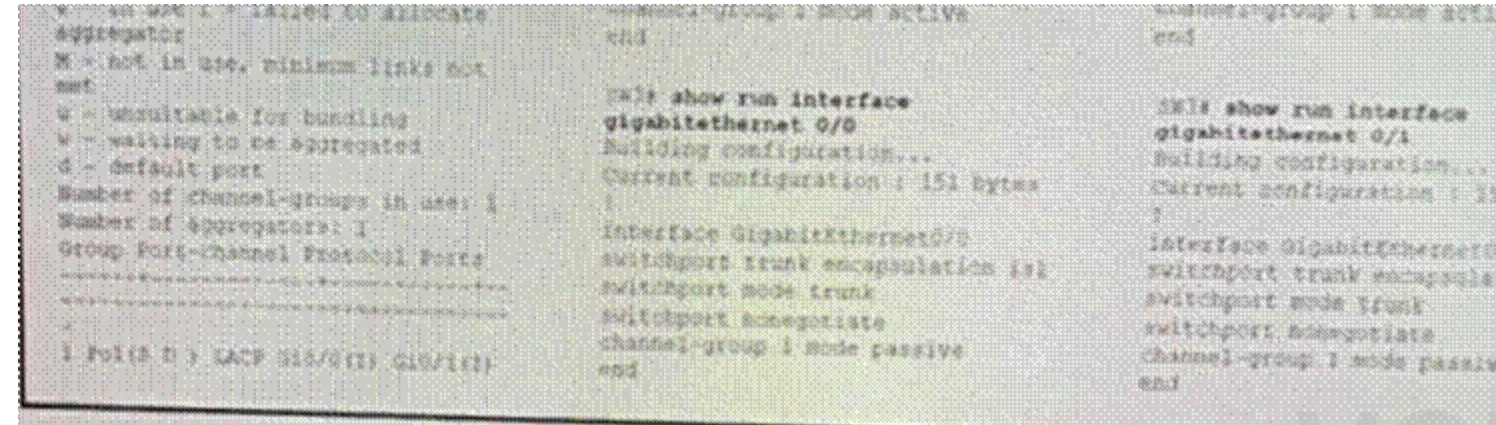
A. Adjust the resource reservation limits
B. Live migrate the VM to another host
C. Reset the VM
D. Reset the host

Correct Answer: A
Section:

QUESTION 104
Refer to the exhibit.

The EtherChannel between SW2 and SW3 is not operational which action resolves this issue?

A. Configure the channel-group mode on SW2 Gi0/1 and Gi0/1 to on.
B. Configure the channel-group mode on SW3 Gi0/1 to active
C. Configure the mode on SW2 Gi0/0 to trunk
D. Configure the mode on SW2 Gi0/1 to access.

Correct Answer: B
Section:

QUESTION 105

```
ip nat pool Internet 10.10.10.1 10.10.10.100 netmask 255.255.255.0
ip nat inside source route-map Users pool Internet
!
ip access-list standard Users
 10 permit 192.168.1.0 0.0.0.255
!
route-map Users permit 10
 match ip address Users
```

Refer to the exhibit. Which action completes the configuration to achieve a dynamic continuous mapped NAT for all users?

A. Configure a match-host type NAT pool
B. Reconfigure the pool to use the 192.168 1 0 address range
C. Increase the NAT pool size to support 254 usable addresses

D. Configure a one-to-one type NAT pool

Correct Answer: C
Section:

QUESTION 106
Refer to the exhibit.

```
SwitchC#show vtp status
VTP Version                     : 2
Configuration Revision          : 0
Maximum VLANs supported locally : 255
Number of existing VLANs        : 8
VTP Operating Mode              : Transparent
VTP Domain Name                 : cisco.com
VTP Pruning Mode                : Disabled
VTP V2 Mode                     : Disabled
VTP Traps Generation            : Disabled
MD5 digest                      : 0xE5 0x28 0x5D 0x3E 0x2F 0xE5 0xAD 0x2B
Configuration last modified by 0.0.0.0 at 1-10-19 09:01:38

SwitchC#show vlan brief

VLAN Name                        Status    Ports
---- ------------------------    --------- -------------------------------
1    default                     active    Fa0/3, Fa0/4, Fa0/5, Fa0/6
                                           Fa0/7, Fa0/8, Fa0/9, Fa0/10
                                           Fa0/11, Fa0/12, Fa0/13, Fa0/14
                                           Fa0/15, Fa0/16, Fa0/17, Fa0/18
                                           Fa0/19, Fa0/20, Fa0/21, Fa0/22
                                           Fa0/23, Fa0/24, Po1

110  Finance                     active
210  HR                          active    Fa0/1
310  Sales                       active    Fa0/2
[...output omitted...]

SwitchC#show int trunk
Port        Mode          Encapsulation  Status      Native vlan
Gig1/1      on            802.1q         trunking    1
Gig1/2      on            802.1q         trunking    1

Port        Vlans allowed on trunk
Gig1/1      1-1005
Gig1/2      1-1005

Port        Vlans allowed and active in management domain
Gig1/1      1,110,210,310
Gig1/2      1,110,210,310

Port        Vlans in spanning tree forwarding state and not pruned
Gig1/1      1,110,210,310
Gig1/2      1,110,210,310

SwitchC#show run interface port-channel 1
interface Port-channel 1
 description Uplink_to_Core
 switchport mode trunk
```

SwitchC connects HR and Sales to the Core switch However, business needs require that no traffic from the Finance VLAN traverse this switch Which command meets this requirement?

A.

SwitchC(config)#vtp pruning

B.

SwitchC(config)#vtp pruning vlan 110

C.

```
SwitchC(config)#interface port-channel 1
SwitchC(config-if)#switchport trunk allowed vlan add 210,310
```

D.

```
SwitchC(config)#interface port-channel 1
SwitchC(config-if)#switchport trunk allowed vlan remove 110
```

Correct Answer: D
Section:

QUESTION 107
An engineer configures HSRP group 37. The configuration does not modify the default virtual MAC address. Which virtual MAC address does the group use?

A. C0:00:00:25:00:00
B. 00:00:0c:07:ac:37
C. C0:39:83:25:258:5
D. 00:00:0c:07:ac:25

Correct Answer: D
Section:

QUESTION 108
An engineer has deployed a single Cisco 5520 WLC with a management IP address of 172.16.50.5/24.
The engineer must register 50 new Cisco AIR-CAP2802I-E-K9 access points to the WLC using DHCP option 43. The access points are connected to a switch in VLAN 100 that uses the 172.16.100.0/24 subnet. The engineer has configured the DHCP scope on the switch as follows:

```
Network 172.16.100.0 255.255.255.0
Default Router 172.16.100.1
Option 43 Ascii 172.16.50.5
```

The access points are failing to join the wireless LAN controller. Which action resolves the issue?

A. configure option 43 Hex F104.AC10.3205
B. configure option 43 Hex F104.CA10.3205
C. configure dns-server 172.16.50.5
D. configure dns-server 172.16.100.1

Correct Answer: A
Section:
Explanation:
The Option 43 hexadecimal string is assembled as a sequence of the TLV values for the Option 43 suboption: Type + Length + Value. Type is always the suboption code 0xf1. Length is the number of controller management IP addresses times 4 in hex. Value is the IP address of the controller listed sequentially in hex.
On this question, there is 1 controller with management interface IP addresses 172.16.50.5/24. The type is 0xf1. The length is 1 * 4 = 8 = 0x04. The mgmt IP addresses 172.16.50.5 translate to ac.10.32.05 (0xac103205). When the string is assembled, it yields f108c0a80a05c0a80a14. The Cisco IOS command that is added to the DHCP scope is: option 43 hex f104ac103205

QUESTION 109
Refer to the exhibit.

```
access-list 100 permit gre host 209.165.201.1 host 209.165.201.6

crypto isakmp policy 5
authentication pre-share
hash sha256
encryption aes
group 14

crypto isakmp key D@t@c3nt3r address 209.165.201.6

crypto ipsec transform-set My_Set esp-aes esp-sha-hmac
mode transport

crypto map MAP 10 ipsec-isakmp
 set peer 209.165.201.6
 set transform-set My_Set
 match address 100

interface GigabitEthernet0/0
description outside_interface
 no switchport
 ip address 209.165.201.1 255.255.255.252
 crypto map MAP

interface Tunnel100
ip address 192.168.100.1 255.255.255.0
ip mtu 1400
tunnel source GigabitEthernet0/0
tunnel destination 209.165.201.6

ip route 10.20.0.0 255.255.255.0 192.168.100.2 Tunnel100
```

```
access-list 100 permit gre host 209.165.201.6 host 209.165.201.1

crypto isakmp policy 5
authentication pre-share
hash sha256
encryption aes
group 14

crypto isakmp key D@t@c3nt3 address 209.165.201.1

crypto ipsec transform-set My_Set esp-aes esp-sha-hmac
mode transport

crypto map MAP 10 ipsec-isakmp
 set peer 209.165.201.1
 set transform-set My_Set
 match address 100

interface GigabitEthernet0/1
description outside_interface
 no switchport
 ip address 209.165.201.6 255.255.255.252
 crypto map MAP

interface Tunnel100
ip address 192.168.100.2 255.255.255.0
ip mtu 1400
tunnel source GigabitEthernet0/1
tunnel destination 209.165.201.1

ip route 10.10.0.0 255.255.255.0 192.168.100.1 Tunnel100
```



```
                    R1                          R2
10.10.0.0/24  [R1]=========IPSEC========[R2]  10.20.0.0/24
              Gi0/0                     Gi0/1
          209.165.201.1/30        209.165.201.6/30
```

A network engineer must simplify the IPsec configuration by enabling IPsec over GRE using IPsec profiles. Which two configuration changes accomplish this? (Choose two).

A. Create an IPsec profile, associate the transform-set ACL, and apply the profile to the tunnel interface.
B. Apply the crypto map to the tunnel interface and change the tunnel mode to tunnel mode ipsec ipv4.
C. Remove all configuration related to crypto map from R1 and R2 and eliminate the ACL.
D. Create an IPsec profile, associate the transform-set, and apply the profile to the tunnel interface.
E. Remove the crypto map and modify the ACL to allow traffic between 10.10.0.0/24 to 10.20.0.0/24.

Correct Answer: C, D
Section:

QUESTION 110
How does a fabric AP fit in the network?

A. It is in local mode and must be connected directly to the fabric border node
B. It is in FlexConnect mode and must be connected directly to the fabric edge switch.
C. It is in FlexConnect mode and must be connected directly to the fabric border node

D. It is in local mode and must be connected directly to the fabric edge switch.

Correct Answer: D
Section:

QUESTION 111
Refer to the exhibit.

```
vlan 222
  remote-span
!
vlan 223
  remote-span
!
monitor session 1 source interface FastEthernet0/1 tx
monitor session 1 source interface FastEthernet0/2 rx
monitor session 1 source interface port-channel 5
monitor session 1 destination remote vlan 222
!
```

What is the result when a technician adds the monitor session 1 destination remote vlan 223 command1?

A. The RSPAN VLAN is replaced by VLAN 223.
B. RSPAN traffic is sent to VLANs 222 and 223
C. An error is flagged for configuring two destinations.
D. RSPAN traffic is split between VLANs 222 and 223.

Correct Answer: A
Section:

QUESTION 112
How are map-register messages sent in a LISP deployment?

A. egress tunnel routers to map resolvers to determine the appropriate egress tunnel router
B. ingress tunnel routers to map servers to determine the appropriate egress tunnel router
C. egress tunnel routers to map servers to determine the appropriate egress tunnel router
D. ingress tunnel routers to map resolvers to determine the appropnate egress tunnel router

Correct Answer: C
Section:
Explanation:
During operation, an Egress Tunnel Router (ETR) sends periodic Map-Register messages to all its configured map servers.

QUESTION 113
Refer to the exhibit.

```
Switch1# show interfaces trunk
! Output omitted for brevity
Port Mode Encapsulation Status Native
Gi1/0/20 auto 802.1q trunking 10


Port Vlans allowed on trunk
Gi1/0/20 1-4094


Switch2# show interfaces trunk
! Output omitted for brevity
Port Mode Encapsulation Status Native
Gi1/0/20 auto 802.1q trunking 10


Port Vlans allowed on trunk
Gi1/0/20 1-4094
```

The trunk does not work over the back-to-back link between Switch1 interface Giq1/0/20 and Switch2 interface Gig1/0/20. Which configuration fixes the problem?

A.

```
Switch1(config)#interface gig1/0/20
Switch1(config-if)#switchport mode dynamic auto
```

B.

```
Switch2(config)#interface gig1/0/20
Switch2(config-if)#switchport mode dynamic desirable
```

C.

```
Switch1(config)#interface gig1/0/20
Switch1(config-if)#switchport trunk native vlan 1
Switch2(config)#interface gig1/0/20
Switch2(config-if)#switchport trunk native vlan 1
```

D.

```
Switch2(config)#interface gig1/0/20
Switch2(config-if)#switchport mode dynamic auto
```

Correct Answer: B
Section:

QUESTION 114
Based on the router's API output in JSON format below, which Python code will display the value of the "hostname" key?

```
{
    "response": [{
        "family": "Switches",
        "macAddress": "00:41:43:64:13:00",
        "hostname": "SwitchIDF14",
        "upTime": "352 days, 6:17:26:10",
        "lastUpdated": "2020-07-12 21:15:29"
    }]
}
```

A.

```
json_data = json.loads(response.text)
print(json_data[response][0][hostname])
```

B.

```
json_data = response.json()
print(json_data['response'][0]['hostname'])
```

C.

```
json_data = response.json()
print(json_data['response'][family][hostname'])
```

D.

```
json_data = json.loads(response.text)
print(json_data['response']['family']['hostname'])
```

Correct Answer: D
Section:

QUESTION 115
Refer to the exhibit.

```
Switch1#show lacp internal
Flags:  S - Device is requesting Slow LACPDUs
        F - Device is requesting Fast LACPDUs
        A - Device is in Active mode        P - Device is in Passive mode

Channel group 1
                          LACP port    Admin   Oper   Port      Port
Port      Flags  State    Priority     Key     Key    Number    State
Gi0/0     SP     hot-sby  20           0x1     0x1    0x1       0x5
Gi0/1     SA     bnd1     15           0x1     0x1    0x2       0x3C
```

An engineer attempts to bundle interface GiO/0 into the port channel, but it does not function as expected. Which action resolves the issue?

A. Configure channel-group 1 mode active on interface Gi0/0.
B. Configure no shutdown on interface Gi0/0
C. Enable fast LACP PDUs on interface Gi0/0.
D. Set LACP max-bundle to 2 on interface Port-channeM

Correct Answer: D
Section:

QUESTION 116
Refer to the exhibit.

```
10.0.32.0/24
10.0.33.0/24
10.0.34.0/24
10.0.35.0/24
10.0.36.0/24
10.0.37.0/24
10.0.38.0/24
10.0.39.0/24
```

An engineer must permit traffic from these networks and block all other traffic An informational log message should be triggered when traffic enters from these prefixes Which access list must be used?

A. access-list acl_subnets permit ip 10.0.32.0 0 0.0.255 log

B. access-list acl_subnets permit ip 10.0.32.0 0.0.7.255 log

C. access-list acl_subnets permit ip 10.0.32.0 0.0.7.255 access-list acl_subnets deny ip any log

D. access-list acl_subnets permit ip 10.0.32.0 255.255.248.0 log

Correct Answer: B
Section:

QUESTION 117

Refer to the exhibit.

```
headers = {
    'Accept': 'application/yang-data+json',
    'Content-Type': 'application/yang-data+json'
},
data = json.dumps({
    'Cisco-IOS-XE-native:GigabitEthernet': {
        'ip': {
            'address': {
                'primary': {
                    'address': '10.10.10.1',
                    'mask': '255.255.255.0'
                }
            }
        }
    }
}),
verify = False)

# Print the HTTP response code
print('Response Code: ' + str(response.status_code))
```

After the code is run on a Cisco IOS-XE router, the response code is 204.

What is the result of the script?

A. The configuration fails because another interface is already configured with IP address 10.10.10.1/24.
B. The configuration fails because interface GigabitEthernet2 is missing on the target device.
C. The configuration is successfully sent to the device in cleartext.
D. Interface GigabitEthernet2 is configured with IP address 10.10.10.1/24

Correct Answer: D
Section:

QUESTION 118
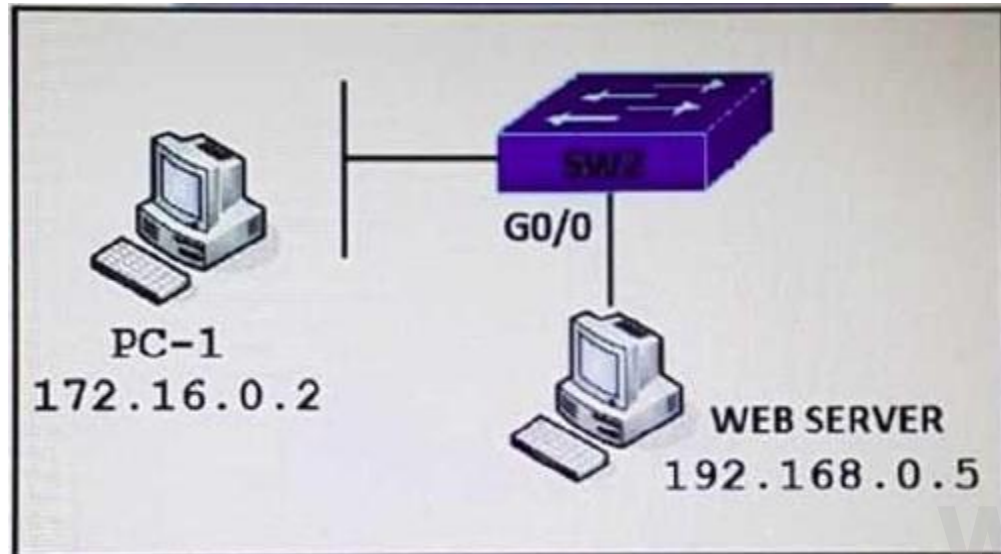
Refer to the exhibit. PC-1 must access the web server on port 8080. To allow this traffic, which statement must be added to an access control list that is applied on SW2 port G0/0 in the inbound direction?

A. permit host 172.16.0.2 host 192.168.0.5 eq 8080
B. permit host 192.168.0.5 host 172.16.0.2 eq 8080
C. permit host 192.168.0.5 eq 8080 host 172.16.0.2
D. permit host 192.168.0.5 it 8080 host 172.16.0.2

Correct Answer: C
Section:
Explanation:
The inbound direction of G0/0 of SW2 only filter traffic from Web Server to PC-1 so the source IP address and port is of the Web Server.

QUESTION 119
Refer to the exhibit.
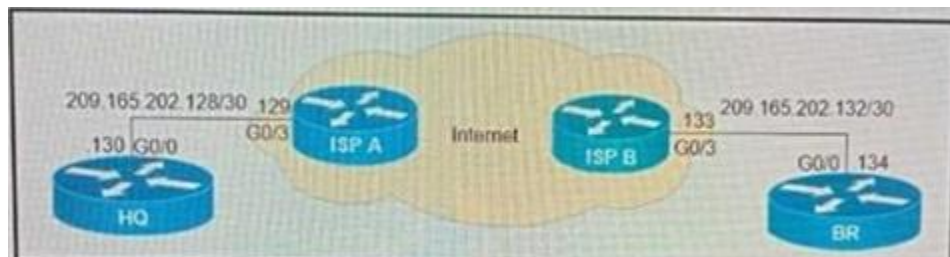
What is the effect of these commands on the BR and HQ tunnel interfaces?

```
BR(config)#interface tunnel1
BR(config-if)#keepalive 5 3

HQ(config)#interface tunnel1
HQ(config-if)#keepalive 5 3
```

A. The tunnel line protocol goes down when the keepalive counter reaches 6

B. The keepalives are sent every 5 seconds and 3 retries

C. The keepalives are sent every 3 seconds and 5 retries

D. The tunnel line protocol goes down when the keepalive counter reaches 5

Correct Answer: B
Section:

QUESTION 120
What is the function of cisco DNA center in a cisco SD-access deployment?

A. It is responsible for routing decisions inside the fabric

B. It is responsible for the design, management, deployment, provisioning and assurance of the fabric network devices.

C. It possesses information about all endpoints, nodes and external networks related to the fabric

D. It provides integration and automation for all nonfabric nodes and their fabric counterparts.

Correct Answer: B
Section:

QUESTION 121
A network administrator is implementing a routing configuration change and enables routing debugs to track routing behavior during the change. The logging output on the terminal is interrupting the command typing process. Which two actions can the network administrator take to minimize the possibility of typing commands incorrectly? (Choose two.)

A. Configure the logging synchronous global configuration command

B. Configure the logging delimiter feature

C. Configure the logging synchronous command under the vty

D. Press the TAB key to reprint the command in a new line

E. increase the number of lines on the screen using the terminal length command

Correct Answer: C, D
Section:

QUESTION 122
How cloud deployments differ from on-prem deployments?

A. Cloud deployments require longer implementation times than on-premises deployments

B. Cloud deployments are more customizable than on-premises deployments.

C. Cloud deployments require less frequent upgrades than on-premises deployments.

D. Cloud deployments have lower upfront costs than on-premises deployments.

Correct Answer: C
Section:

QUESTION 123
AN engineer is implementing a route map to support redistribution within BGP. The route map must configured to permit all unmatched routes. Which action must the engineer perform to complete this task?

A. Include a permit statement as the first entry
B. Include at least one explicit deny statement
C. Remove the implicit deny entry
D. Include a permit statement as the last entry

Correct Answer: D
Section:

QUESTION 124
Which HHTP status code is the correct response for a request with an incorrect password applied to a REST API session?

A. HTTP Status Code 200
B. HTTP Status Code 302
C. HTTP Status Code 401
D. HTTP Status Code: 504

Correct Answer: C
Section:
Explanation:
A 401 error response indicates that the client tried to operate on a protected resource without providing the proper authorization. It may have provided the wrong credentials or none at all.
Note: answer 'HTTP Status Code 200' 4xx code indicates a "client error" while a 5xx code indicatesa "server error".
Reference: https://restfulapi.net/http-status-codes/

QUESTION 125
What does the LAP send when multiple WLCs respond to the CISCO_CAPWAPCONTROLLER. localdomain hostname during the CAPWAP discovery and join process?

A. broadcast discover request
B. join request to all the WLCs
C. unicast discovery request to each WLC
D. Unicast discovery request to the first WLS that resolves the domain name

Correct Answer: D
Section:

QUESTION 126
A customer requests a design that includes GLBP as the FHRP The network architect discovers that the members of the GLBP group have different throughput capabilities Which GLBP load balancing method supports this environment?

A. host dependent
B. least connection

C. round robin

D. weighted

Correct Answer: D
Section:
Explanation:
Weighted: Defines weights to each device in the GLBP group to define the ratio of load balancing between the devices. This allows for a larger weight to be assigned to bigger routers that can handle more traffic. protocol is used by an extended

QUESTION 127
In a Cisco SD-WAN solution, which two functions are performed by OMP? (Choose two.)

A. advertisement of network prefixes and their attributes

B. configuration of control and data policies

C. gathering of underlay infrastructure data

D. delivery of crypto keys

E. segmentation and differentiation of traffic

Correct Answer: A, B
Section:
Explanation:
OMP is the control protocol that is used to exchange routing, policy, and management information between Cisco vSmart Controllers and Cisco IOS XE SD-WAN devices in the overlay network. These devices automatically initiate OMP peering sessions between themselves, and the two IP end points of the OMP session are the system IP addresses of the two devices.

QUESTION 128
What are two benefits of virtual switching when compared to hardware switching? (Choose two.)

A. increased MTU size

B. hardware independence

C. VM-level isolation

D. increased flexibility

E. extended 802.1Q VLAN range

Correct Answer: C, D
Section:

QUESTION 129
which entity is a Type 1 hypervisor?

A. Oracle VM VirtualBox

B. VMware server

C. Citrix XenServer

D. Microsoft Virtual PC

Correct Answer: C
Section:

QUESTION 130

```
DSW1#sh spanning-tree int fa1/0/7

Vlan                Role Sts Cost      Prio.Nbr Type
------------------  ---- --- --------  -------- ---------------
VLAN0001            Desg FWD 2         128.9    P2p Edge
VLAN0010            Desg FWD 2         128.9    P2p Edge
VLAN0020            Desg FWD 2         128.9    P2p Edge
VLAN0030            Desg FWD 2         128.9    P2p Edge
VLAN0040            Desg FWD 2         128.9    P2p Edge
```

Refer to the exhibit How was spanning-tree configured on this interface?

A. By entering the command spanning-tree portfast trunk in the interface configuration mode.

B. By entering the command spanning-tree portfast in the interface configuration mode

C. By entering the command spanning-tree mst1 vlan 10,20,30,40 in the global configuration mode

D. By entering the command spanning-tree vlan 10,20,30,40 root primary in the interface configuration mode

Correct Answer: A
Section:

QUESTION 131
What is a characteristic of a next-generation firewall?

A. only required at the network perimeter

B. required in each layer of the network

C. filters traffic using Layer 3 and Layer 4 information only

D. provides intrusion prevention

Correct Answer: D
Section:
Explanation:
The feature set for NGFWs build upon traditional firewall features by including critical security functions like intrusion prevention, VPN, and anti-virus, and even encrypted web traffic inspection to help prevent packets containing malicious content from entering the network

QUESTION 132
which features does Cisco EDR use to provide threat detection and response protection?

A. containment, threat intelligence, and machine learning

B. firewalling and intrusion prevention

C. container-based agents

D. cloud analysis and endpoint firewall controls

Correct Answer: B
Section:

QUESTION 133
Refer to the exhibit.
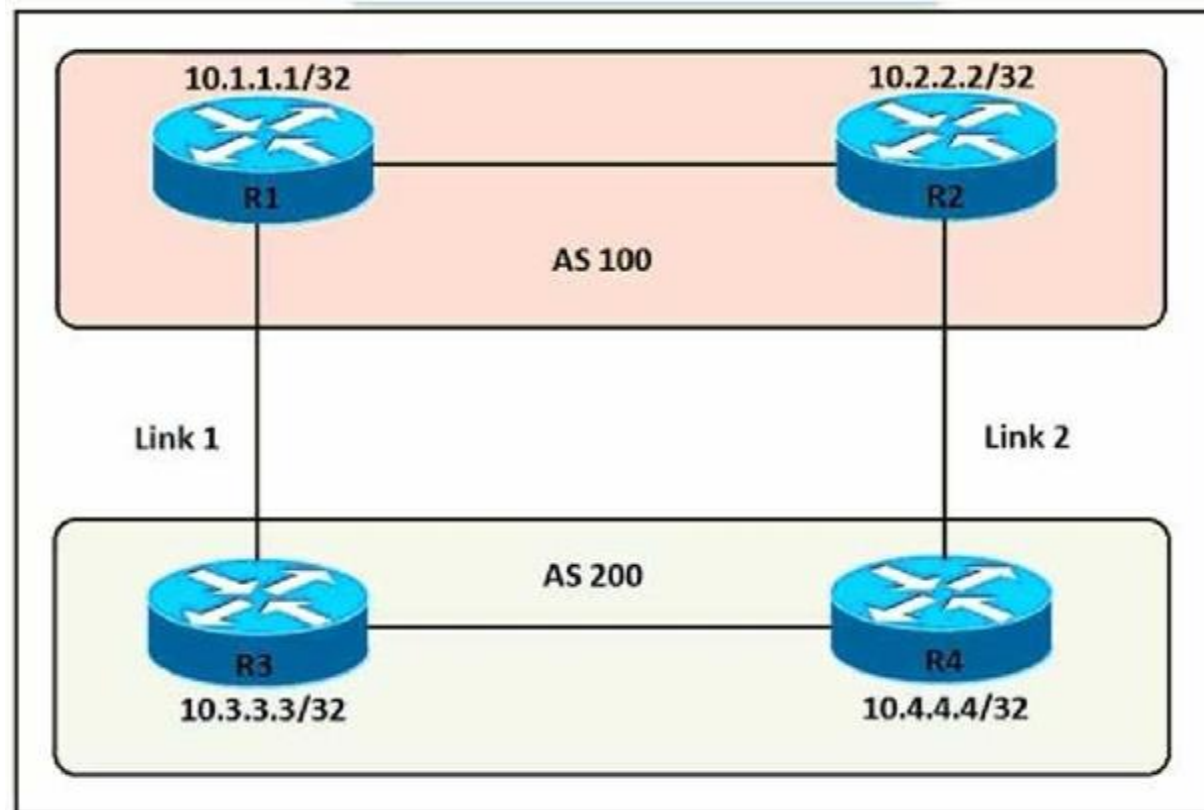
An engineer must ensure that all traffic leaving AS 200 will choose Link 2 as an entry point. Assuming that all BGP neighbor relationships have been formed and that the attributes have not been changed on any of the routers, which configuration accomplish task?

```
R3(config)#route-map PREPEND permit 10
R3(config-route-map)#set as-path prepend 200 200 200

R3(config)#router bgp 200
R3(config-router)#neighbor 10.1.1.1 route-map PREPEND out

R4(config)#route-map PREPEND permit 10
R4(config-route-map)#set as-path prepend 100 100 100

R4(config)#router bgp 200
R4(config-router)#neighbor 10.2.2.2 route-map PREPEND in

R3(config)#route-map PREPEND permit 10
R3(config-route-map)#set as-path prepend 100 100 100

R3(config)#router bgp 200
R3(config-router)#neighbor 10.1.1.1 route-map PREPEND in

R4(config)#route-map PREPEND permit 10
R4(config-route-map)#set as-path prepend 200 200 200

R4(config)#router bgp 200
R4(config-router)#neighbor 10.2.2.2 route-map PREPEND out
```

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

Correct Answer: A
Section:

Explanation:
R3 advertises BGP updates to R1 with multiple AS 100 so R3 believes the path to reach AS 200 via R3 is farther than R2 so R3 will choose R2 to forward traffic to AS 200.

QUESTION 134
A network engineer is enabling HTTPS access to the core switch, which requires a certificate to beinstalled on the switch signed by the corporate certificate authority Which configuration commandsare required to issue a certificate signing request from the core switch?

A.
```
Core-Switch(config)#crypto pki enroll Core-Switch
Core-Switch(config)#ip http secure-trustpoint Core-Switch
```

B.
```
Core-Switch(config)#crypto pki trustpoint Core-Switch
Core-Switch(ca-trustpoint)#enrollment terminal
Core-Switch(config)#crypto pki enroll Core-Switch
```

C.
```
Core-Switch(config)#crypto pki trustpoint Core-Switch
Core-Switch(ca-trustpoint)#enrollment terminal
Core-Switch(config)#ip http secure-trustpoint Core-Switch
```

D.
```
Core-Switch(config)#ip http secure-trustpoint Core-Switch
Core-Switch(config)#crypto pki enroll Core-Switch
```

Correct Answer: B
Section:
Explanation:
Certificate authorities (CAs) are responsible for managing certificate requests and issuing certificates to participating IPSec network devices. These services provide centralized security key and certificate management for the participating devices. Specific CA servers are referred to as "trustpoints." The command "crypto pki trustpoint name" declares the trustpoint and a given name and enters catrustpoint configuration mode.
The command "enrollment terminal" specifies manual cut-and-paste certificate enrollment method.
The certificate request will be displayed on the console terminal so that you may manually copied (or cut).
The command "crypto pki enroll name" generates certificate request and displays the request for copying and pasting into the certificate server.
The full configuration is shown in the reference below.
Reference: https://www.cisco.com/c/en/us/td/docs/ios/ios_xe/sec_secure_connectivity/configuration/guide/convert/sec_pki_xe_3s_book/sec_cert_enroll_pki_xe.html

QUESTION 135
What is the process for moving a virtual machine from one host machine to another with no downtime?

A. high availability
B. disaster recovery
C. live migration
D. multisite replication

Correct Answer: C
Section:

QUESTION 136
When are multicast RPs required?

A. RPs are required only when using protocol independent multicast dense mode.
B. By default, the RP is needed penodically to maintain sessions with sources and receivers.
C. RPs are required for protocol Independent multicast sparse mode and dense mode.
D. By default, the RP Is needed only start new sessions with sources and receivers.

Correct Answer: D
Section:

QUESTION 137
An engineer must create a new SSID on a Cisco 9800 wireless LAN controller. The client has asked to use a pre-shared key for authentication Which profile must the engineer edit to achieve this requirement?

A. RF
B. Policy
C. WLAN
D. Flex

Correct Answer: B
Section:
Explanation:
https://www.cisco.com/c/en/us/support/docs/wireless-mobility/wireless-lan-wlan/116880-configwpa2-psk-00.html

QUESTION 138
A vulnerability assessment highlighted that remote access to the switches is permitted using unsecure and unencrypted protocols Which configuration must be applied to allow only secure and reliable remote access for device administration?

A. line vty 0 15 login local transport input none
B. line vty 0 15 login local transport input telnet ssh
C. line vty 0 15 login local transport input ssh
D. line vty 0 15 login local transport input all

Correct Answer: C
Section:

QUESTION 139
Refer to the exhibit.

```
DSW1#sh spanning-tree vlan 20

VLAN0020
  Spanning tree enabled protocol ieee
  Root ID    Priority    24596
             Address     0018.7363.4300
             Cost        2
             Port        13 (FastEthernet1/0/11)
             Hello Time   2 sec  Max Age 20 sec  Forward Delay 15 sec

  Bridge ID  Priority    28692  (priority 28672 sys-id-ext 20)
             Address     001b.0d5e.e080
             Hello Time   2 sec  Max Age 20 sec  Forward Delay 15 sec
             Aging Time 300


Interface           Role Sts Cost       Prio.Nbr Type
---------------     ---- --- ---------  -------- --------------------------------
Fa1/0/7             Desg FWD 2           128.9    P2p
Fa1/0/10            Desg FWD 2           128.12   P2p
Fa1/0/11            Root FWD 2           128.13   P2p
Fa1/0/12            Altn BLK 2           128.14   P2p
```

What does the output confirm about the switch's spanning tree configuration?

A. The spanning-tree mode stp ieee command was entered on this switch
B. The spanning-tree operation mode for this switch is IEEE.
C. The spanning-tree operation mode for this switch is PVST+.
D. The spanning-tree operation mode for this switch is PVST

Correct Answer: C
Section:

QUESTION 140
What are two common sources of interference for Wi-Fi networks? (Choose two.)

A. rogue AP
B. conventional oven
C. fire alarm
D. LED lights
E. radar

Correct Answer: A, E
Section:

QUESTION 141
Refer to the exhibit.

```
R2#show standby
FastEthernet1/0 - Group 40
   State is Standby
      4 state changes, last state change 00:01:51
   Virtual IP address is 10.10.1.1
   Active virtual MAC address is 0000.0c07.ac28 (MAC Not In Use)
      Local virtual MAC address is 0000.0c07.ac28 (v1 default)
   Hello time 3 sec, hold time 10 sec
      Next hello sent in 1.856 secs
   Preemption disabled
   Active router is 10.10.1.3, priority 85 (expires in 8.672 sec)
   Standby router is local
   Priority 90 (configured 90)
      Track interface FastEthernet0/0 state Up decrement 10
   Group name is "hsrp-Fa1/0-40" (default)
```

After configuring HSRP an engineer enters the show standby command. Which two facts are derived from the output? (Choose two.)

A. The router with IP 10.10 1.3 is active because it has a higher IP address
B. If Fa0/0 is shut down, the HSRP priority on R2 becomes 80
C. R2 Fa1/0 regains the primary role when the link comes back up
D. R2 becomes the active router after the hold time expires.
E. R2 is using the default HSRP hello and hold timers.

Correct Answer: D, E
Section:

QUESTION 142
If a client's radio device receives a signal strength of -67 dBm and the noise floor is -85 dBm, what is the SNR value?

A. 15 dB
B. 16 dB
C. 18 dB
D. 20 dB

Correct Answer: C
Section:

QUESTION 143
Refer to the exhibit.

```
    Hello due in 00:00:07
Supports Link-local Signaling (LLS)
Cisco NSF helper support enabled
IETF NSF helper support enabled
Index 1/2/2, flood queue length 0
Next 0x0(0)/0x0(0)/0x0(0)
Last flood scan length is 0, maximum is 0
Last flood scan time is 1 msec, maximum is 1 msec
Neighbor Count is 0, Adjacent neighbor count is 0
Suppress hello for 0 neighbor(s)
```

An engineer configures OSPF and wants to verify the configuration Which configuration is applied to this device?

A.

```
R1(config)#router ospf 1
R1(config-router)#network 192.168.50.0 0.0.0.255 area 0
```

B.

```
R1(config)#router ospf 1
R1(config-router)#network 0.0.0.0 0.0.0.0 area 0
R1(config-router)#no passive-interface Gi0/1
```

C.

```
R1(config)#interface Gi0/1
R1(config-if)#ip ospf enable
R1(config-if)#ip ospf network broadcast
R1(config-if)#no shutdown
```

D.

```
R1(config)#interface Gi0/1
R1(config-if)#ip ospf 1 area 0
R1(config-if)#no shutdown
```

Correct Answer: C
Section:

QUESTION 144
A network monitoring system uses SNMP polling to record the statistics of router interfaces The SNMP queries work as expected until an engineer installs a new interface and reloads the router After this action, all SNMP queries for the router fail What is the cause of this issue?

A. The SNMP community is configured incorrectly

B. The SNMP interface index changed after reboot.

C. The SNMP server traps are disabled for the interface index

D. The SNMP server traps are disabled for the link state.

Correct Answer: B
Section:

QUESTION 145
In a Cisco SD-Access solution, which protocol is used by an extended node to connect to a single edge node?

A. VXLAN

B. IS-IS

C. 802 1Q

D. CTS

Correct Answer: C
Section:
Explanation:
SD-Access Extended Nodes provide the ability to extend the enterprise network by providing connectivity to non-carpeted spaces of an enterprise – commonly called the Extended Enterprise.
This allows network connectivity and management of IoT devices and the deployment of traditional enterprise end devices in outdoor and non-carpeted environments such as distribution centers, warehouses, or Campus parking lots.
This feature extends consistent, policy-based automation to Cisco Industrial Ethernet, Catalyst 3560- CX Compact, and Digital Building Series switches and enables segmentation for user endpoints and IoT devices connected to these nodes. Using Cisco DNA Center automation, switches in the extended node role are onboarded to their connected edge node using an 802.1Q trunk over an EtherChannel with one or multiple physical link members.
Extended nodes are discovered using zero-touch Plugand- Play.
Reference: https://www.cisco.com/c/en/us/td/docs/solutions/CVD/Campus/cisco-sda-designguide.html#Network_Components

QUESTION 146

An engineer must enable a login authentication method that allows a user to log in by using local authentication if all other defined authentication methods fail Which configuration should be applied?

A. aaa authentication login CONSOLE group radius local-case enable aaa

B. authentication login CONSOLE group radius local enable none

C. aaa authentication login CONSOLE group radius local enable

D. aaa authentication login CONSOLE group tacacs+ local enable

Correct Answer: D
Section:

QUESTION 147

Refer to the exhibit.

```
>>> netconf_data["GigabitEthernet"][0]["enabled"]
u'false'
>>> netconf_data["GigabitEthernet"][1]["enabled"]
u'true'
>>> netconf_data["GigabitEthernet"][2]["enabled"]
u'false'
>>> netconf_data["GigabitEthernet"][0]["description"]
u'my description'
```

Which Python code snippet prints the descriptions of disabled interfaces only?

A.

```
for interface in netconf_data["GigabitEthernet"]:
    if interface["disabled"] != 'true':
        print(interface["description"])
```

B.

```
for interface in netconf_data["GigabitEthernet"]:
        print(interface["enabled"])
        print(interface["description"])
```

C.

```
for interface in netconf_data["GigabitEthernet"]:
        if interface["enabled"] != 'false':
                print(interface["description"])
```

D.

```
for interface in netconf_data["GigabitEthernet"]:
        if interface["enabled"] != 'true':
                print(interface["description"])
```

Correct Answer: D
Section:

QUESTION 148
When firewall capabilities are considered, which feature is found only in Cisco next-generation firewalls?

A. malware protection
B. stateful inspection
C. traffic filtering
D. active/standby high availability

Correct Answer: A
Section:

QUESTION 149
What does a northbound API accomplish?

A. programmatic control of abstracted network resources through a centralized controller
B. access to controlled network resources from a centralized node
C. communication between SDN controllers and physical switches
D. controlled access to switches from automated security applications

Correct Answer: A
Section:

QUESTION 150
Refer to the exhibit.
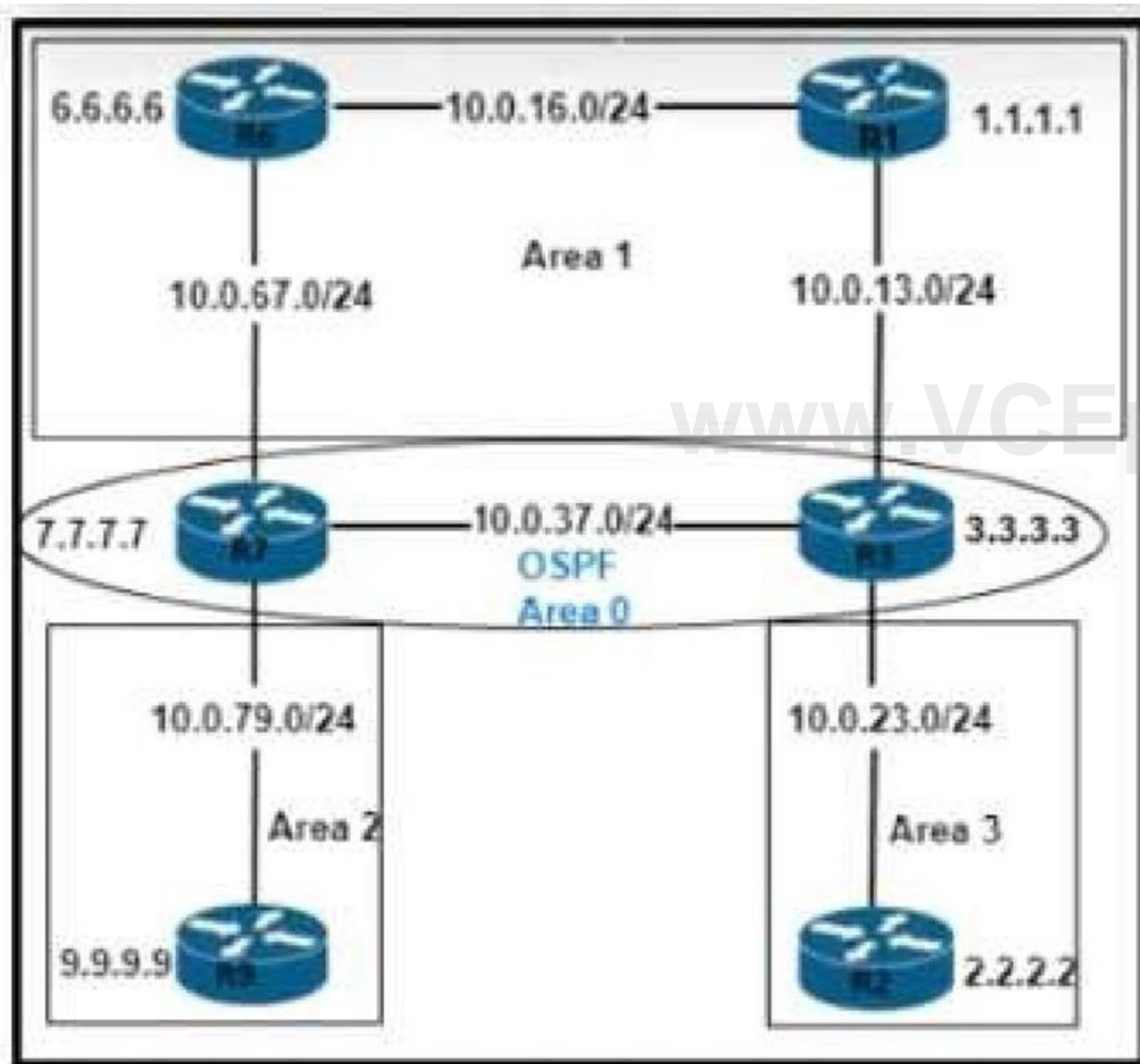
An engineer must prevent the R6 loopback from getting into Area 2 and Area 3 from Area 0 Which action must the engineer take?

A. Apply a fitter list inbound on R2 and R9

B. Apply a filter list outbound on R3 and R7

C. Apply a filter list outbound on R7 only.

D. Apply a filter list inbound on R3 and R7

Correct Answer: B
Section:
Explanation:
This question asks to prevent route advertised into Area 2 and Area 3 only. It does not ask to prevent route advertised into Area 0 so applying a filter list outbound on R3 and R7 would best fit the requirement.

QUESTION 151
Refer to the exhibit.

```
SW2(config)# track 1000 interface gigabitEthernet 0/0 line-protocol
SW2(config-track)# exit
SW2(config)# interface vlan 1000
SW2(config-if)# ip address 10.23.87.3 255.255.255.0
```

An engineer must configure HSRP for VLAN 1000 on SW2. The secondary switch must immediately take over the role of active router If the interlink with the primary switch fails. Which command set completes this task?

A.

```
SW2(config-if)# standby version 2
SW2(config-if)# standby 1000 ip 10.23.87.1
SW2(config-if)# standby 1000 priority 95
SW2(config-if)# standby 1000 preempt
SW2(config-if)# standby 1000 track gigabitethernet0/0
```

B.

```
SW2(config-if)# standby 1000 ip 10.23.87.1
SW2(config-if)# standby 1000 priority 95
SW2(config-if)# standby 1000 preempt
SW2(config-if)# standby 1000 track 1000
```

C.

```
SW2(config-if)# standby version 2
SW2(config-if)# standby 1000 ip 10.23.87.1
SW2(config-if)# standby 1000 priority 95
SW2(config-if)# standby 1000 preempt
SW2(config-if)# standby 1000 track 1000
```

D.

```
SW2(config-if)# standby version 2
SW2(config-if)# standby 1000 ip 10.23.87.1
SW2(config-if)# standby 1000 priority 95
SW2(config-if)# standby 1000 track 1000
```

Correct Answer: C
Section:

QUESTION 152
Refer to the exhibit.


```
ISP#2#
Jan  4 11:34:10.819: %TCP-6-BADAUTH: No MD5 digest from 10.1.65.2(179) to 10.1.65.1(59608) tableid - 0
Jan  4 11:34:10.847: %BGP-5-ADJCHANGE: neighbor 10.33.1.1 Up
Jan  4 11:34:12.831: %TCP-6-BADAUTH: No MD5 digest from 10.1.65.2(179) to 10.1.65.1(59608) tableid - 0
Jan  4 11:34:12.839: %TCP-6-BADAUTH: No MD5 digest from 10.1.65.2(179) to 10.1.65.1(59608) tableid - 0
Jan  4 11:34:22.271: %TCP-6-BADAUTH: No MD5 digest from 10.1.65.2(61827) to 10.1.65.1(179) tableid - 0
Jan  4 11:34:24.259: %TCP-6-BADAUTH: No MD5 digest from 10.1.65.2(61827) to 10.1.65.1(179) tableid - 0
Jan  4 11:34:26.187: %TCP-6-BADAUTH: No MD5 digest from 10.1.65.2(179) to 10.1.65.1(31266) tableid — 0
```

An engineer attempts to establish BGP peering between router CORP and two ISP routers. What is the root cause for the failure between CORP and ISP#2?

A. Router ISP#2 is configured to use SHA-1 authentication.
B. There is a password mismatch between router CORP and router ISP#2.
C. Router CORP is configured with an extended access control list.
D. MD5 authorization is configured incorrectly on router ISP#2.

Correct Answer: B
Section:

QUESTION 153
In which two ways does TCAM differ from CAM? (Choose two.)

A. CAM is used to make Layer 2 forwarding decisions, and TCAM is used for Layer 3 address lookups.
B. The MAC address table is contained in CAM, and ACL and QoS Information Is stored in TCAM.
C. CAM Is used by routers for IP address lookups, and TCAM is used to make Layer 2 forwarding decisions.
D. CAM is used for software switching mechanisms, and TCAM Is used for hardware switching mechanisms.
E. The MAC address table Is contained in TCAM, and ACL and QoS information is stored in CAM.

Correct Answer: C, E
Section:

QUESTION 154
What are two benefits of implementing a Cisco SD-WAN architecture? (Choose two)

A. It provides resilient and effective traffic flow using MPLS.
B. It improves endpoint protection by integrating embedded and cloud security features.
C. It allows configuration of application-aware policies with real time enforcement.
D. It simplifies endpoint provisioning through standalone router management

E.   It enforces a single. scalable. hub-and-spoke topology.

Correct Answer: C, D
Section:
Explanation:
The top SD-WAN benefits are:
+ Increased bandwidth at a lower cost
+ Centralized management across branch networks
+ Full visibility into the network
+ Providing organizations with more connection type options and vendor selection when building a network.
Reference: https://www.sdxcentral.com/networking/sd-wan/definitions/sd-wan-technology/-> We can provision endpoints (vEdges) through a centralized router vManage -> Answer D is correct.
Answer A is not correct as we can use different kind of connections on SD-WAN: MPLS, LTE, 4G, xDSL, Internet connections… Application-Aware Routing policy is configured in vManage as a centralized data policy that maps the serviceside application(s) to specific SLA requirements. The centralized policies provisioned in vSmart controller is pushed to relevant WAN Edge devices for enforcement. The defined policy consists of match-action pairs, where the match statement defines the application-list or the type of traffic to match, and the action statement defines the SLA action the WAN Edge devices must enforce for the specified traffic.
Reference: https://www.cisco.com/c/en/us/td/docs/solutions/CVD/SDWAN/cisco-sdwanapplication-awarerouting-deploy-guide.html

QUESTION 155
How does CEF switching differ from process switching on Cisco devices?

A.   CEF switching saves memory by sorting adjacency tables in dedicate memory on the line cards, and process switching stores all tables in the main memory

B.   CEF switching uses adjacency tables built by the CDP protocol, and process switching uses the routing table

C.   CEF switching uses dedicated hardware processors, and process switching uses the main processor

D.   CEF switching uses proprietary protocol based on IS-IS for MAC address lookup, and process switching uses in MAC address table

Correct Answer: B
Section:
Explanation:
Cisco Express Forwarding (CEF) switching is a proprietary form of scalable switching intended to tackle the problems associated with demand caching. With CEF switching, the information which is conventionally stored in a route cache is split up over several data structures. The CEF code is able to maintain these data structures in the Gigabit Route Processor (GRP), and also in slave processors such as the line cards in the 12000 routers. The data structures that provide optimized lookup for efficient packet forwarding include:
The Forwarding Information Base (FIB) table - CEF uses a FIB to make IP destination prefix-based switching decisions. The FIB is conceptually similar to a routing table or information base. It maintains a mirror image of the forwarding information contained in the IP routing table. When routing or topology changes occur in the network, the IP routing table is updated, and these changes are reflected in the FIB. The FIB maintains next-hop address information based on the information in the IP routing table.
Because there is a one-to-one correlation between FIB entries and routing table entries, the FIB contains all known routes and eliminates the need for route cache maintenance that is associated with switching paths such as fast switching and optimum switching.
Adjacency table - Nodes in the network are said to be adjacent if they can reach each other with a single hop across a link layer. In addition to the FIB, CEF uses adjacency tables to prepend Layer 2 addressing information. The adjacency table maintains Layer 2 next-hop addresses for all FIB entries.
CEF can be enabled in one of two modes:
Central CEF mode - When CEF mode is enabled, the CEF FIB and adjacency tables reside on the route processor, and the route processor performs the express forwarding. You can use CEF mode when line cards are not available for
CEF switching, or when you need to use features not compatible with distributed CEF switching.
Distributed CEF (dCEF) mode - When dCEF is enabled, line cards maintain identical copies of the FIB and adjacency tables. The line cards can perform the express forwarding by themselves, relieving the main processor - Gigabit Route
Processor (GRP) - of involvement in the switching operation. This is the only switching method available on the Cisco 12000 Series Router. dCEF uses an Inter-Process Communication (IPC) mechanism to ensure synchronization of FIBs and adjacency tables on the route processor and line cards.
For more information about CEF switching, see Cisco Express Forwarding (CEF) White Paper.

QUESTION 156
Refer the exhibit.
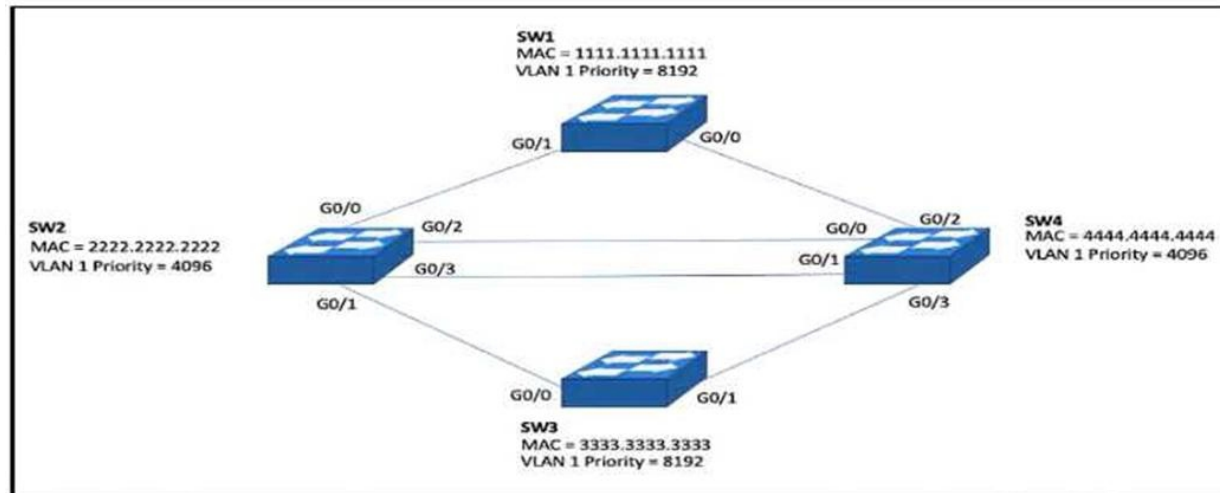
Which configuration elects SW4 as the root bridge for VLAN 1 and puts G0/2 on SW2 into a blocking state?

A.

```
SW4(config)#spanning-tree vlan 1 priority 0
|
SW2(config)#interface G0/2
SW2(config-if)#spanning-tree vlan 1 port-priority 64
```

B.

```
SW4(config)#spanning-tree vlan 1 priority 0
|
SW2(config)#int G0/2
SW2(config-if)#spanning-tree cost 128
```

C.

```
SW4(config)#spanning-tree vlan 1 priority 32768
|
SW2(config)#interface G0/2
SW2(config-if)#spanning-tree vlan 1 port-priority 0
```

D.

```
SW4(config)#spanning-tree vlan 1 priority 32768
|
SW2(config)#int G0/2
SW2(config-if)#spanning-tree cost 128
```

Correct Answer: B
Section:

QUESTION 157
An engineer must configure a router to leak routes between two VRFs Which configuration must the engineer apply?
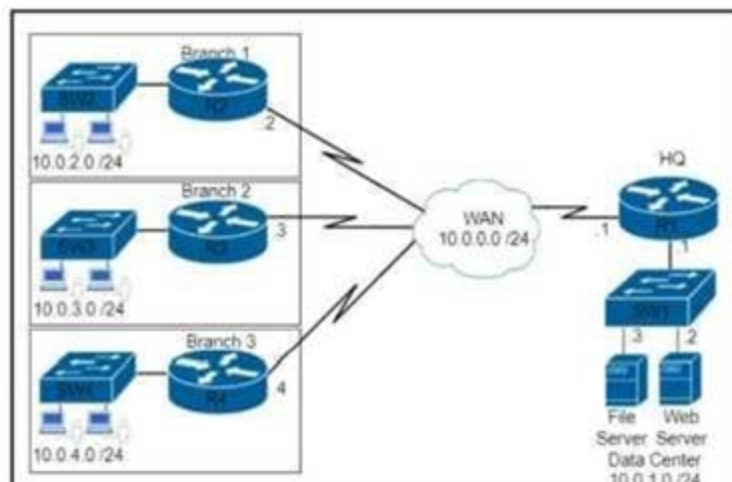
A.

```
ip access-list extended acl-to-red
   permit ip any 10.1.1.0 0.0.0.255
route-map rm-to-red permit 10
   match ip address 50
ip vrf RED
   rd 1:1
   import ipv4 unicast map rm-to-red
```

B.

```
ip access-list extended acl-to-red
   permit ip 10.1.1.0 0.0.0.255 any
route-map rm-to-red permit 10
   match ip address acl-to-red
ip vrf RED
   rd 1:1
   import ipv4 unicast route-map acl-to-red
```

C.

```
ip access-list extended acl-to-red
   permit ip 10.1.1.0 0.0.0.255 any
route-map rm-to-red permit 10
   match ip address acl-to-red
ip vrf RED
   rd 1:1
   import ipv4 unicast map rm-to-red
```

D.

```
ip access-list extended acl-to-red
   permit ip 10.1.1.0 0.0.0.255 any
route-map rm-to-red permit 10
   match ip address acl-to-red
ip vrf RED
   rd 1:1
   import ipv4 unicast acl-to-red
```

Correct Answer: B
Section:

QUESTION 158
What are the main components of Cisco TrustSec?

A. Cisco ISE and Enterprise Directory Services
B. Cisco ISE. network switches, firewalls, and routers
C. Cisco ISE and TACACS+
D. Cisco ASA and Cisco Firepower Threat Defense

Correct Answer: B
Section:

QUESTION 159
Which three resources must the hypervisor make available to the virtual machines? (Choose three)

A. memory
B. bandwidth
C. IP address
D. processor
E. storage
F. secure access

Correct Answer: A, D, E
Section:

QUESTION 160
Refer to the exhibit.
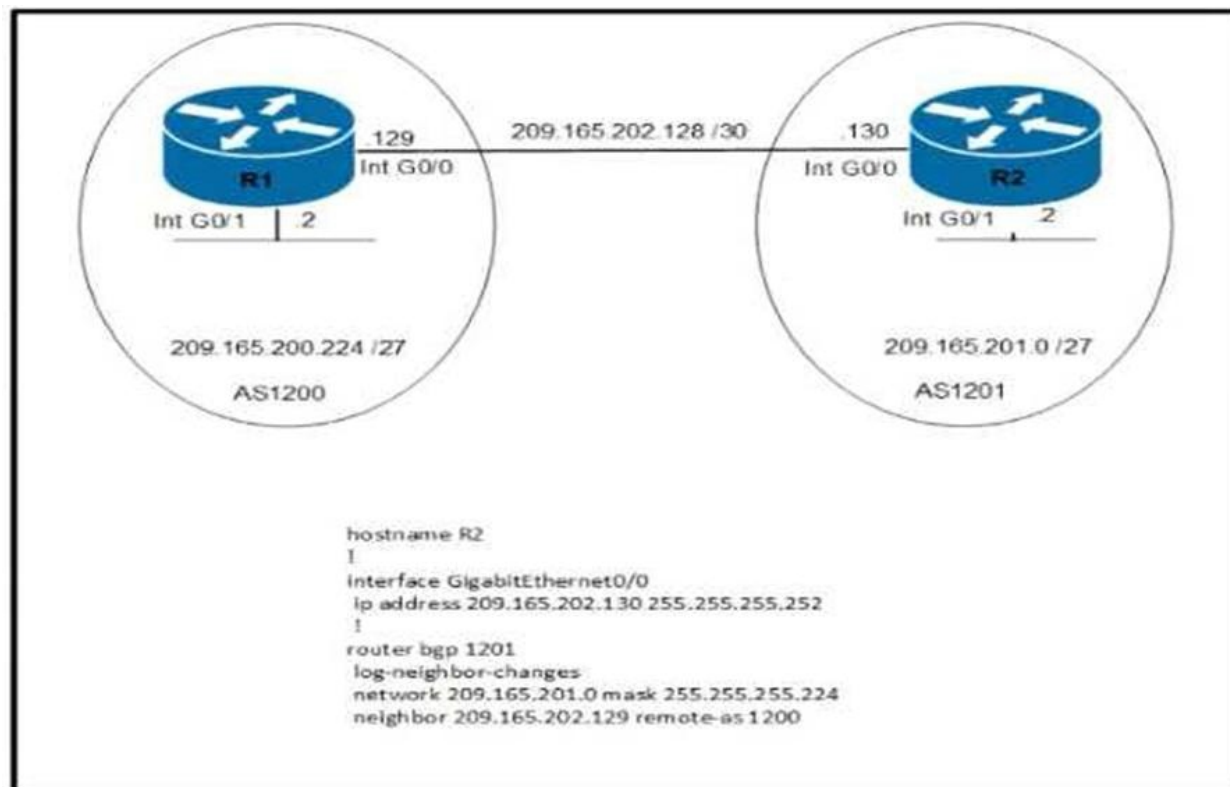
Which command set must be applied on R1 to establish a BGP neighborship with R2 and to allow communication from R1 to reach the networks?

A.

```
router bgp 1200
 network 209.165.201.0 mask 255.255.255.224
 neighbor 209.165.202.130 remote-as 1201
```

B.

```
router bgp 1200
 network 209.165.200.224 mask 255.255.255.224
 neighbor 209.165.201.2 remote-as 1200
```

C.

```
router bgp 1200
 network 209.165.200.224 mask 255.255.255.224
 neighbor 209.165.202.130 remote-as 1201
```

D.

```
router bgp 1200
 network 209.165.200.224 mask 255.255.255.224
```

Correct Answer: A
Section:

QUESTION 161
Refer to the exhibit.

```
SW2#
%CDP-4-NATIVE_VLAN_MISMATCH:    Native VLAN mismatch discovered on
GigabitEthernet0/1 (1), with SW1 GigabitEthernet 0/1 (30).
SW2#
```

An engineer must set up connectivity between a campus aggregation layer and a branch office access layer. The engineer uses dynamic trunking protocol to establish this connection, however, management traffic on VLAN1 is not passing.
Which action resolves the issue and allow communication for all configured VLANs?

A. Allow all VLANs on the trunk links
B. Disable Spanning Tree for the native VLAN.
C. Configure the correct native VLAN on the remote interface
D. Change both interfaces to access ports.

Correct Answer: C
Section:

QUESTION 162
Which IPv4 packet field carries the QoS IP classification marking?

A. ID
B. TTL
C. FCS
D. ToS

Correct Answer: D
Section:
Explanation:
The classification is carried in the IP packet header, using 6 bits from the deprecated IP type of service (ToS) field to carry the classification (class) information. Classification can also be carried in the Layer 2 frame.

QUESTION 163
Which Cisco FlexConnect state allows wireless users that are connected to the network to continue working after the connection to the WLC has been lost?

A. Authentication Down/Switching Down
B. Authentication-Central/Switch-Local
C. Authentication- Down/Switch-Local
D. Authentication-Central/Switch-Central

Correct Answer: C
Section:
Explanation:
Operation Modes
There are two modes of operation for the FlexConnect AP.
Connected mode: The WLC is reachable. In this mode the FlexConnect AP has CAPWAP connectivity with its WLC.
Standalone mode: The WLC is unreachable. The FlexConnect has lost or failed to establish CAPWAP connectivity with its WLC. A WAN-link outage between a branch and its central site is a example of such a mode of operation.
FlexConnect States
A FlexConnect WLAN, depending on its configuration and network connectivity, is classified as being in one of the following defined states.
Authentication-Central/Switch-Central: This state represents a WLAN that uses a centralized authentication method such as 802.1X, VPN, or web. User traffic is sent to the WLC via CAPWAP (Central switching). This state is

supported only when FlexConnect is in connected mode.

Authentication Down/Switching Down: Central switched WLANs no longer beacon or respond to probe requests when the FlexConnect AP is in standalone mode. Existing clients are disassociated.

Authentication-Central/Switch-Local: This state represents a WLAN that uses centralized authentication, but user traffic is switched locally. This state is supported only when the FlexConnect AP is in connected mode.

Authentication-Down/Switch-Local: A WLAN that requires central authentication rejects new users.

Existing authenticated users continue to be switched locally until session time-out if configured. The WLAN continues to beacon and respond to probes until there are no more existing users associated to the WLAN. This state occurs as a result of the AP going into standalone mode.

Authentication-local/switch-local: This state represents a WLAN that uses open, static WEP, shared, or WPA2 PSK security methods. User traffic is switched locally. These are the only security methods supported locally if a FlexConnect goes into standalone mode. The WLAN continues to beacon and respond to probes. Existing users remain connected and new user associations are accepted. If the AP is in connected mode, authentication information for these security types is forwarded to the WLC.

QUESTION 164
Which resource is able to be shared among virtual machines deployed on the same physical server?

A. applications

B. disk

C. VM configuration file

D. operating system

Correct Answer: B
Section:

QUESTION 165
What is the purpose of an RP in PIM?

A. send join messages toward a multicast source SPT

B. ensure the shortest path from the multicast source to the receiver

C. receive IGMP joins from multicast receivers

D. secure the communication channel between the multicast sender and receiver

Correct Answer: A
Section:

QUESTION 166
Refer to the exhibit.

```
{
    "method": "GET",
    "url": "/restconf/api/running/native/interface",
    "params": {
        "Accept": "application/vnd.yang.collection+json,
                   application/vnd.yang.data+json,
                   application/vnd.yang.datastore+json"
    },
    "data": {}
}
```

What is the result of the API request?

A. The "params" variable sends data fields to the network appliance.

B. The native interface information is read from the network appliance.

C. The Information for all interfaces is read from the network appliance.

D. The "params" variable reads data fields from the network appliance

Correct Answer: D
Section:

QUESTION 167
Which definition describes JWT in regard to REST API security?

A. an encrypted JSON token that is used for authentication
B. an encrypted JSON token that is used for authorization
C. an encoded JSON token that is used to securely exchange information
D. an encoded JSON token that is used for authentication

Correct Answer: D
Section:

QUESTION 168
What happens when a FlexConnect AP changes to standalone mode?

A. All controller-dependent activities stop working except the DFS.
B. All client roaming continues to work
C. Only clients on central switching WLANs stay connected.
D. All clients on an WLANs are disconnected

Correct Answer: A
Section:

QUESTION 169
Which protocol is implemented to establish secure control plane adjacencies between Cisco SD-WAN nodes?

A. IKF
B. TLS
C. IPsec
D. ESP

Correct Answer: B
Section:

QUESTION 170
Refer to the exhibit.
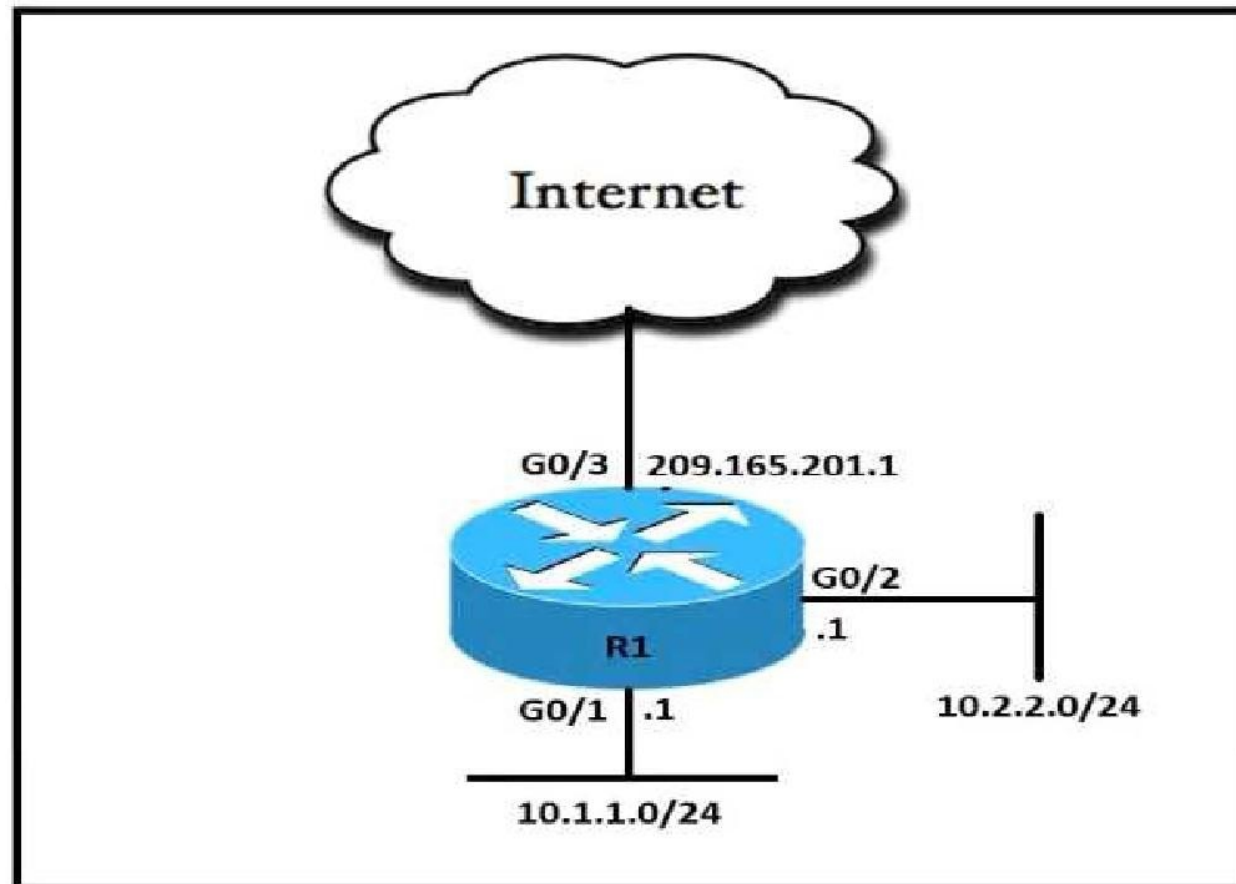
An engineer must allow all users in the 10.2.2.0/24 subnet to access the Internet. To conserve address space the public Interface address of 209 165 201.1 must be used for all external communication. Which command set accomplishes these requirements?

A.

```
access-list 10 permit 10.2.2.0 0.0.0.255

interface G0/3
ip nat outside

interface G0/2
ip nat inside

ip nat inside source list 10 209.165.201.1
```

B.

access-list 10 permit 10.2.2.0 0.0.0.255

interface G0/3
ip nat outside

interface G0/2
ip nat inside

C.

access-list 10 permit 10.2.2.0 0.0.0.255

interface G0/3
ip nat outside

interface G0/2
ip nat inside

ip nat inside source list 10 interface G0/3

D.

access-list 10 permit 10.2.2.0 0.0.0.255

interface G0/3
ip nat outside

interface G0/2
ip nat inside

Correct Answer: C
Section:

QUESTION 171
Which benefit is realized by implementing SSO?

A. IP first-hop redundancy
B. communication between different nodes for cluster setup
C. physical link redundancy
D. minimal network downtime following an RP switchover

Correct Answer: D

QUESTION 172

Refer to the exhibit.

```
Cat3650# show logging
[ ... cut ... ]
*Sep 11 19:06:25.595: %PM-4-ERR_DISABLE: channel-misconfig error detected on Po1, putting Gi1/0/2
in err-disable state
*Sep 11 19:06:25.606: %PM-4-ERR_DISABLE: channel-misconfig error detected on Po1, putting Gi1/0/3
in err-disable state
*Sep 11 19:06:25.622: %PM-4-ERR_DISABLE: channel-misconfig error detected on Po1, putting Po1 in
err-disable state

Cat3650# show etherchannel summary
[ ... cut ... ]
Group  Port-channel  Protocol   Ports
------+-------------+----------+-----------------------------------
1      Po1(SD)          -        Gi1/0/2(D)  Gi1/0/3(D)

Cat3650# show interface status err-disabled
Port      Name      Status       Reason          Err-disabled Vlans

Gi1/0/2             err-disabled channel-misconfig
Gi1/0/3             err-disabled channel-misconfig
Po1                 err-disabled channel-misconfig
```

The administrator troubleshoots an EtherChannel that keeps moving to err-disabled. Which two actions must be taken to resolve the issue? (Choose two.)

A. Reload the switch to force EtherChannel renegotiation

B. Ensure that interfaces Gi1/0/2 and Gi1/0/3 connect to the same neighboring switch.

C. Ensure that the switchport parameters of Port channel1 match the parameters of the port channel on the neighbor switch

D. Ensure that the corresponding port channel interface on the neighbor switch is named Portchannel1.

E. Ensure that the neighbor interfaces of Gi1/0/2 and Gi/0/3 are configured as members of the same EtherChannel

Correct Answer: B, E
Section:
Explanation:
Causes of Errdisable
This feature was first implemented in order to handle special collision situations in which the switch detected excessive or late collisions on a port. Excessive collisions occur when a frame is dropped because the switch encounters 16 collisions in a row. Late collisions occur after every device on the wire should have recognized that the wire was in use. Possible causes of these types of errors include:
A cable that is out of specification (either too long, the wrong type, or defective) A bad network interface card (NIC) card (with physical problems or driver problems) A port duplex misconfiguration A port duplex misconfiguration is a common cause of the errors because of failures to negotiate the speed and duplex properly between two directly connected devices (for example, a NIC that connects to a switch). Only half-duplex connections should ever have collisions in a LAN. Because of the carrier sense multiple access (CSMA) nature of Ethernet, collisions are normal for half duplex, as long as the collisions do not exceed a small percentage of traffic.

QUESTION 173
Refer to the exhibit.

```
Router# show running-config

! lines omitted for brevity


username cisco password 0 cisco


aaa authentication login group1 group radius line
aaa authentication login group2 group radius local
aaa authentication login group3 group radius none


line con 0
password 0 cisco123
login authentication group1
line aux 0
login authentication group3
line vty 0 4
password 0 test123
login authentication group2
```

A network engineer must log in to the router via the console, but the RADIUS servers are not reachable Which credentials allow console access1?

A. the username "cisco" and the password "Cisco"
B. no username and only the password "test123"
C. no username and only the password "cisco123"
D. the username "cisco" and the password "cisco123"

Correct Answer: D
Section:

QUESTION 174

```
restconf
!
ip http server
ip http authentication local
ip http secure-server
!
```

Which command must be configured for RESTCONF to operate on port 8888?

A. ip http port 8888
B. restconf port 8888
C. ip http restconf port 8888
D. restconf http port 8888

Correct Answer: A
Section:

QUESTION 175
What Is a characteristic of a WLC that is in master controller mode?

A. All wireless LAN controllers are managed by the master controller.
B. All new APs that join the WLAN are assigned to the master controller.
C. Configuration on the master controller is executed on all wireless LAN controllers.
D. The master controller is responsible for load balancing all connecting clients to other controllers

Correct Answer: B
Section:
Explanation:
When should I use the master controller mode on a WLC? – When there is a master controller enabled, all newly added access points with no primary, secondary, or tertiary controllers assigned associate with the master controller on the same subnet.Reference: https://www.cisco.com/c/en/us/support/docs/wireless/4400-series-wireless-lan- controllers/69561-wlc-faq.html

QUESTION 176
Refer to the exhibit.

```
Edge-01(config)#track 10 interface Gigabitethernet 0/0 line-protocol
Edge-02(config)#track 10 interface Gigabitethernet 0/0 line-protocol

Edge-01#show vrrp brief
Interface       Grp Pri Time  Own Pre State   Master addr     Group addr
G0/1            10  100 3609      Y  Master   10.104.110.2    10.104.110.1

Edge-02#show vrrp brief
Interface       Grp Pri Time  Own Pre State   Master addr     Group addr
G0/1            10  80  3687      Y  Backup   10.104.110.2    10.104.110.1
```
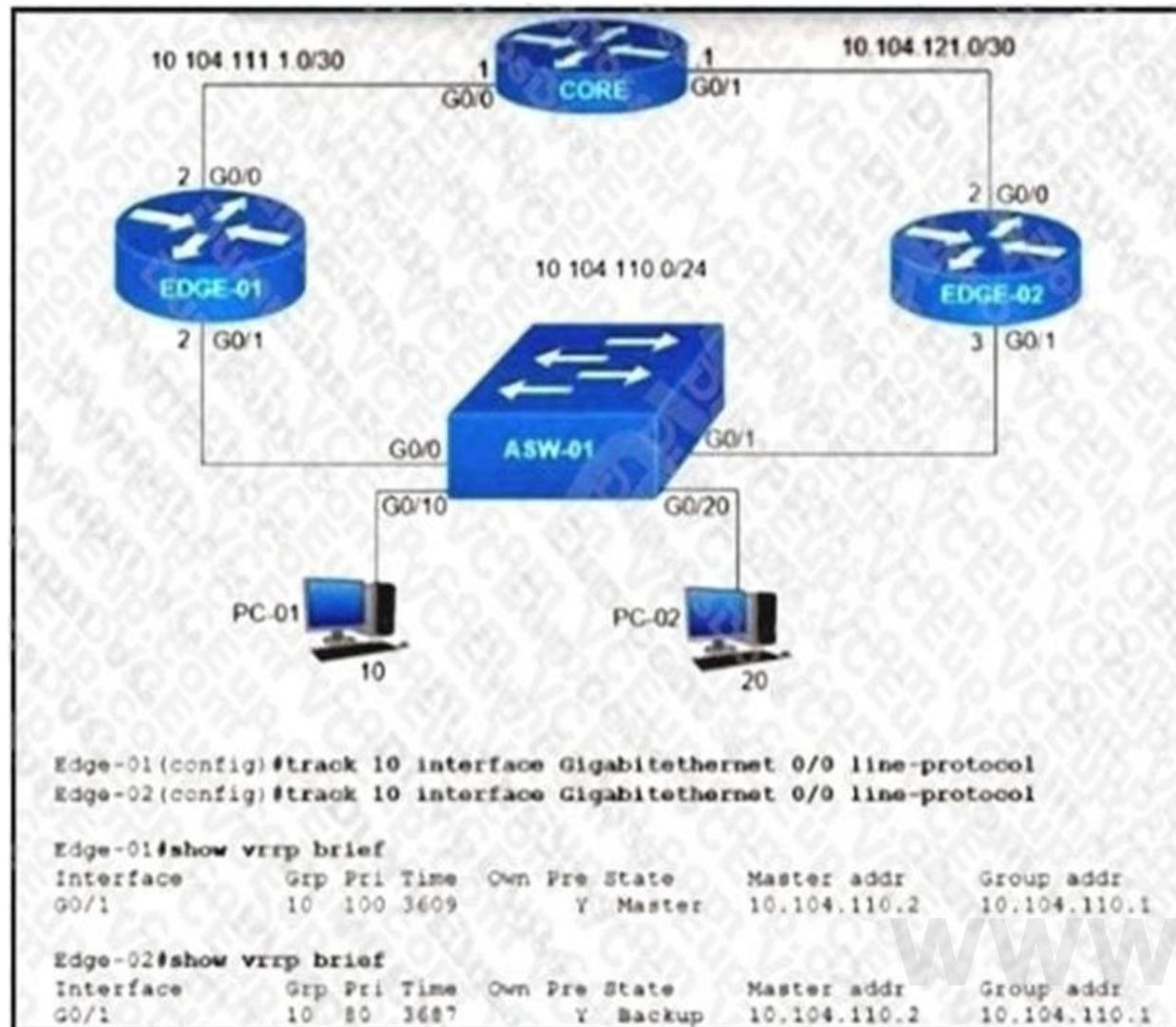
Object tracking has been configured for VRRP-enabled routers Edge-01 and Edge-02 Which commands cause Edge-02 to preempt Edge-01 in the event that interface G0/0 goes down on Edge- 01?

A.

```
Edge-01(config)#interface G0/1
Edge-01(config-if)#vrrp 10 track 10 decrement 30
```

B.

```
Edge-02(config)#interface G0/1
Edge-02(config-if)#vrrp 10 track 10 decrement 30
```

C.

```
Edge-02(config)#interface G0/1
Edge-02(config-if)#vrrp 10 track 10 decrement 10
```

D.

```
Edge-01(config)#interface G0/1
Edge-01(config-if)#vrrp 10 track 10 decrement 10
```

Correct Answer: A
Section:

QUESTION 177

Which feature Is used to propagate ARP broadcast, and link-local frames across a Cisco SD-Access fabric to address connectivity needs for silent hosts that require reception of traffic to start communicating?

A. Native Fabric Multicast

B. Layer 2 Flooding

C. SOA Transit

D. Multisite Fabric

Correct Answer: B
Section:
Explanation:
Layer2 Flooding
Cisco SD-Access fabric provides many optimizations to improve unicast traffic flow, and to reduce the unnecessary flooding of data such as broadcasts. But, for some traffic and applications, it may be desirable to enable broadcast forwarding within the fabric.
By default, this is disabled in the Cisco SD-Access architecture. If broadcast, Link local multicast and Arp flooding is required, it must be specifically enabled on a per-subnet basis using Layer 2 flooding feature.
Layer 2 flooding can be used to forward broadcasts for certain traffic and application types which may require leveraging of Layer 2 connectivity, such as silent hosts, card readers, door locks, etc.

QUESTION 178

An engineer must configure an ACL that permits packets which include an ACK in the TCP header Which entry must be included in the ACL?

A. access-list 10 permit ip any any eq 21 tcp-ack

B. access-list 110 permit tcp any any eq 21 tcp-ack

C. access-list 10 permit tcp any any eq 21 established

D. access-list 110 permit tcp any any eq 21 established

Correct Answer: D
Section:
Explanation:
The established keyword is only applicable to TCP access list entries to match TCP segments that have the ACK and/or RST control bit set (regardless of the source and destination ports), which assumes that a TCP connection has already been established in one direction only. Let's see an example below:
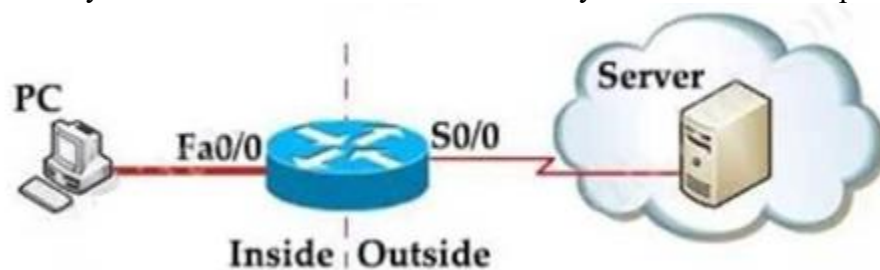
Suppose you only want to allow the hosts inside your company to telnet to an outside server but not vice versa, you can simply use an - "established" access-list like this:
access-list 100 permit tcp any any established
access-list 101 permit tcp any any eq telnet
!
interface S0/0
ip access-group 100 in
ip access-group 101 out
Note: Suppose host A wants to start communicating with host B using TCP. Before they can send real data, a three-way handshake must be established first. Let's see how this process takes place:
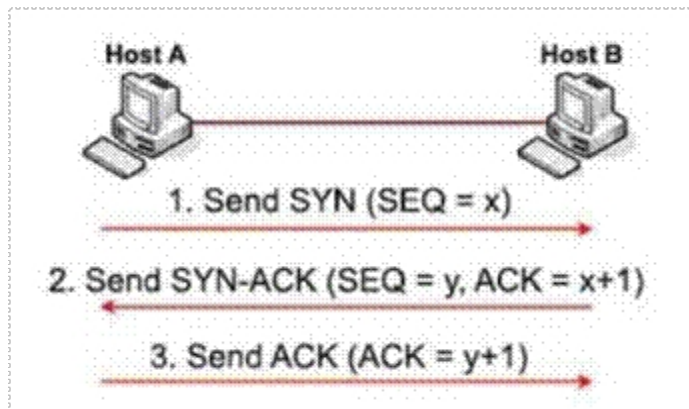
1. First host A will send a SYN message (a TCP segment with SYN flag set to 1, SYN is short for
SYNchronize) to indicate it wants to setup a connection with host B. This message includes a sequence (SEQ) number for tracking purpose. This sequence number can be any 32-bit number
(range from 0 to 232) so we use -"x" to represent it.
2. After receiving SYN message from host A, host B replies with SYN-ACK message (some books may call it -SYN/ACK? or -SYN, ACK? message. ACK is short for ACKnowledge). This message
includes a SYN sequence number and an ACK number:
+ SYN sequence number (let's called it "y") is a random number and does not have any relationship with Host A's SYN SEQ number.
+ ACK number is the next number of Host A's SYN sequence number it received, so we represent it with "x+1". It means -I received your part. Now send me the next part (x + 1)".
The SYN-ACK message indicates host B accepts to talk to host A (via ACK part). And ask if host A still wants to talk to it as well (via SYN part).
3. After Host A received the SYN-ACK message from host B, it sends an ACK message with ACK number "y+1" to host B. This confirms host A still wants to talk to host B.

QUESTION 179
By default, which virtual MAC address does HSRP group 14 use?

A. 04.16.19.09.4c.0e
B. 00:05:5e:19:0c:14
C. 00:05:0c:07:ac:14
D. 00:00:0c:07:ac:0e

Correct Answer: D
Section:

QUESTION 180
What is one characteristic of the Cisco SD-Access control plane?

A. It is based on VXLAN technology.
B. Each router processes every possible destination and route
C. It allows host mobility only in the wireless network.
D. It stores remote routes in a centralized database server

Correct Answer: D
Section:
Explanation:
A control plane node maintains a host tracking database (HTDB), and also uses Locator/ID Separation Protocol (LISP) to provide a map server, populating the HTDB from fabric edge registration messages; and a map resolver
to respond to queries from edge devices requesting location information about destination nodes.

QUESTION 181
What is used to validate the authenticity of the client and is sent in HTTP requests as a JSON object?

A. SSH
B. HTTPS
C. JWT
D. TLS

Correct Answer: C
Section:

QUESTION 182
In a Cisco SD-Access wireless architecture which device manages endpoint ID to edge node bindings?

A. fabric control plane node
B. fabric wireless controller
C. fabric border node
D. fabric edge node

Correct Answer: A
Section:
Explanation:
SD-Access Wireless Architecture Control Plane Node –A Closer Look
Fabric Control-Plane Node is based on a LISP Map Server / Resolver
Runs the LISP Endpoint ID Database to provide overlay reachability information + A simple Host Database, that tracks Endpoint ID to Edge Node bindings (RLOCs)+ Host Database supports multiple types of Endpoint ID (EID), such as IPv4/32, IPv6 /128* or MAC/48 + Receives prefix registrations from Edge Nodes for wired clients, and from Fabric mode WLCs for wireless clients + Resolves lookup requests from FE to locate Endpoints + Updates Fabric Edge nodes, Border nodes with wireless client mobility and RLOC information

QUESTION 183
A large campus network has deployed two wireless LAN controllers to manage the wireless network.
WLC1 and WLC2 have been configured as mobility peers. A client device roams from AP1 on WLC1 to AP2 on WLC2, but the controller's client interfaces are on different VLANs. How do the wireless LAN controllers handle the inter-subnet roaming?

A. WLC1 marks me diem with an anchor entry In Its own database. The database entry is copied to the new controller and marked with a foreign entry on VVLC2.
B. WLC2 marks the client with an anchor entry In Its own database. The database entry Is copied to the new controller and marked with a foreign entry on WLC1
C. WLCl marks the client with a foreign entry in its own database. The database entry is copied to the new controller and marked with an anchor entry on WLC2.
D. WLC2 marks the client with a foreign entry In its own database. The database entry Is copied to the new controller and marked with an anchor entry on WLC1.

Correct Answer: B
Section:

QUESTION 184
Reter to the exhibit.

R2
interface ethernet0/0
ip address 192.168.124.2 255.255.255.0
!
interface ethernet0/1
ip address 172.16.20.2 255.255.255.0
!
interface loopback0
ip address 2.2.2.2 255.255.255.255
!
router ospf 1
router-id 0.0.0.2
network 2.2.2.2 0.0.0.0 area 0
network 172.16.20.0 0.0.0.255 area 0
network 192.168.0.0 0.0.255.255 area 0
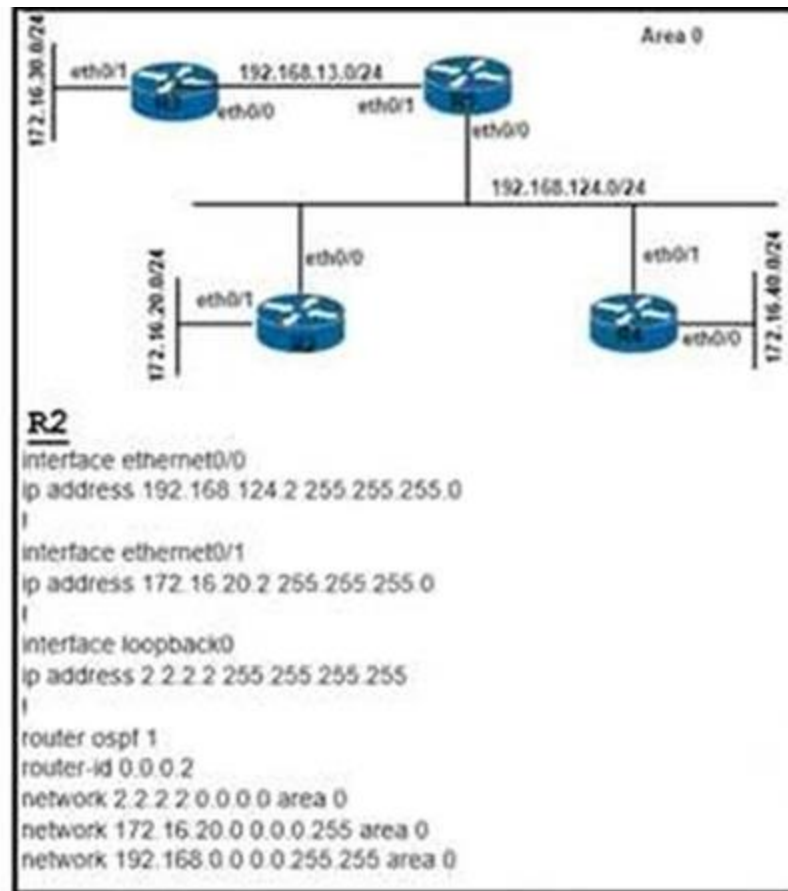
Refer to the exhibit. An attacker can advertise OSPF fake routes from 172.16.20.0 network to the OSPF domain and black hole traffic. Which action must be taken to avoid this attack and still be able to advertise this subnet into OSPF?

A. Configure 172.16.20.0 as a stub network.
B. Apply a policy to filter OSPF packets on R2.
C. Configure a passive Interface on R2 toward 172.16.20.0.
D. Configure graceful restart on the 172.16.20.0 interface.

Correct Answer: C
Section:

QUESTION 185
What is the calculation that is used to measure the radiated power of a signal after it has gone through the radio, antenna cable, and antenna?

A. EIRP
B. mW
C. dBm
D. dBi

Correct Answer: A
Section:

QUESTION 186
Which two parameters are examples of a QoS traffic descriptor? (Choose two)

A. MPLS EXP bits

B. bandwidth

C. DSCP

D. ToS

E. packet size

Correct Answer: A, C
Section:

QUESTION 187
Refer to the exhibit.


```
SW2# show ip interface brief | include Port
Port-channel1 unassigned YES unset down down
SW2# show etherchannel summary
Flags: D - down P - bundled in port-channel
I - stand-alone s - suspended
H - Hot-standby (LACP only)
R - Layer3 S - Layer2
U - in use f - failed to allocate aggregator
M - not in use, minimum links not met
u - unsuitable for bundling
w - waiting to be aggregated
d - default port
Number of channel-groups in use: 1
Number of aggregators: 1
Group Port-channel Protocol Ports
------+-------------+-----------+-----------------
-------
1 Po1(S D ) PAgP Gi0/0(I) Gi0/1(I)

SW3# show etherchannel summary
Flags: D - down P - bundled in port-channel
I - stand-alone s - suspended
H - Hot-standby (LACP only)
R - Layer3 S - Layer2
U - in use f - failed to allocate aggregator
M - not in use, minimum links not met
u - unsuitable for bundling
w - waiting to be aggregated
d - default port
Number of channel-groups in use: 1
Number of aggregators: 1
Group Port-channel Protocol Ports
------+-------------+-----------+-----------------
-------
1 Po1(S D ) LACP Gi0/0(I) Gi0/1(I)
```

Which action resolves the EtherChannel issue between SW2 and SW3?

A. Configure switchport mode trunk on SW2.

B. Configure switchport nonegotiate on SW3

C. Configure channel-group 1 mode desirable on both interfaces.

D. Configure channel-group 1 mode active on both interfaces.

Correct Answer: D
Section:

QUESTION 188
Refer to the exhibit.
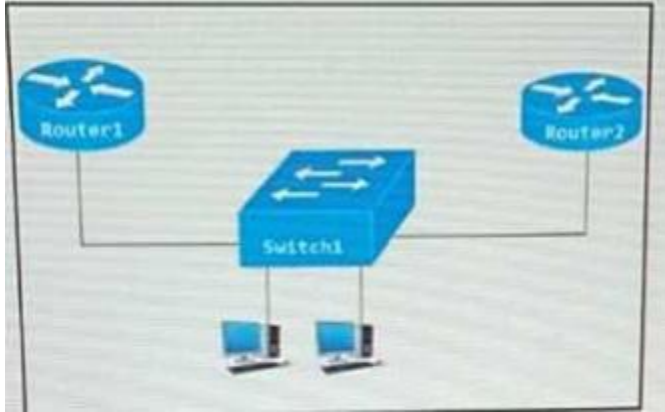
Router 1 is currently operating as the HSRP primary with a priority of 110 router1 fails and router2 take over the forwarding role. Which command on router1 causes it to take over the forwarding role when it return to service?

A. standby 2 priority

B. standby 2 preempt

C. standby 2 track

D. standby 2 timers

Correct Answer: B
Section:

QUESTION 189
Which component of the Cisco Cyber Threat Defense solution provides user and flow context analysis?

A. Cisco Firepower and FireSIGHT

B. Cisco Stealth watch system

C. Advanced Malware Protection

D. Cisco Web Security Appliance

Correct Answer: B
Section:

QUESTION 190

```
Router2# show policy-map control-plane

Control Plane
Service-policy input:CISCO
Class-map:CISCO (match-all)
    20 packets, 11280 bytes
    5 minute offered rate 0 bps, drop rate 0 bps
    Match:access-group 120
    police:
      8000 bps, 1500 limit, 1500 extended limit
      conformed 15 packets, 6210 bytes; action:transmit
      exceeded 5 packets, 5070 bytes; action:drop
      violated 0 packets, 0 bytes; action:drop
      conformed 0 bps, exceed 0 bps, violate 0 bps
Class-map:class-default (match-day)
    105325 packets, 11415151 bytes
    5 minute offered rate 0 bps, drop rate 0 bps
    Match:any
```

Refer to the exhibit. An engineer configures CoPP and enters the show command to verify the implementation. What is the result of the configuration?

A. All traffic will be policed based on access-list 120.
B. If traffic exceeds the specified rate, it will be transmitted and remarked.
C. Class-default traffic will be dropped.
D. ICMP will be denied based on this configuration.

Correct Answer: A
Section:

QUESTION 191
Refer to the exhibit.

```
DSW2#sh spanning-tree vlan 10

VLAN0010
  Spanning tree enabled protocol rstp
  Root ID    Priority    4106
             Address     0018.7363.4300
             This bridge is the root
             Hello Time   2 sec  Max Age 20 sec  Forward Delay 15 sec

  Bridge ID  Priority    4106   (priority 4096 sys-id-ext 20)
             Address     0018.7363.4300
             Hello Time   2 sec  Max Age 20 sec  Forward Delay 15 sec
             Aging Time 300

Interface           Role Sts Cost      Prio.Nbr Type
------------------- ---- --- --------- -------- ---------------------------
Fa1/0/7             Desg FWD 2         128.9    P2p Peer(STP)
Fa1/0/10            Desg FWD 4         128.12   P2p Peer(STP)
Fa1/0/11            Desg FWD 2         128.13   P2p Peer(STP)
Fa1/0/12            Desg FWD 2         128.14   P2p Peer(STP)
```

What is the result when a switch that is running PVST+ is added to this network?

A. DSW2 operates in Rapid PVST+ and the new switch operates in PVST+
B. Both switches operate in the PVST+ mode
C. Spanning tree is disabled automatically on the network
D. Both switches operate in the Rapid PVST+ mode.

Correct Answer: A
Section:
Explanation:
From the output we see DSW2 is running in RSTP mode (in fact Rapid PVST+ mode as Cisco does not support RSTP alone). When a new switch running PVST+ mode is added to the topology, they keep running the old STP instances as
RSTP (in fact Rapid PVST+) is compatible with PVST+.

QUESTION 192
Reter to the exhibit.

```
Router1$ ssh -s admin@192.168.20.3 -p 830 netconf
admin@192.168.20.3's password: cisco123

<?xml version="1.0" encoding="UTF-8"?>
<hello xmlns="urn:ietf:params:xml:ns:netconf:base:1.0">
<capabilities>
<capability>urn:ietf:params:netconf:base:1.0</capability>
<capability>urn:ietf:params:netconf:base:1.1</capability>
<capability>urn:ietf:params:netconf:capability:writable-
running:1.0</capability>
<capability>urn:ietf:params:netconf:capability:xpath:1.0</capability>
<capability>urn:ietf:params:netconf:capability:validate:1.0</capability>
<capability>urn:ietf:params:netconf:capability:validate:1.1</capability>
<capability>urn:ietf:params:netconf:capability:rollback-on-
error:1.0</capability
--snip--
</capabilities>
<session-id>2870</session-id></ hello>]]>]]>

Use < ^C > to exit
```

Refer to the exhibit. An engineer tries to log in to router R1. Which configuration enables a successful login?

A.

R1# username admin privilege 15
aaa authorization exec default local

B.

R1#netconf-yang
username admin privilege 15 secret cisco123
aaa new-model
aaa authorization exec default local

C.

R1# aaa new-model
aaa authorization exec default local
enable aaa admin privilege 15

D.

R1#username admin privilege 15
aaa authorization exec default local
netconf-yang

Correct Answer: B
Section:

QUESTION 193
Reter to the exhibit.

```
ip sla 100
  udp-echo 10.10.10.15 6336
  frequency 30
```

Refer to the exhibit. An engineer has configured an IP SLA for UDP echo's. Which command is needed to start the IP SLA to test every 30 seconds and continue until stopped?

A. ip sla schedule 100 start-time now life forever
B. ip sla schedule 30 start-time now life forever
C. ip sla schedule 100 start-time now life 30
D. ip sla schedule 100 life forever

Correct Answer: A
Section:

QUESTION 194
Which method displays text directly into the active console with a synchronous EEM applet policy?

A. event manager applet boom event syslog pattern 'UP' action 1.0 gets 'logging directly to console'
B. event manager applet boom event syslog pattern 'UP' action 1.0 syslog priority direct msg 'log directly to console'
C. event manager applet boom event syslog pattern 'UP' action 1.0 puts 'logging directly to console'
D. event manager applet boom event syslog pattern 'UP' action 1.0 string 'logging directly to console'

Correct Answer: B
Section:

QUESTION 195
What is one main REST security design principle?

A. separation of privilege

B. password hashing

C. confidential algorithms

D. OAuth

Correct Answer: A
Section:
Explanation:
Separation of Privilege: Granting permissions to an entity should not be purely based on a single condition, a combination of conditions based on the type of resource is a better idea.
https://restfulapi.net/securityessentials/#:~:text=REST%20Security%20Design%20Principles&text=Least%20Privilege%3A%20An%20entity%20should,when%20no%20longer%20in%20use.

QUESTION 196
How does NETCONF YANG represent data structures?

A. as strict data structures denned by RFC 6020

B. in an XML tree format

C. in an HTML format

D. as modules within a tree

Correct Answer: B
Section:

QUESTION 197
What is the recommended minimum SNR for data applications on wireless networks?

A. 15

B. 20

C. 25

D. 10

Correct Answer: B
Section:
Explanation:
Generally, a signal with an SNR value of 20 dB or more is recommended for data networks where as an SNR value of 25 dB or more is recommended for networks that use voice applications
https://documentation.meraki.com/MR/WiFi_Basics_and_Best_Practices/Signal-to-Noise_Ratio_(SNR)_and_Wireless_Signal_Strength#:~:text=Generally%2C%20a%20signal%20with%20an,networks%20that%20use%20voice%20applications.

QUESTION 198
A system must validate access rights to all its resources and must not rely on a cached permission matrix. If the access level to a given resource is revoked but is not reflected in the permission matrix, the security is violates Which term refers to this REST security design principle?

A. economy of mechanism

B. complete mediation

C. separation of privilege

D. least common mechanism

Correct Answer: B
Section:
Explanation:
A system should validate access rights to all its resources to ensure that they are allowed and should not rely on the cached permission matrix. If the access level to a given resource is being revoked, but that is not being reflected in the permission matrix, it would be violating security.
https://medium.com/strike-sh/rest-security-design-principles-434bd6ee57ea

QUESTION 199
Reter to the exhibit.
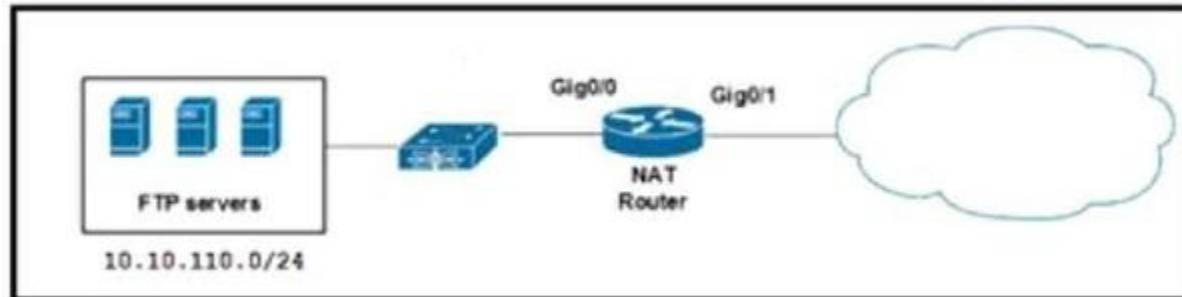
Refer to the exhibit. A network engineer must load balance traffic that comes from the NAT Router and is destined to 10.10.110.10, to several FTP servers. Which two commands sets should be applied? (Choose two).

A.


```
interface gig0/0
ip address 10.10.110.1 255.255.255.0
ip nat inside
interface gig0/1
ip address 172.16.1.1 255.255.255.252
ip nat outside
```

B.


```
ip nat pool ftp-pool 10.10.110.2 10.10.110.9 netmask 255.255.255.0
access-list 23 permit 10.10.110.10
ip nat inside destination-list 23 pool ftp-pool
```

C.


```
ip nat pool ftp-pool 10.10.110.2 10.10.110.9 netmask 255.255.255.0 type rotary
access-list 23 permit 10.10.110.10
ip nat inside destination-list 23 pool ftp-pool
```

D.


```
ip nat pool ftp-pool 10.10.110.2 10.10.110.9 netmask 255.255.255.0 type rotary
access-list 23 permit 10.10.110.10
ip nat outside destination-list 23 pool ftp-pool
```

E.

```
interface gig0/0
ip address 10.10.110.1 255.255.255.0
ip nat outside
interface gig0/1
ip address 172.16.1.1 255.255.255.252
ip nat inside
```

Correct Answer: A, C
Section:

QUESTION 200
The Gig0/0 interface of two routers is directly connected with a 1G Ethernet link. Which configuration must be applied to the interface of both routers to establish an OSPF adjacency without maintaining a DR/BDR relationship?

A.

```
interface Gig0/0
ip ospf network point-to-multipoint
```

B.

```
interface Gig0/0
ip ospf network point-to-point
```

C.

```
interface Gig0/0
ip ospf network broadcast
```

D.

```
interface Gig0/0
ip ospf network non-broadcast
```

Correct Answer: B
Section:

QUESTION 201
What is a characteristic of the overlay network in the Cisco SD-Access architecture?

A. It uses a traditional routed access design to provide performance and high availability to the network.
B. It consists of a group of physical routers and switches that are used to maintain the network.
C. It provides isolation among the virtual networks and independence from the physical network.
D. It provides multicast support to enable Layer 2 Hooding capability in the underlay network.

Correct Answer: C
Section:

QUESTION 202
An administrator is configuring NETCONF using the following XML string. What must the administrator end the request with?

```
<?xml version="1.0" encoding="UTF-8" ?>
<rpc message-id="9.0"><notification-on/>
```

A. </rpc>]]>]]>
B. </rpc-reply>
C. </rpc>
D. <rpc message.id="9.0">

Correct Answer: A
Section:

QUESTION 203
Which VXLAN component is used to encapsulate and decapsulate Ethernet frames?

A. VNI
B. GRE
C. VTEP
D. EVPN

Correct Answer: C
Section:

QUESTION 204
Reter to the exhibit.

```
event manager applet config-alert
event cli pattern "write mem.*" sync yes
```

Refer to the exhibit. Which EEM script generates a critical-level syslog message and saves a copy of the running configuration to the bootflash when an administrator saves the running configuration to the startup configuration?

```
action 1.0 cli command copy running-config bootflash:/current_config.txt
action 2.0 syslog msg "Configuration saved and copied to bootflash"
```

```
action 1.0 cli command "enable"
action 2.0 cli command "configure terminal"
action 3.0 cli command "file prompt quiet"
action 4.0 cli command "end"
action 5.0 cli command copy running-config bootflash:/current_config.txt
action 6.0 cli command "configure terminal"
action 7.0 cli command "no file prompt quiet"
action 8.0 syslog priority critical msg "Configuration saved and copied to bootflash"
```

```
action 1.0 cli command "enable"
action 2.0 cli command "file prompt quiet"
action 3.0 cli command copy running-config bootflash:/current_config.txt
action 4.0 cli command "no file prompt quiet"
action 5.0 syslog priority critical msg "Configuration saved and copied to bootflash"
```

```
action 1.0 cli command copy running-config bootflash:/current_config.txt
action 2.0 syslog priority critical msg"Configuration saved and copied to bootflash"
```

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

Correct Answer: B
Section:

QUESTION 205
A customer wants to connect a device to an autonomous Cisco AP configured as a WGB. The WGB is configured properly: however, it fails to associate to a CAPWAP- enabled AP. Which change must be applied in the advanced WLAN settings to resolve this issue?

A. Enable Aironet IE.
B. Enable passive client.
C. Disable AAA override.
D. Disable FlexConnect local switching.

Correct Answer: A
Section:

QUESTION 206
Refer to the exhibit.

```
interface GigabitEthernet1
 ip address 10.10.10.1 255.255.255.0
!
access-list 10 permit 10.10.10.1
!
monitor session 10 type erspan-source
 source interface Gi1
 destination
  erspan-id 10
  ip address 192.168.1.1
!
```

Refer to the exhibit. Which command filters the ERSPAN session packets only to interface GigabitEthernet1?

A. source ip 10.10.10.1

B. source interface gigabitethernet1 ip 10.10.10.1

C. filter access-group 10

D. destination ip 10.10.10.1

Correct Answer: C
Section:

QUESTION 207
An engineer is describing QoS to a client. Which two facts apply to traffic policing? (Choose two.)

A. Policing adapts to network congestion by queuing excess traffic

B. Policing should be performed as close to the destination as possible

C. Policing drops traffic that exceeds the defined rate

D. Policing typically delays the traffic, rather than drops it

E. Policing should be performed as close to the source as possible

Correct Answer: C, E
Section:

QUESTION 208
A network administrator is preparing a Python scrip to configure a Cisco IOS XE-based device on the network. The administrator is worried that colleagues will make changes to the device while the script is running. Which operation of he in client manager prevent colleague making changes to the device while the scrip is running?

A. m.lock(config='running')

B. m.lock(target='running')

C. m.freeze(target='running')

D. m.freeze(config='running')

Correct Answer: B
Section:

QUESTION 209

Refer to the exhibit.

```
FastEthernet1/0/47 - Group 1 (version 2)
    State is Standby
        7 state changes, last state change 00:00:02
    Virtual IP address is 10.1.1.1
    Active virtual MAC address is 0000.0c9f.f001
        Local virtual MAC address is 0000.0c9f.f001 (v2 default)
    Hello time 3 sec, hold time 10 sec
        Next hello sent in 0.375 secs
    Authentication MD5, key-string "cisco"
    Preemption enabled, delay min 5 secs
    Active router is 10.1.1.2, priority 255 (expires in 9.396 sec)
    Standby router is local
    Priority 100 (default 100)
    IP redundancy name is "hsrp-Fa1/0/47-1" (default)
```

Refer to the exhibit. An engineer configures HSRP and enters the show standby command. Which two facts about the network environment are derived from the output? (Choose two.)

A. The local device has a higher priority selling than the active router

B. The virtual IP address of the HSRP group is 10.1.1.1.

C. If the local device fails to receive a hello from the active router for more than 5 seconds, it becomes the active router.

D. The hello and hold timers are set to custom values.

E. If a router with a higher IP address and same HSRP priority as the active router becomes available, that router becomes the new active router 5 seconds later.

Correct Answer: B, E
Section:

QUESTION 210
Refer to the exhibit.

```
line vty 0 4
  session-timeout 30
  exec-timeout 120 0
  session-limit 30
  login local
line vty 5 15
  session-timeout 30
  exec-timeout 30 0
  session-limit 30
  login local
```

Only administrators from the subnet 10.10.10.0/24 are permitted to have access to the router. A secure protocol must be used for the remote access and management of the router instead of cleartext protocols. Which configuration achieves this goal?

```
access-list 23 permit 10.10.10.0 0.0.0.255
line vty 0 4
access-class 23 in
transport input ssh
```

```
access-list 23 permit 10.10.10.0 0.0.0.255
line vty 0 15
access-class 23 in
transport input ssh
```

```
access-list 23 permit 10.10.10.0 0.0.0.255
line vty 0 15
access-class 23 out
transport input all
```

```
access-list 23 permit 10.10.10.0 255.255.255.0
line vty 0 15
access-class 23 in
transport input ssh
```

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

Correct Answer: B
Section:

QUESTION 211
In a Cisco SD-Access fabric, which control plane protocol is used for mapping and resolving endpoints?

A. DHCP
B. VXLAN
C. SXP
D. LISP

Correct Answer: D
Section:

QUESTION 212
Refer to the exhibit.

```
R1#show ip ospf interface Gi0/0                        R2#show ip ospf interface Gi0/0
GigabitEthernet0/0 is up, line protocol is up          GigabitEthernet0/0 is up, line protocol is up
 Internet Address 172.20.0.1/24, Area 0, Attached via   Internet Address 172.20.0.2/24, Area 0, Attached via
Network Statement                                      Network Statement
 Process ID 1, RouterID 172.20.0.1, Network Type        Process ID 1, RouterID 172.20.0.2, Network Type
BROADCAST, Cost: 1                                     BROADCAST, Cost: 5
 Topology-MTID   Cost   Disabled   Shutdown             Topology-MTID   Cost   Disabled   Shutdown
Topology Name                                          Topology Name
         0        1      no         no                          0        5      no         no
Base                                                   Base
 Transmit Delay is 1 sec, State DR, Priority 1          Transmit Delay is 1 sec, State DR, Priority 1
 Designated Router (ID) 172.20.0.1, Interface address   Designated Router (ID) 172.20.0.2, Interface address
172.20.0.1                                             172.20.0.2
 No backup designated router on this network            No backup designated router on this network
 Timer intervals configured,Hello 10,Dead 40, Wait 40,  Timer intervals configured,Hello 10,Dead 40, Wait 40,
Retransmit 5                                           Retransmit 5
    oob-resync timeout 40                                  oob-resync timeout 40
    No Hellos (Passive interface)                          Hello due in 00:00:01
Supports Link-local Signaling (LLS)                    Supports Link-local Signaling (LLS)
Cisco NSF helper support enabled                       Cisco NSF helper support enabled
                                                       IETF NSF helper support enabled
```

Cisco IOS routers R1 and R2 are interconnected using interface Gi0/0. Which configuration allows R1 and R2 to form an OSPF neighborship on interface Gi0/0?

○ R2(config)#router ospf 1
  R2(config-router)#passive-interface Gi0/0

○ R2(config)#interface Gi0/0
  R2(config-if)#ip ospf cost 1

○ R1(config)#router ospf 1
  R1(config-router)#no passive-interface Gi0/0

○ R1(config)#router ospf 1
  R1(config-if)#network 172.20.0.0 0.0.0.255 area 1

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

Correct Answer: C
Section:

QUESTION 213
Refer to the exhibit.

```
R2#
*May 27 15:33:59.642: OSPF-1 ADJ   Gi1: Send DBD to 192.168.201.137 seq 0xDE7 opt 0x52 flag 0x7 len 32
*May 27 15:33:59.642: OSPF-1 ADJ   Gi1: Retransmitting DBD to 192.168.201.137 [15]
*May 27 15:33:59.645: OSPF-1 ADJ   Gi1: Rcv DBD from 192.168.201.137 seq 0xDE7 opt 0x52 flag 0x2 len 112  mtu 9100 state EXSTART
```

The OSPF neighborship fails between two routers. What is the cause of this issue?

A. The OSPF router ID is missing on this router.

B. The OSPF process is stopped on the neighbor router.

C. There is an MTU mismatch between the two routers.

D. The OSPF router ID is missing on the neighbor router.

Correct Answer: C
Section:
Explanation:
cisco_R2(config-subif)#do debug ip osp adj
OSPF adjacency debugging is on cisco_R2(config-subif)#ip mtu 1111 <<<<<<<<<<<<<<<<< cisco_R2(config-subif)# cisco_R2(config-subif)# cisco_R2(config-subif)#do clear ip ospf
!!!debug shows this:
cisco_R2(config-subif)#
*Dec 23 13:02:27.164: OSPF-1 ADJ Et0/0.10: Rcv DBD from 6.6.6.6 seq 0x19FD opt 0x52 flag 0x7 len
32 mtu 1500 state EXSTART <<<<<<<<<<<<<<
*Dec 23 13:02:27.164: OSPF-1 ADJ Et0/0.10: Nbr 6.6.6.6 has larger interface MTU <<<<<<<<<<
*Dec 23 13:02:27.164: OSPF-1 ADJ Et0/0.10: Rcv DBD from 6.6.6.6 seq 0x26B opt 0x52 flag 0x2 len
112 mtu 1500 state EXSTART
*Dec 23 13:02:27.164: OSPF-1 ADJ Et0/0.10: Nbr 6.6.6.6 has larger interface MTU
*Dec 23 13:02:27.395: OSPF-1 ADJ Et0/0.10: Rcv DBD from 6.6.6.6 seq 0x26B opt 0x52 flag 0x2 len
112 mtu 1500 state EXSTART

QUESTION 214
Which function does a Cisco SD-Access extended node perform?

A. provides fabric extension to nonfabric devices through remote registration and configuration

B. performs tunneling between fabric and nonfabric devices to route traffic over unknown networks

C. used to extend the fabric connecting to downstream nonfabric enabled Layer 2 switches

D. in charge of establishing Layer 3 adjacencies with nonfabric unmanaged node

Correct Answer: C
Section:

QUESTION 215
DRAG DROP
Drag and drop the characteristics from the left onto the infrastructure types on the right.

Select and Place:

| enterprise owns the hardware |
| low capital expenditure |
| provider maintains the infrastructure |
| slow upgrade lifecycle |
| high capital expenditure |
| fast upgrade lifecycle |

On-Premises Infrastructure

Cloud-Hosted Infrastructure

Correct Answer:

On-Premises Infrastructure
- enterprise owns the hardware
- slow upgrade lifecycle
- high capital expenditure

Cloud-Hosted Infrastructure
- low capital expenditure
- provider maintains the infrastructure
- fast upgrade lifecycle

Section:
Explanation:

QUESTION 216
DRAG DROP
Drag and drop the characteristics from the left onto the correct infrastructure deployment type on the right.

Select and Place:

Answer Area

| significant initial investment but lower reoccurring costs |
| pay-as-you-go model |
| physical location of data can be defined in contract with provider |
| very scalable and fast delivery of changes in scale |
| company has control over the physical security of equipment |

On-premises

Cloud

Correct Answer:

Answer Area

On-premises

significant initial investment but lower reoccurring costs

company has control over the physical security of equipment

Cloud

pay-as-you-go model

physical location of data can be defined in contract with provider

very scalable and fast delivery of changes in scale

Section:
Explanation:

QUESTION 217
DRAG DROP
Drag and drop the QoS mechanisms from the left onto their descriptions on the right.

Select and Place:

Answer Area

service policy	mechanism to create a scheduler for packets prior to forwarding
policy map	mechanism to apply a QoS policy to an interface
DSCP	portion of the IP header used to classify packets

Correct Answer:

Answer Area

	policy map
	service policy
	DSCP

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Section:
Explanation:

QUESTION 218
DRAG DROP
Drag and drop the LISP components from the left onto the functions they perform on the right. Not all options are used.

Select and Place:

LISP map resolver	accepts LISP encapsulated map requests
LISP proxy ETR	learns of EID prefix mapping entries from an ETR
LISP route reflector	receives traffic from LISP sites and sends it to non-LISP sites
LISP ITR	receives packets from site-facing interfaces
LISP map server	

Correct Answer:

	LISP map resolver
	LISP map server
LISP route reflector	LISP proxy ETR
	LISP ITR
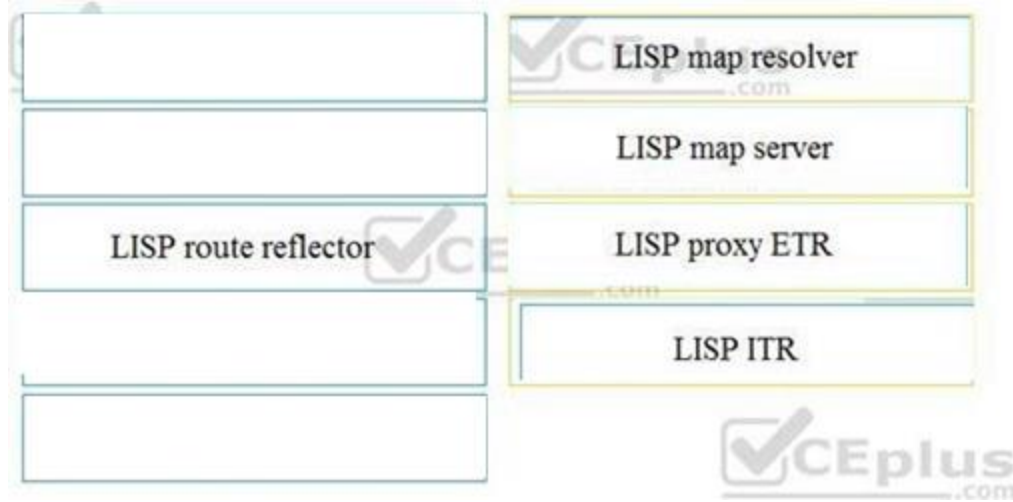
Section:
Explanation:
Reference: https://www.cisco.com/c/en/us/td/docs/solutions/Enterprise/Data_Center/DCI/5-
0/LISPmobility/DCI_LISP_Host_Mobility/LISPmobile_2.html#:~:text=%E2%80%93%20Proxy%20ITR%20(PITR)%3A%20A,devices%20deployed%20at%20LISP%20sites.

QUESTION 219
If the maximum power level assignment for global TPC 802.11a/n/ac is configured to 10 dBm, which power level effectively doubles the transmit power?

A. 13dBm
B. 14 dBm
C. 17dBm
D. 20 dBm

Correct Answer: A
Section:
Explanation:
Suppose a transmitter is configured for a power level of 10 dBm. A cable with 5-dB loss connects the transmitter to an antenna with an 8-dBi gain. The resulting EIRP of the system is EIRP = 10 dBm – 5 dB + 8 dBi = 13 dBm

QUESTION 220
Reter to the exhibit.


```
R1#show ip interface brief | include 192.168.12
FastEthernet0/0    192.168.12.1   YES manual up          up

R1#ping vrf CUST-A 192.168.12.2
Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 192.168.12.2, timeout is 2 seconds:
!!!!!
Success rate is 100 percent (5/5), round-trip min/avg/max = 1/1/1 ms

R1#show ip arp 192.168.12.2
R1#
```

Refer to the exhibit. A network engineer checks connectivity between two routers. The engineer can ping the remote endpoint but cannot see an ARP entry. Why is there no ARP entry?

A. The ping command must be executed in the global routing table.
B. Interface FastEthernet0/0 Is configured in VRF CUST-A, so the ARP entry is also in that VRF.
C. When VRFs are used. ARP protocol must be enabled In each VRF.

D. When VRFs are used. ARP protocol is disabled in the global routing table.

Correct Answer: B
Section:

QUESTION 221
AN engineer is implementing MPLS OAM to monitor traffic within the MPLS domain. Which action must the engineer perform to prevent from being forwarded beyond the service provider domain when the LSP is down?

A. Disable IP redirects only on outbound interfaces
B. Implement the destination address for the LSP echo request packet in the 127.x.y.z/8 network
C. Disable IP redirects on all ingress interfaces
D. Configure a private IP address as the destination address of the headend router of Cisco MPLS TE.

Correct Answer: C
Section:

QUESTION 222
An engineer is implementing a Cisco MPLS TE tunnel to improve the streaming experience for the clients of a video-on-demand server. Which action must the engineer perform to configure extended discovery to support the MPLS LDP session between the headend and tailend routers?

A. Configure the interface bandwidth to handle TCP and UDP traffic between the LDP peers
B. Configure a Cisco MPLS TE tunnel on both ends of the session
C. Configure an access list on the interface to permit TCP and UDP traffic
D. Configure a targeted neighbor session.

Correct Answer: B
Section:

QUESTION 223
Which protocol infers that a YANG data model is being used?

A. SNMP
B. NX-API
C. REST
D. RESTCONF

Correct Answer: D
Section:
Explanation:
YANG (Yet another Next Generation) is a data modeling language for the definition of data sent over network management protocols such as the NETCONF and RESTCONF.

QUESTION 224
Refer to the exhibit.

```
Switch1#show run interface Gi0/0        Switch2#show run interface Gi0/0
!                                       !
interface GigabitEthernet0/0            interface GigabitEthernet0/0
 switchport trunk encapsulation dot1q    negotiation auto
 switchport mode trunk                   channel-group 1 mode active
 negotiation auto                       end
 channel-group 1 mode active
end

Switch1#show run interface Gi0/1        Switch2#show run interface Gi0/1
!                                       !
interface GigabitEthernet0/1            interface GigabitEthernet0/1
 switchport trunk encapsulation dot1q    negotiation auto
 switchport mode trunk                   channel-group 1 mode passive
 negotiation auto                       end
 channel-group 1 mode passive
end
```

The port channel between the switches does not work as expected. Which action resolves the issue?

A. Interface Gi0/0 on Switch2 must be configured as passive.

B. Interface Gi0/1 on Switch1 must be configured as desirable.

C. interface Gi0/1 on Switch2 must be configured as active.

D. Trucking must be enabled on both Interfaces on Switch2.

Correct Answer: C
Section:

QUESTION 225
What is an emulated machine that has dedicated compute memory, and storage resources and a fully installed operating system?

A. Container

B. Mainframe

C. Host

D. virtual machine

Correct Answer: B
Section:

QUESTION 226
Refer to the exhibit.

```
flow monitor FLOW-MONITOR-1
 record netflow ipv6 original-input
 exit
!
sampler SAMPLER-1
 mode deterministic 1 out-of 2
 exit
!
ip cef
ipv6 cef
!
interface GigabitEthernet 0/0/0
 ipv6 address 2001:DB8:2:ABCD::2/48
 ipv6 flow monitor FLOW-MONITOR-1 sampler SAMPLER-1 input
!
```

What is the effect of introducing the sampler feature into the Flexible NetFlow configuration on the router?

A. NetFlow updates to the collector are sent 50% less frequently.

B. Every second IPv4 packet is forwarded to the collector for inspection.

C. CPU and memory utilization are reduced when compared with what is required for full NetFlow.

D. The resolution of sampling data increases, but it requires more performance from the router.

Correct Answer: C
Section:

QUESTION 227
Reter to the exhibit.

An administrator troubleshoots intermittent connectivity from internal hosts to an external public server. Some internal hosts can connect to the server while others receive an ICMP Host Unreachable message and these hosts change over time. What is the cause of this issue?

A. The translator does not use aOdress overloading

B. The NAT ACL does not match alt internal hosts

C. The NAT ACL and NAT pool share the same name

D. The NAT pool netmask rs excessively wide

Correct Answer: B
Section:

QUESTION 228
Reter to the exhibit.

```
<interface>
    <Loopback>
        <name>100</name>
        <enabled>true</enabled>
    </Loopback>
</interface>
```

Refer to the exhibit. What is achieved by this code?

A. It unshuts the loopback interface
B. It renames the loopback interface
C. It deletes the loopback interface
D. It displays the loopback interface

Correct Answer: D
Section:

QUESTION 229
An engineer must configure an EXEC authorization list that first checks a AAA server then a local username. If both methods fail, the user is denied. Which configuration should be applied?

A. aaa authorization exec default local group tacacs+
B. aaa authorization exec default local group radius none
C. aaa authorization exec default group radius local none
D. aaa authorization exec default group radius local

Correct Answer: D
Section:

QUESTION 230
What is a characteristics of a vSwitch?

A. supports advanced Layer 3 routing protocols that are not offered by a hardware switch
B. enables VMs to communicate with each other within a virtualized server
C. has higher performance than a hardware switch
D. operates as a hub and broadcasts the traffic toward all the vPorts

Correct Answer: B
Section:

QUESTION 231
What is a characteristic of a Type I hypervisor?

A. It is installed on an operating system and supports other operating systems above it.
B. It is referred to as a hosted hypervisor.
C. Problems in the base operating system can affect the entire system.
D. It is completely independent of the operating system.

Correct Answer: D
Section:

QUESTION 232
Which two characteristics apply to the endpoint security aspect of the Cisco Threat Defense architecture? (Choose two.)

A. detect and black ransomware in email attachments
B. outbound URL analysis and data transfer controls
C. user context analysis
D. blocking of fileless malware in real time
E. cloud-based analysis of threats

Correct Answer: B, D
Section:

QUESTION 233
What does the Cisco DNA Center use to enable the delivery of applications through a network and to yield analytics for innovation?

A. process adapters
B. Command Runner
C. intent-based APIs
D. domain adapters

Correct Answer: C
Section:
Explanation:
The Cisco DNA Center open platform for intent-based networking provides 360- degree extensibility across multiple components, including:
+ Intent-based APIs leverage the controller to enable business and IT applications to deliver intent to the network and to reap network analytics and insights for IT and business innovation. These enable APIs that allow Cisco DNA Center to receive input from a variety of sources, both internal to IT and from line-of-business applications, related to application policy, provisioning, software image management, and assurance.
… Reference: https://www.cisco.com/c/en/us/products/collateral/cloud-systemsmanagement/dna-center/nb-06-dna-cent-plat-sol-over-cte-en.html

QUESTION 234
What NTP Stratum level is a server that is connected directly to an authoritative time source?

A. Stratum 0
B. Stratum 1
C. Stratum 14
D. Stratum 15

Correct Answer: B
Section:
Explanation:

QUESTION 235
Refer to the exhibit.
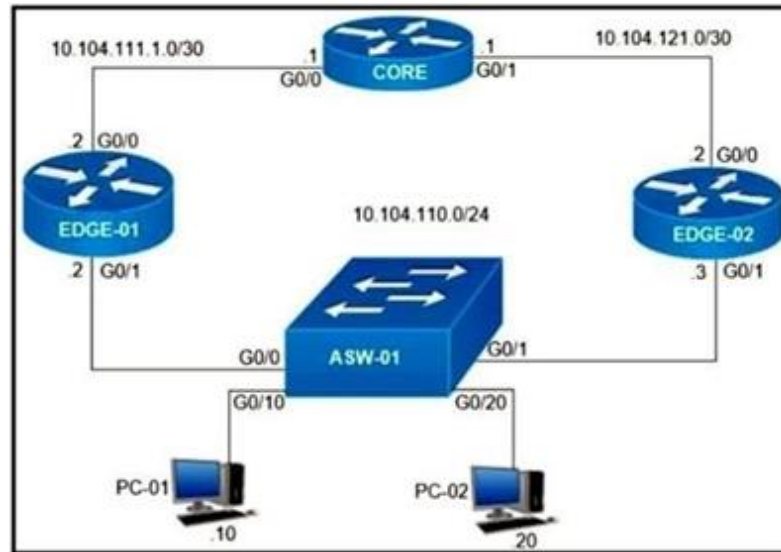
On which interfaces should VRRP commands be applied to provide first hop redundancy to PC-01 and PC-02?

A. G0/0 and G0/1 on Core
B. G0/0 on Edge-01 and G0/0 on Edge-02
C. G0/1on Edge-01 and G0/1 on Edge-02
D. G0/0 and G0/1 on ASW-01

Correct Answer: C
Section:

QUESTION 236

Refer to the exhibit. Which result does the python code achieve?

A. The code encrypts a base64 decrypted password.
B. The code converts time to the "year/month/day" time format.
C. The code converts time to the yyyymmdd representation.
D. The code converts time to the Epoch LINUX time format.

Correct Answer: B
Section:

QUESTION 237
What is the function of vBond in a Cisco SD-WAN deployment?

A. initiating connections with SD-WAN routers automatically
B. pushing of configuration toward SD-WAN routers

C. onboarding of SD-WAN routers into the SD-WAN overlay

D. gathering telemetry data from SD-WAN routers

Correct Answer: C
Section:

QUESTION 238
When using BFD in a network design, which consideration must be made?

A. BFD is used with first hop routing protocols to provide subsecond convergence.

B. BFD is more CPU-intensive than using reduced hold timers with routing protocols.

C. BFD is used with dynamic routing protocols to provide subsecond convergence.

D. BFD is used with NSF and graceful to provide subsecond convergence.

Correct Answer: C
Section:

QUESTION 239
DRAG DROP
Drag and drop the characteristics from the left onto the correct infrastructure deployment types on the right.

Select and Place:

Answer Area

On Premises
customizable hardware, purpose-built systems	
easy to scale and upgrade	
more suitable for companies with specific regulatory or security requirements	
resources can be over or underutilized as requirements vary	
requires a strong and stable internet connection	
built-in, automated data backups and recovery	

Cloud

Correct Answer:

Answer Area

On Premises

customizable hardware, purpose-built systems
more suitable for companies with specific regulatory or security requirements
resources can be over or underutilized as requirements vary

Cloud

easy to scale and upgrade
requires a strong and stable internet connection
built-in, automated data backups and recovery

Section:
Explanation:

QUESTION 240
Refer to the exhibit.
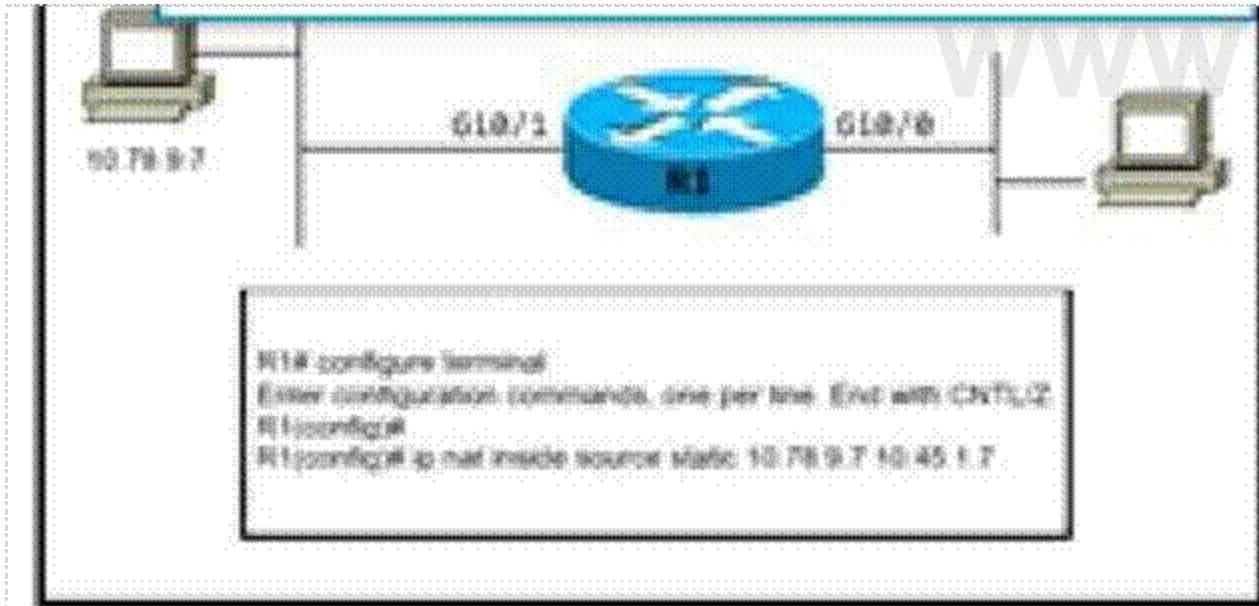
A network architect has partially configured static NAT. which commands should be asked to complete the configuration?

A. R1(config)#interface GigabitEthernet0/0 R1(config)#ip pat outside
   R1(config)#interface GigabitEthernet0/1 R1(config)#ip pat inside
B. R1(config)#interface GigabitEthernet0/0 R1(config)#ip nat outside
   R1(config)#interface GigabitEthernet0/1 R1(config)#ip nat inside
C. R1(config)#interface GigabitEthernet0/0 R1(config)#ip nat inside
   R1(config)#interface GigabitEthernet0/1 R1(config)#ip nat outside
D. R1(config)#interface GigabitEthernet0/0 R1(config)#ip pat inside
   R1(config)#interface GigabitEthernet0/1 R1(config)#ip pat outside

Correct Answer: B
Section:

QUESTION 241
How does the EIGRP metric differ from the OSPF metric?

A. The EIGRP metric is calculated based on bandwidth only. The OSPF metric is calculated on delay only.

B. The EIGRP metric is calculated based on delay only. The OSPF metric is calculated on bandwidth and delay.

C. The EIGRP metric Is calculated based on bandwidth and delay. The OSPF metric is calculated on bandwidth only.

D. The EIGRP metric Is calculated based on hop count and bandwidth. The OSPF metric is calculated on bandwidth and delay.

Correct Answer: C
Section:
Explanation:
By default, EIGRP metric is calculated: metric = bandwidth + delay While OSPF is calculated by:
OSPF metric = Reference bandwidth / Interface bandwidth in bps
(Or Cisco uses 100Mbps (108) bandwidth as reference bandwidth. With this bandwidth, our equation would be:
Cost = 108/interface bandwidth in bps)

QUESTION 242
What is the difference between a RIB and a FIB?

A. The RIB is used to make IP source prefix-based switching decisions

B. The FIB is where all IP routing information is stored

C. The RIB maintains a mirror image of the FIB

D. The FIB is populated based on RIB content

Correct Answer: D
Section:
Explanation:
CEF uses a Forwarding Information Base (FIB) to make IP destination prefix-based switching decisions. The FIB is conceptually similar to a routing table or information base. It maintains a mirror image of the forwarding information contained in the IP routing table. When routing or topology changes occur in the network, the IP routing table is updated, and those changes are reflected in the FIB. The FIB maintains next-hop address information based on the information in the IP routing table.
Because there is a one-to-one correlation between FIB entries and routing table entries, the FIB contains all known routes and eliminates the need for route cache maintenance that is associated with earlier switching paths such as fast switching and optimum switching.
Note: In order to view the Routing information base (RIB) table, use the "show ip route" command.
To view the Forwarding Information Base (FIB), use the "show ip cef" command. RIB is in Control plane while FIB is in Data plane.

QUESTION 243
An engineer must create an EEM applet that sends a syslog message in the event a change happens in the network due to trouble with an OSPF process. Which action should the engineer use?

```
event manager applet LogMessage
  event routing network 172.30.197.0/24 type all
```

A. action 1 syslog msg "OSPF ROUTING ERROR"

B. action 1 syslog send "OSPF ROUTING ERROR"

C. action 1 syslog pattern "OSPF ROUTING ERROR"

D. action 1syslog write "OSPF ROUTING ERROR"

Correct Answer: C
Section:

QUESTION 244
What do Cisco DNA southbound APIs provide?

A. Interface between the controller and the network devices
B. NETCONF API interface for orchestration communication
C. RESful API interface for orchestrator communication
D. Interface between the controller and the consumer

Correct Answer: A
Section:
Explanation:
The Southbound API is used to communicate with network devices.
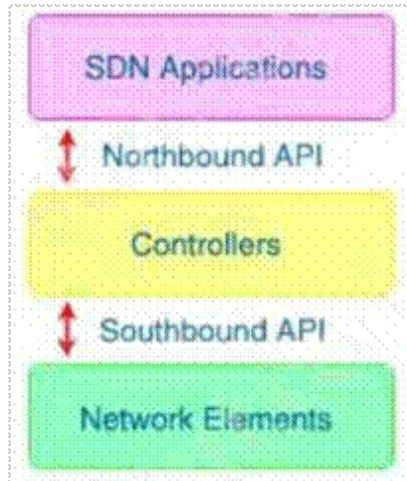
QUESTION 245
Which function does a fabric AP perform in a cisco SD-access deployment?

A. It updates wireless clients' locations in the fabric
B. It connects wireless clients to the fabric.
C. It manages wireless clients' membership information in the fabric
D. It configures security policies down to wireless clients in the fabric.

Correct Answer: B
Section:

QUESTION 246
DRAG DROP
Drag and drop the threat defense solutions from the left onto their descriptions on the right.

Select and Place:

Umbrella		provides malware protection on endpoints
AMP4E		provides IPS/IDS capabilities
FTD		performs security analytics by collecting network flows
StealthWatch		protects against email threat vector
ESA		provides DNS protection

Correct Answer:

	AMP4E
	FTD
	StealthWatch
	ESA
	Umbrella

Section:
Explanation:

QUESTION 247
DRAG DROP
Drag and drop the REST API authentication methods from the left onto their descriptions on the right.

Select and Place:

Answer Area

HTTP basic authentication		public API resource
OAuth		username and password in an encoded string
secure vault		authorization through identity provider

Correct Answer:

Answer Area

		secure vault
		HTTP basic authentication
		OAuth

Section:
Explanation:

QUESTION 248
DRAG DROP
Drag and drop the solutions that compromise Cisco Cyber Threat Defense from the left onto the objectives they accomplish on the right.

Select and Place:

Answer Area

StealthWatch		detects suspicious web activity
Identity Services Engine		analyzes network behavior and detects anomalies
Web Security Appliance		uses pxGrid to remediate security threats

Correct Answer:

Answer Area

	Web Security Appliance
	StealthWatch
	Identity Services Engine

Section:
Explanation:

QUESTION 249
In a Cisco StackWise Virtual environment, which planes are virtually combined in the common logical switch?

A. management and data
B. control and management
C. control, and forwarding
D. control and data

Correct Answer: B
Section:

QUESTION 250
Refer to the exhibit.

```
Vlan503 - Group 1
    State is Active
        1 state change, last state change 32w6d
    Virtual IP address is 10.0.3.241
    Active virtual MAC address is 0000.0c07.ac01
        Local virtual MAC address is 0000.0c07.ac01 (v1 default)
    Hello time 3 sec, hold time 10 sec
        Next hello sent in 0.064 secs
    Preemption enabled
    Active router is local
    Standby router is 10.0.3.242, priority 100 (expires in 10.624 sec)
    Priority 110 (configured 110)
    Group name is "hsrp-V1503-1" (default)
```

Which two facts does the device output confirm? (Choose two.)

A. The device sends unicast messages to its peers
B. The device's HSRP group uses the virtual IP address 10.0.3.242
C. The standby device is configured with the default HSRP priority.
D. The device is using the default HSRP hello timer
E. The device is configured with the default HSRP priority

Correct Answer: C, D
Section:

QUESTION 251

How is a data modeling language used?

A. To enable data lo be easily structured, grouped, validated, and replicated
B. To represent finite and well-defined network elements that cannot be changed
C. To model the flows of unstructured data within the infrastructure
D. To provide human readability to scripting languages

Correct Answer: A
Section:

QUESTION 252
Refer to the exhibit.

```
R1#show run | b router ospf
router ospf 1
network 192.168.10.0 0.0.0.255 area 0


R1#show run | b interface loopback0
interface loopback0
ip address 192.168.10.50 255.255.255.0
```

R2 is the neighboring router of R1. R2 receives an advertisement for network 192 168.10.50/32.
Which configuration should be applied for the subnet to be advertised with the original /24 netmask?

A.
```
R1(config)#router ospf 1
R1(config-router)#network 192.168.10.0 255.255.255.0 area 0
```

B.
```
R1(config)#interface loopback0
R1(config-if)# ip ospf 1 area 0
```

C.
```
R1(config)# interface loopback0
R1(config-if)# ip ospf network point-to-point
```

D.

```
R1(config)# interface loopback0
R1(config-if)# ip ospf network non-broadcast
```

Correct Answer: C
Section:

QUESTION 253
What is one primary REST security design principle?

A. fail-safe defaults

B. password hash

C. adding a timestamp in requests

D. OAuth

Correct Answer: A
Section:
Explanation:
Reference: https://yurisubach.com/2017/04/04/restful-api-security-principles/"Fail-safe defaultsAccess to any resource (like API endpoint) should be denied by default. Accessgranted only in case of specific permission.

QUESTION 254
Refer to the exhibit.
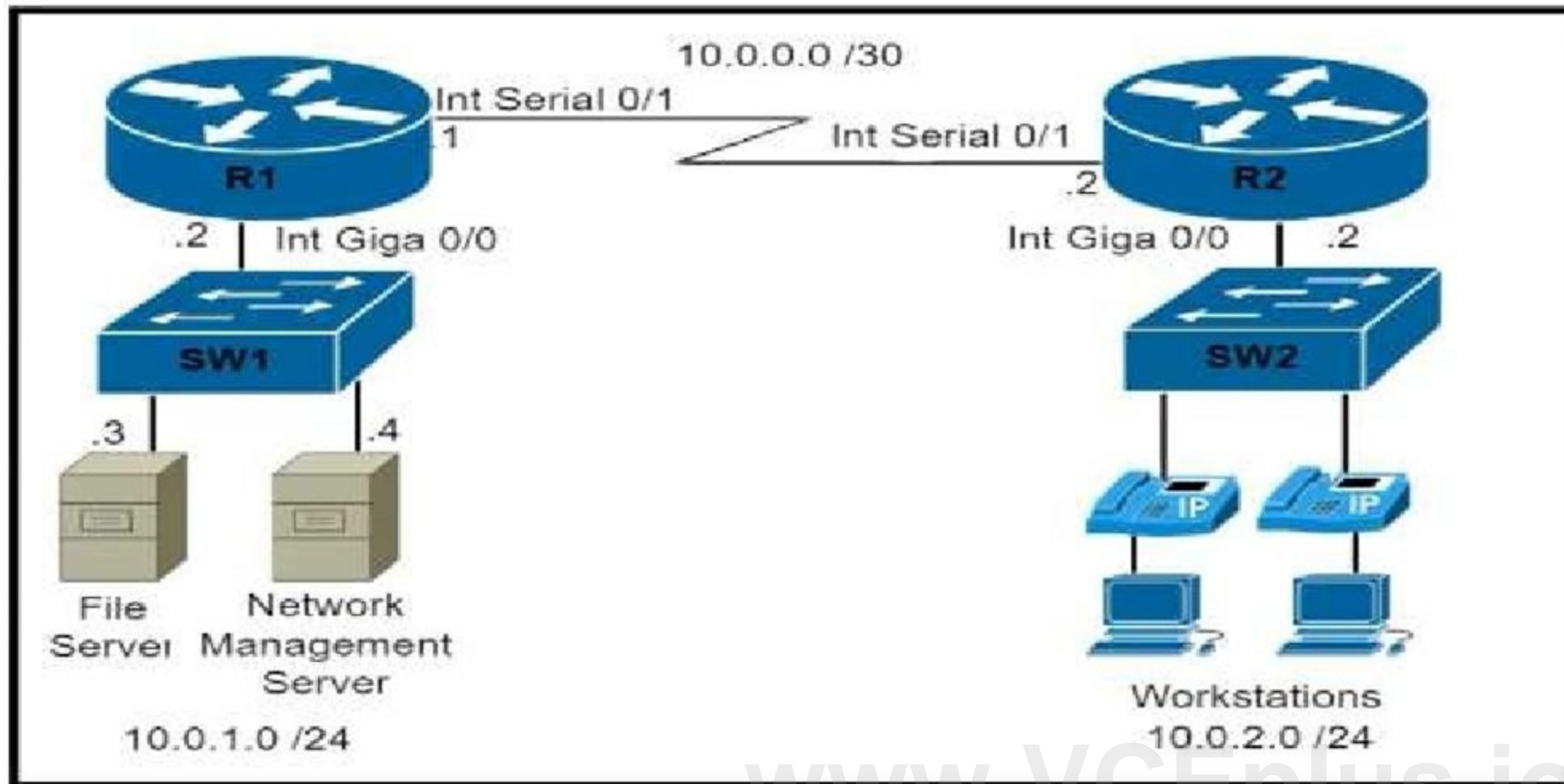
An engineer must configure and validate a CoPP policy that allows the network management server to monitor router R1 via SNMP while protecting the control plane. Which two commands or command sets must be used? (Choose two.)

A.

show quality-of-service-profile

B.

show ip interface brief

C.

```
access-list 150 permit udp 10.0.1.4 0.0.0.0 host 10.0.1.2 eq snmp

class-map match-all CoPP-management
 match access-group 150

policy-map CoPP-policy
class CoPP-management
  police 8000 conform-action transmit  exceed-action transmit
      violate-action transmit

control-plane
 Service-policy input CoPP-policy
```

D.

```
show policy-map control-plane
```

E.

```
access-list 150 permit udp 10.0.1.4 0.0.0.0 host 10.0.1.2 eq snmp
access-list 150 permit udp 10.0.1.4 0.0.0.0 eq snmp host 10.0.1.2

class-map match-all CoPP-management
 match access-group 150

policy-map CoPP-policy
 class CoPP-management
  police 8000 conform-action transmit  exceed-action transmit
     violate-action drop

control-plane
 Service-policy input CoPP-policy
```

Correct Answer: A, E
Section:

QUESTION 255
Refer to the exhibit.

```
Router1#
Router1#show run int tunnel 0
Building configuration...

Current configuration : 95 bytes
!
interface Tunnel0
  ip address 172.16.1.1 255.255.255.0
  tunnel destination 192.168.10.2
end


Router1#show ip int br
Interface               IP-Address       OK? Method Status                 Protocol
GigabitEthernet0/0      192.168.1.1      YES manual up                     up
GigabitEthernet0/1      unassigned       YES unset  administratively down  down
GigabitEthernet0/2      unassigned       YES unset  administratively down  down
GigabitEthernet0/3      unassigned       YES unset  administratively down  down
Loopback0               192.168.10.1     YES manual up                     up
Tunnel0                 172.16.1.1       YES manual up                     down
Router1#
```

Which command must be applied to Router 1 to bring the GRE tunnel to an up/up state?

A. Routed (config if funnel mode gre multipoint

B. Router1(config-if)&tunnel source Loopback0

C. Router1(config-if)#tunnel source GigabitEthernet0/1

D. Router1 (config)#interface tunnel0

Correct Answer: B
Section:

QUESTION 256
Which method is used by an AP to join HA controllers and is configured in NVRAM?

A. stored WLC information

B. DNS

C. IP Helper Addresses

D. Primary/Secondary/Tertiary/Backup

Correct Answer: A
Section:
Explanation:
An AP can be "primed" with up to three controllers-a primary, a secondary, and a tertiary. These are stored in nonvolatile memory so that the AP can remember them after a reboot or power failure.

QUESTION 257
Refer to the exhibit.

```
logging buffered discriminator Disc1
logging monitor discriminator Disc1
logging host 10.1.55.237 discriminator Disc1
```

A network engineer is enabling logging to a local buffer, to the terminal and to a syslog server for all debugging level logs filtered by facility code 7. Which command is needed to complete this configuration snippet?

A. logging buffered debugging

B. logging discriminator Disc1 severity includes 7

C. logging buffered discriminator Disc1 debugging

D. logging discriminator Disc1 severity includes 7 facility includes fac7

Correct Answer: D
Section:

QUESTION 258
How can an engineer prevent basic replay attacks from people who try to brute force a system via REST API?

A. Add a timestamp to the request In the API header.

B. Use a password hash

C. Add OAuth to the request in the API header.

D. UseHTTPS

Correct Answer: B
Section:

QUESTION 259
When is the Design workflow used In Cisco DNA Center?

A. in a greenfield deployment, with no existing infrastructure

B. in a greenfield or brownfield deployment, to wipe out existing data

C. in a brownfield deployment, to modify configuration of existing devices in the network

D. in a brownfield deployment, to provision and onboard new network devices

Correct Answer: A
Section:
Explanation:
The Design area is where you create the structure and framework of your network, including the physical topology, network settings, and device type profiles that you can apply to devices throughout your network. Use the Design workflow if you do not already have an existing infrastructure. If you have an existing infrastructure, use the Discovery feature.
https://www.cisco.com/c/en/us/td/docs/cloud-systems-management/network-automation-andmanagement/dna-center/2-1-2/user_guide/b_cisco_dna_center_ug_2_1_2/b_cisco_dna_center_ug_2_1_1_chapter_0110.html
Reference: https://synoptek.com/insights/it-blogs/greenfield-vs-brownfield-software-development/"Greenfield development refers to developing a system for a totally new environment and requiresdevelopment from a clean slate – no legacy code around. It is an approach used when you're startingfresh and with no restrictions or dependencies."

QUESTION 260
Refer to the exhibit.
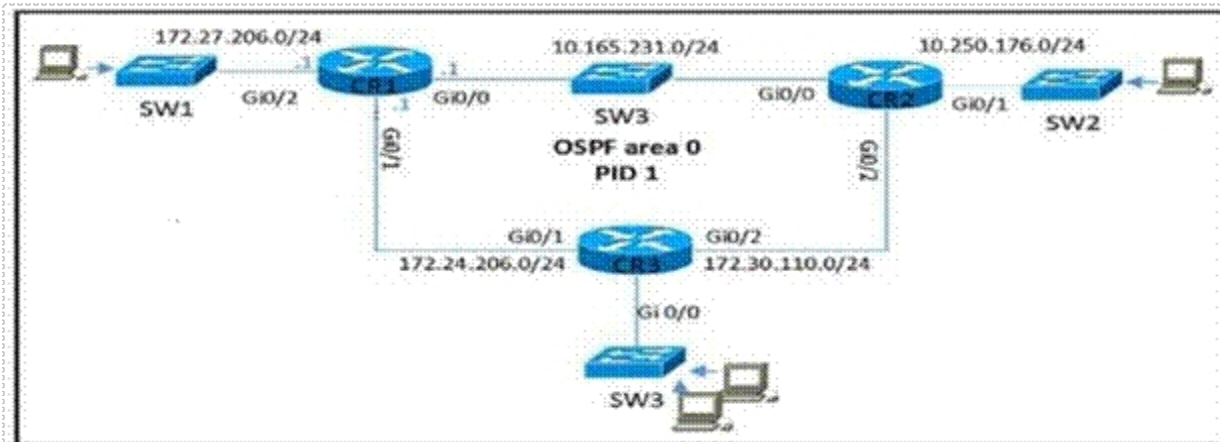
CR2 and CR3 ate configured with OSPF. Which configuration, when applied to CR1. allows CR1 to exchange OSPF Information with CR2 and CR3 but not with other network devices or on new Interfaces that are added to CR1?

A.

```
router ospf 1
network 0.0.0.0 255.255.255.255 area 0
passive-interface GigabitEthernet0/2
```

B.

```
router ospf 1
network 10.165.231.0  0.0.0.255 area 0
network 172.27.206.0 0.0.0.255  area 0
network 172.24.206.0  0.0.0.255  area 0
```

C.

```
interface Gi0/2
ip ospf 1 area 0

router ospf 1
passive-interface GigabitEthernet0/2
```

D.

```
router ospf 1
network 10.0.0.0 0.255.255.255 area 0
network 172.16.0.0 0.15.255.255 area 0
passive-interface GigabitEthernet0/2
```

Correct Answer: D
Section:

QUESTION 261
Which protocol is responsible for data plane forwarding in a Cisco SD-Access deployment?

A. VXLAN
B. IS-IS
C. OSPF
D. LISP

Correct Answer: A
Section:

QUESTION 262

```
RP/0/0/CPU0:R2#debug isis adjacencies
RP/0/0/CPU0:Apr 2 20:57:00.421 : isis[1010]: RECV P2P IIH (L2)
from GigabitEthernet0/0/0/0 SNPA fa16.3ebe.a7bc: System ID R2,
Holdtime 30, length 1429
RP/0/0/CPU0:Apr 2 20:57:01.761 : isis[1010]: SEND P2P IIH (L1)
on GigabitEthernet0/0/0/0: Holdtime 30s, Length 41
```

Refer to the exhibit. A network operator is attempting to configure an IS-IS adjacency between two routers, but the adjacency cannot be established. To troubleshoot the problem, the operator collects this debugging output. Which interfaces are misconfigured on these routers?

A. The peer router interface is configured as Level 1 only, and the R2 interface is configured as Level 2 only
B. The R2 interface is configured as Level 1 only, and the Peer router interface is configured as Level 2 only
C. The R2 interface is configured as point-to-point, and the peer router interface is configured as multipoint.
D. The peer router interface is configured as point-as-point, and the R2 interface is configured as multipoint.

Correct Answer: C
Section:

QUESTION 263
An administrator must enable Telnet access to Router X using the router username and password database for authentication. Which configuration should be applied?

A.

```
RouterX(config)# line aux 0
RouterX(config-line)# password cisco
RouterX(config-line)# login
```

B.

```
RouterX(config)# aaa new-model
RouterX(config)# aaa authentication login auth-list local
```

C.

```
RouterX(config)# line vty 0 4
RouterX(config-line)# login local
RouterX(config-line)# end
```

D.

```
RouterX(config)# line vty 0 4
RouterX(config-line)# login
RouterX(config-line)# end
```

Correct Answer: D
Section:

QUESTION 264
DRAG DROP
An engineer creates the configuration below. Drag and drop the authentication methods from the left into the order of priority on the right. Not all options are used.
R1#sh run | i aaa
aaa new-model
aaa authentication login default group ACE group AAA_RADIUS local-case
aaa session-id common
R1#

Select and Place:

Answer Area

tacacs servers of group ACE	priority 1
local configured username in non-case-sensitive format	priority 2
local configured username in case-sensitive format	priority 3
AAA servers of ACE group	priority 4
AAA servers of AAA_RADIUS group	
If no method works, then deny login	

Correct Answer:

Answer Area

tacacs servers of group ACE	AAA servers of ACE group
local configured username in non-case-sensitive format	AAA servers of AAA_RADIUS group
	local configured username in case-sensitive format
	If no method works, then deny login

Section:
Explanation:

QUESTION 265
DRAG DROP
Drag and drop the characteristics from the left onto the orchestration tools that they describe on the right.

Select and Place:

Answer Area

	Ansible
uses a pull model	
uses playbooks	
prodedural	
declarative	Puppet

Correct Answer:

Answer Area

	Ansible
	uses playbooks
	prodedural
	Puppet
	uses a pull model
	declarative

Section:
Explanation:

QUESTION 266
DRAG DROP
Drag and drop the virtual components from the left onto their descriptions on the right.

Select and Place:

Answer Area

vNIC	zip file connecting a virtual machine configuration file and a virtual disk
OVA	file containing a virtual machine disk drive
VMDK	configuration file containing settings for a virtual machine such as guest OS
VMX	component of a virtual machine responsible for sending packets to the hypervisor

Correct Answer:

Answer Area

	VMX
	OVA
	VMDK
	vNIC

Section:
Explanation:

QUESTION 267
DRAG DROP
Drag and drop the characteristics from the left onto the protocols they apply to on the right.

Select and Place:

Answer Area

uses Dijkstra's Shortest Path First algorithm	**OSPF**
uses Diffused Update Algorithm	
uses bandwidth, delay, reliability, and load for routing metric	**EIGRP**
uses an election process	

Correct Answer:

Answer Area

	OSPF
	uses Dijkstra's Shortest Path First algorithm
	uses an election process
	EIGRP
	uses Diffused Update Algorithm
	uses bandwidth, delay, reliability, and load for routing metric

Section:
Explanation:

QUESTION 268
Refer to the exhibit.

```
!
interface FastEthernet0/1
 ip address 209.165.200.225 255.255.255.224
 ip nat outside
!
interface FastEthernet0/2
 ip address 10.10.10.1 255.255.255.0
 ip nat inside
!
access-list 10 permit 10.10.10.0 0.0.0.255
!
```

Refer to the exhibit. Which command allows hosts that are connected to FastEthernet0/2 to access the Internet?

A. ip nat inside source list 10 interface FastEthernet0/1 overload
B. ip nat inside source list 10 interface FastEthernet0/2 overload
C. ip nat outside source list 10 interface FastEthernet0/2 overload
D. ip nat outside source static 209.165.200.225 10.10.10.0 overload

Correct Answer: A
Section:

QUESTION 269
Which A record type should be configured for access points to resolve the IP address of a wireless LAN controller using DNS?

A. CISCO.CONTROLLER.localdomain
B. CISCO.CAPWAP.CONTROLLER.localdomain
C. CISCO-CONTROLLER.localdomain
D. CISCO-CAPWAP-CONTROLLER.localdomain

Correct Answer: D
Section:

QUESTION 270
By default, which virtual MAC address does HSRP group 30 use?

A. 00:05:0c:07:ac:30
B. 00:00:0c:07:ac:1e
C. 05:0c:5e:ac:07:30
D. 00:42:18:14:05:1e

Correct Answer: B
Section:

QUESTION 271
DRAG DROP
Drag and drop the characteristics of PIM Dense Mode from the left to the right. Not all options are used.

Select and Place:

Answer Area

builds source-based distribution trees

uses a push model to distribute multicast traffic

uses a pull model to distribute multicast traffic

uses prune mechanisms to stop unwanted multicast traffic

builds shared distribution trees

requires a rendezvous point to deliver multicast traffic

PIM Dense Mode

Correct Answer:

Answer Area

uses a pull model to distribute multicast traffic

builds shared distribution trees

requires a rendezvous point to deliver multicast traffic

PIM Dense Mode

uses a push model to distribute multicast traffic
builds source-based distribution trees
uses prune mechanisms to stop unwanted multicast traffic

Section:
Explanation:

QUESTION 272
DRAG DROP
Drag and drop the wireless elements on the left to their definitions on the right.

Select and Place:

Answer Area

beamwidth	a graph that shows the relative intensity of the signal strength of an antenna within its space
polarization	the relative increase in signal strength of an antenna in a given direction
radiation patterns	measures the angle of an antenna pattern in which the relative signal strength is half-power below the maximum value
gain	radiated electromagnetic waves that influence the orientation of an antenna within its electromagnetic field

Correct Answer:

Answer Area

	radiation patterns
	gain
	beamwidth
	polarization

Section:

Explanation:

QUESTION 273

DRAG DROP

Refer to the exhibit.
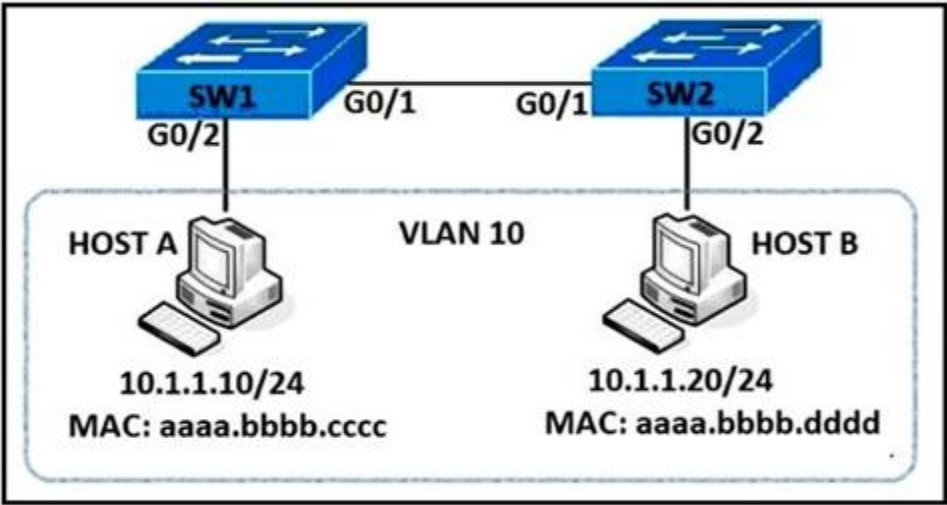
An engineer must deny HTTP traffic from host A to host B while allowing all other communication between the hosts. Drag and drop the commands into the configuration to achieve these results. Some commands may be used more than once. Not all commands are used.

Select and Place:

Answer Area

```
SW1(config)# ip access-list extended DENY-HTTP
SW1(config-ext-nacl)# [          ] tcp host 10.1.1.10 host 10.1.1.20 eq www

SW1(config)# ip access-list extended MATCH_ALL
SW1(config-ext-nacl)# [          ] ip any any

SW1(config)# vlan access-map HOST-A-B 10
SW1(config-access-map)# match ip address DENY-HTTP
SW1(config-access-map)# [          ]

SW1(config)# vlan access-map HOST-A-B 20
SW1(config-access-map)# match ip address MATCH_ALL
SW1(config-access-map)# [          ]

SW1(config)# vlan filter HOST-A-B vlan 10
```

| action drop | action forward | filter | permit | deny | match |

Correct Answer:

Answer Area

```
SW1(config)# ip access-list extended DENY-HTTP
SW1(config-ext-nacl)# [ deny ] tcp host 10.1.1.10 host 10.1.1.20 eq www

SW1(config)# ip access-list extended MATCH_ALL
SW1(config-ext-nacl)# [ permit ] ip any any

SW1(config)# vlan access-map HOST-A-B 10
SW1(config-access-map)# match ip address DENY-HTTP
SW1(config-access-map)# [ action drop ]

SW1(config)# vlan access-map HOST-A-B 20
SW1(config-access-map)# match ip address MATCH_ALL
SW1(config-access-map)# [ action forward ]

SW1(config)# vlan filter HOST-A-B vlan 10
```

| action drop | action forward | filter | permit | deny | match |

Section:
Explanation:

QUESTION 274
DRAG DROP
Drag and drop the characteristics from the left onto the orchestration tools that they describe on the right.

Select and Place:

Answer Area

	Ansible
utilizes a pull model	
utilizes a push model	
multimaster architecture	Puppet
primary/secondary architecture	

Correct Answer:

Answer Area

	Ansible
	utilizes a push model
	primary/secondary architecture
	Puppet
	utilizes a pull model
	multimaster architecture

Section:
Explanation:

QUESTION 275
DRAG DROP
Drag and drop the snippets onto the blanks within the code to construct a script that changes the routing from gateway 1 to gateway 2 from 11:00 p.m. to 12:00 a.m. (2300 to 2400) only, daily. Not all options are used, and some options may be used twice.

Select and Place:

Answer Area

```
event manager applet Routing-1
[          ] cron name Routing-1 cron-entry "0 23 [          ] "
action 1.0 cli command "enable"
action 2.0 cli command "configure terminal"
action 3.0 cli command "no ip route 0.0.0.0 0.0.0.0 192.168.1.1"
action 4.0 cli command "ip route 0.0.0.0 0.0.0.0 192.168.2.1"
event manager applet Routing-2
[          ] cron name Routing-2 cron-entry " [          ] "
action 1.0 cli command "enable"
action 2.0 cli command "configure terminal"
action 3.0 cli command "no_ip route 0.0.0.0 0.0.0.0 192.168.2.1"
action 4.0 cli command "ip route 0.0.0.0 0.0.0.0 192.168.1.1"
```

event timer	111	***
event tag	10***	daily

Correct Answer:

Answer Area

```
event manager applet Routing-1
[event timer] cron name Routing-1 cron-entry "0 23 [***] "
action 1.0 cli command "enable"
action 2.0 cli command "configure terminal"
action 3.0 cli command "no ip route 0.0.0.0 0.0.0.0 192.168.1.1"
action 4.0 cli command "ip route 0.0.0.0 0.0.0.0 192.168.2.1"
event manager applet Routing-2
[event timer] cron name Routing-2 cron-entry " [10***] "
action 1.0 cli command "enable"
action 2.0 cli command "configure terminal"
action 3.0 cli command "no_ip route 0.0.0.0 0.0.0.0 192.168.2.1"
action 4.0 cli command "ip route 0.0.0.0 0.0.0.0 192.168.1.1"
```

event timer	111	***
event tag	10***	daily

Section:
Explanation:

QUESTION 276
DRAG DROP
Drag and drop the characteristics from the left onto the technology types on the right.

Select and Place:

Answer Area

This type of technology provides automation across multiple technologies and domains.	Configuration Management
This type of technology enables consistent configuration of infrastructure resources.	
Puppet is used for this type of technology.	Orchestration
Ansible is used for this type of technology.	

Correct Answer:

Answer Area

	Configuration Management
	This type of technology provides automation across multiple technologies and domains.
	Ansible is used for this type of technology.
	Orchestration
	This type of technology enables consistent configuration of infrastructure resources.
	Puppet is used for this type of technology.

Section:

Explanation:

Answer Area

	Configuration Management
	This type of technology provides automation across multiple technologies and domains.
	Ansible is used for this type of technology.
	Orchestration
	This type of technology enables consistent configuration of infrastructure resources.
	Puppet is used for this type of technology.

QUESTION 277

DRAG DROP

Drag and drop the characteristics from the left onto the routing protocols they describe on the right.

Select and Place:

Answer Area

	EIGRP
sends hello packets every 5 seconds on high-bandwidth links	
uses virtual links to link an area that does not have a connection to the backbone	OSPF
cost is based on interface bandwidth	

Correct Answer:

Answer Area

EIGRP	
	sends hello packets every 5 seconds on high-bandwidth links

OSPF	
	uses virtual links to link an area that does not have a connection to the backbone
	cost is based on interface bandwidth

Section:
Explanation:

QUESTION 278
DRAG DROP
Drag and drop the tools from the left onto the agent types on the right.
Select and Place:

Select and Place:

Answer Area

Puppet

Ansible

SaltStack

Agent-Based

Agentless

Correct Answer:

Answer Area

Agent-Based

Puppet

SaltStack

Agentless

Ansible

QUESTION 279
DRAG DROP
Drag and drop the characteristics from the left onto the infrastructure deployment models on the right.

Select and Place:

Answer Area

Costs for this model are considered CapEx.	**On-Premises**
This model improves elasticity of resources.	
This model enables complete control of the servers.	**Cloud**
This model reduces management overhead by leveraging provider-managed resources.	

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Correct Answer:

Answer Area

On-Premises
- Costs for this model are considered CapEx.
- This model enables complete control of the servers.

Cloud
- This model improves elasticity of resources.
- This model reduces management overhead by leveraging provider-managed resources.

Section:
Explanation:

QUESTION 280
DRAG DROP
Drag and drop the LISP components on the left to their descriptions on the right. Not all options are used.

Select and Place:

map server	IPv4 or IPv6 address of an egress tunnel router that is Internet facing or network core facing
map resolver	receives map-request messages from ITR and searches for the appropriate ETR by consulting mapping database
RLOC	encapsulates LISP packets coming from inside of the LISP site to destinations outside of the site
ITR	

Correct Answer:

	RLOC
map resolver	map server
	ITR

Section:
Explanation:

QUESTION 281
DRAG DROP
An engineer plans to use Python to convert text files that contain device information to JSON Drag and drop the code snippets from the bottom onto the blanks in the code to construct the request. Not all options are used.

Select and Place:

```
import json

input_file = 'raw-data.txt'
dictionary_1 = {}
fields = ['Device_type', 'IP_Address', 'IOS_type', 'Username', 'Password']
```

<highlighted blank>

```
    l = 1
    for line in text:
        description = list(line.strip().split(None, 4))
        print(description)
        Device_Number = 'Device' + str(l)
        i = 0
        dictionary_2 = {}
        while i < len(fields):
            dictionary_2[fields[i]] = description[i]
            i = i + 1
        dictionary_1[Device_Number] = dictionary_2
        l = l + 1
```

<highlighted blank>

```
json.dump(dictionary_1, out_file, indent=4)
```

<highlighted blank>

raw-data.txt

```
{
    "Device1": {
        "Device_type": "switch",
        "IOS_type": "ios",
        "IP_Address": "10.1.1.1",
        "Username": "user1",
        "Password": "pass1"
    },
    "Device2": {
        "Device_type": "router",
        "IOS_type": "ios-xr",
        "IP_Address": "10.1.1.2",
        "Username": "user2",
        "Password": "pass2"
    },
    "Device3": {
        "Device_type": "nexus-9k",
        "IOS_type": "nx-os",
        "IP_Address": "10.1.1.3",
        "Username": "user3",
        "Password": "pass3"
    }
}
```

Output of Python Code

```
switch ios 10.1.1.1 user1 pass1
router ios-xr 10.1.1.2 user2 pass2
nexus-9k nx-os 10.1.1.3 user3 pass3
```

Draggable options:

out_file.close(out_file)	with open(input_file) as text:
with open(raw-data) as text:	out_file.close()
out_file = open ("Json-Output.json", "w")	out_file = open ("Json-Output.json", "r")

Correct Answer:

Answer Area

```
import json

input_file = 'raw-data.txt'
dictionary_1 = {}
fields = ['Device type', 'IP_Address', 'IOS_type', 'Username', 'Password']
```
┌───┐
│   with open(raw-data) as text: │
└───┘
```
    l = 1
    for line in text:
        description = list(line.strip().split(None, 4))
        print(description)
        Device_Number = 'Device' + str(l)
        i = 0
        dictionary_2 = {}
        while i < len(fields):
            dictionary_2[fields[i]] = description[i]
            i = i + 1
        dictionary_1[Device_Number] = dictionary_2
        l = l + 1
```
┌───┐
│   out_file = open ("Json-Output.json", "w")│
└───┘
```
json.dump(dictionary_1, out_file, indent=4)
```
┌───┐
│   out_file.close()   │
└───┘

Output of Python Code

```
    switch ios 10.1.1.1 user1 pass1
    router ios-xr 10.1.1.2 user2 pass2
    nexus-9k nx-os 10.1.1.3 user3 pass3
```

raw-data.txt

```
{
    "Device1": {
        "Device_type": "switch",
        "IOS_type": "ios",
        "IP_Address": "10.1.1.1",
        "Username": "user1",
        "Password": "pass1"
    },
    "Device2": {
        "Device_type": "router",
        "IOS_type": "ios-xr",
        "IP_Address": "10.1.1.2",
        "Username": "user2",
        "Password": "pass2"
    },
    "Device3": {
        "Device_type": "nexus-9k",
        "IOS_type": "nx-os",
        "IP_Address": "10.1.1.3",
        "Username": "user3",
        "Password": "pass3"
    }
}
```

┌───┐ ┌───┐
│   out_file.close(out_file)   │ │   with open(input_file) as text: │
└───┘ └───┘
┌───┐ ┌───┐
│   │ │   │
└───┘ └───┘
                                                  ┌───┐
                                                  │   out_file = open ("Json-Output.json", "r")│
                                                  └───┘

Section:
Explanation:

QUESTION 282
DRAG DROP

```
{
Cisco-IOS-XE-native GigabitEthernet": {
"name": "1",
"vrf": {
"forwarding": "MANAGEMENT"
},
"ip": {
"address": {
"primary": {
"address": "10.0.0.151",
"mask". "255.255 255.0"
}
}
},
"mop": {
"enabled": false
},
"Cisco-IOS-XE-ethernet:negotiation": {
"auto": true
}
}
}
```

Refer to the exhibit. Drag and drop the snippets into the RESTCONF request to form the request that returns this response.
Not all options are used.

Select and Place:

Answer Area

URL - http://10.10.10.10/restconf/api/running/native/ [   ]
HTTP Verb- [   ]
Body- N/A
Headers- [   ] -application/vnd.yang.data+json
Authentication-privileged level 15 credentials

| POST | Cisco-IOS-XE | GET |
| Accept | interface/GigabitEthernet/1/ | PUT |

Correct Answer:

Answer Area

```
URL - http://10.10.10.10/restconf/api/running/native/ [interface/GigabitEthernet/1/]
HTTP Verb- [ GET ]
Body- N/A
Headers- [ Accept ] -application/vnd.yang.data+json
Authentication-privileged level 15 credentials
```

[POST]	[Cisco-IOS-XE]	[ ]
[ ]	[ ]	[PUT]

Section:

Explanation:

QUESTION 283

DRAG DROP

Drag and drop the snippets onto the blanks within the code to construct a script that adds a prefix list to a route map and sets the local preference. Not all options are used.

Select and Place:

Answer Area

```
{
    "@message-id": "101",
    "edit-config": {
        "target": {
            [          ]
        },
        "config": {
            "native": {
                "ip":
                    "prefix-list": {
                        "prefixes": {
                            [          ]
                            "permit": {
                                "prefix-only-list": {
                                    "prefix": "192.168.1.0/24"
                                }
                            }
                        }
                    }
                }
            }
            "route-map": {
                "name": "Routes",
                "route-map-without-order-seq": {
                    [          ] "10",
                    "set": {
                        "local-preference": "200"
                    },
                    [          ] {
                        "ip": {
                            "address": {
                                "prefix-list": "100"
                            }
                        }
                    }
                }
            }
        }
    }
}
```

"running": null
"seq_no":
"config": null
"permit":
"match":
"name":"100",

Correct Answer:

Answer Area

```
{
    "@message-id": "101",
    "edit-config": {
        "target": {
            "name":"100",
        },
        "config": {
            "native": {
                "ip": {
                    "prefix-list": {
                        "prefixes": {
                            "seq_no":
                                "permit": {
                                    "prefix-only-list": {
                                        "prefix": "192.168.1.0/24"
                                    }
                                }
                        }
                    }
                }
            }
            "route-map": {
                "name": "Routes",
                "route-map-without-order-seq": {
                    "permit":    "10",
                    "set": {
                        "local-preference": "200"
                    },
                    "match":
                        "ip": {
                            "address": {
                                "prefix-list": "100"
                            }
                        }
                }
            }
        }
    }
}
```
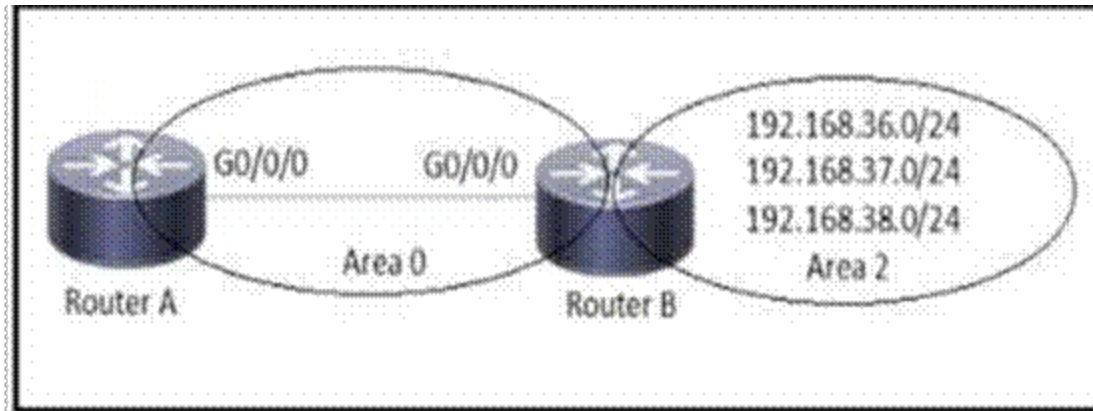
"running": null

"config": null

Section:
Explanation:

QUESTION 284
Refer to the exhibit.

Refer to the exhibit. Which configuration is required to summarize the Area 2 networks that are advertised to Area 0?

```
RouterB(config)# router ospf 1
RouterB(config-router)# network 192.168.38.0 255.255.252.0

RouterB(config)# router ospf 1
RouterB(config-router)# network 192.168.38.0 255.255.255.0

RouterB(config)# router ospf 1
RouterB(config-router)# area 2 range 192.168.36.0 255.255.252.0

RouterB(config)# router ospf 1
RouterB(config-router)# area 2 range 192.168.36.0 255.255.255.0
```

Refer to the exhibit. Which configuration is required to summarize the Area 2 networks that are advertised to Area 0?

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

Correct Answer: C
Section:

QUESTION 285
A customer has a wireless network deployed within a multi-tenant building. The network provides client access, location-based services, and is monitored using Cisco DNA Center. The security department wants to locate and track malicious devices based on threat signatures. Which feature is required for this solution?

A. Cisco aWIPS policies on the WLC
B. Cisco aWIPS policies on Cisco DNA Center
C. malicious rogue rules on the WLC
D. malicious rogue rules on Cisco DNA Center

Correct Answer: B
Section:

QUESTION 286
DRAG DROP

Drag and drop the snippets onto the blanks within the code to construct a script that shows all logging that occurred on the appliance from Sunday until 9:00 p.m. Thursday. Not all options are used.

Select and Place:

Answer Area

```
event manager applet Logging
  event timer cron name Logging cron-entry " [        ] "
  action 2.0 cli command "enable"
  action [        ]   cli command "show logging | [        ] "
```

| 1.0 | 0 21 ** 0-4 | redirect ftp://cisco:cisco@192.168.1.1 |
| 3.0 | 0 21 ** 1-5 | ftp://cisco:cisco@192.168.1.1 |

Correct Answer:

Answer Area

```
event manager applet Logging
  event timer cron name Logging cron-entry " ftp://cisco:cisco@192.168.1.1 "
  action 2.0 cli command "enable"
  action [ 3.0 ]   cli command "show logging | [ 0 21 ** 1-5 ] "
```

| 1.0 | 0 21 ** 0-4 | redirect ftp://cisco:cisco@192.168.1.1 |

Section:
Explanation:

QUESTION 287
DRAG DROP
Drag and drop the characteristics from the left onto the infrastructure deployment models on the right.

Select and Place:

Answer Area

Capacity easily scales up or down.	On-Premises
Infrastructure requires large and regular investments.	
It enables users to access resources from anywhere.	Cloud
It requires capacity planning for power and cooling.	

Correct Answer:

Answer Area

On-Premises
Infrastructure requires large and regular investments.
It requires capacity planning for power and cooling.

Cloud
Capacity easily scales up or down.
It enables users to access resources from anywhere.

Section:
Explanation:

QUESTION 288
DRAG DROP
Drag and drop the characteristics from the left onto the orchestration tools that they describe on the right.

Select and Place:

Answer Area

declarative

communicates using knife tool

communicates through SSH

procedural

Chef

SaltStack

Correct Answer:

Answer Area

Chef
declarative
procedural

SaltStack
communicates using knife tool
communicates through SSH

QUESTION 289

What Is the difference between the MAC address table and TCAM?

A. The MAC address table supports partial matches. TCAM requires an exact match.

B. The MAC address table is contained in TCAM ACL and QoS information is stored in CAM.

C. Router prefix lookups happen in TCAM. MAC address table lookups happen In CAM.

D. TCAM is used to make L2 forwarding decisions. CAM is used to build routing tables

Correct Answer: C
Section:
Explanation:
"TCAM is most useful for building tables for searching on longest matches such as IP routing tables organized by IP prefixes. The TCAM table stores ACL, QoS and other information generally associated with upper-layer processing. As a result of using TCAM, applying ACLs does not affect theperformance of the switch." https://community.cisco.com/t5/networking-documents/cam-content- addressable-memory-vs-tcam-ternary-content/ta-p/3107938

QUESTION 290

Which two features does the Cisco SD-Access architecture add to a traditional campus network?
(Choose two.)

A. software-defined segmentation

B. private VLANs

C. SD-WAN

D. modular QoS

E. identity services

Correct Answer: A, E
Section:
Explanation:
https://www.aspiretransforms.com/2018/06/06/insider-guide-cisco-sd-access/

QUESTION 291

Refer to the exhibit.

```
Device> enable
Device# configure terminal
Device(config)# monitor session 1 type erspan-source
Device(config-mon-erspan-src)# description source1
Device(config-mon-erspan-src)# source interface GigabitEthernet1/0/1 rx
Device(config-mon-erspan-src)# source interface GigabitEthernet1/0/4 - 8 tx
Device(config-mon-erspan-src)# source interface GigabitEthernet1/0/3
Device(config-mon-erspan-src)# destination
Device(config-mon-erspan-src-dst)# erspan-id 100
Device(config-mon-erspan-src-dst)# origin ip address 10.1.0.1
Device(config-mon-erspan-src-dst)# ip prec 5
Device(config-mon-erspan-src-dst)# ip ttl 32
Device(config-mon-erspan-src-dst)# mtu 1700
Device(config-mon-erspan-src-dst)# origin ip address 10.10.0.1
Device(config-mon-erspan-src-dst)# vrf 1
Device(config-mon-erspan-src-dst)# no shutdown
Device(config-mon-erspan-src-dst)# end
```

An engineer must configure an ERSPAN session with the remote end of the session 10.10.0.1. Which commands must be added to complete the configuration?

A.

```
Device(config)# monitor session 1 type erspan-source
Device(config-mon-erspan-src)# destination
Device(config-mon-erspan-src-dst)#no origin ip address 10.10.0.1
Device(config-mon-erspan-src-dst)#ip address 10.10.0.1
```

B.

```
Device(config)# monitor session 1 type erspan-source
Device(config-mon-erspan-src)# destination
Device(config-mon-erspan-src-dst)#no origin ip address 10.10.0.1
Device(config-mon-erspan-src-dst)#ip destination address 10.10.0.1
```

C.

```
Device(config)# monitor session 1 type erspan-destination
Device(config-mon-erspan-src)# source
Device(config-mon-erspan-src-dst)#origin ip address 10.1.0.1
```

D.

```
Device(config)# monitor session 1 type erspan-source
Device(config-mon-erspan-src)# destination
Device(config-mon-erspan-src-dst)#no vrf 1
```

Correct Answer: A
Section:
Explanation:
Example: Configuring an ERSPAN Source Session on a WAN Interface
The following example shows how to configure more than one WAN interface in a single ERSPAN source monitor session. Multiple interfaces have been separated by a commas. monitor session 100 type erspan-source source interface
Serial 0/1/0:0, Serial 0/1/0:6 Example: Configuring an ERSPAN Destination Session The following example shows how to configure an ERSPAN destination session: monitor session 2 type erspan-destination destination interface
GigabitEthernet1/3/2 destination interface GigabitEthernet2/2/0 source erspan-id 100 ip address 10.10.0.1

QUESTION 292
An engineer must configure a new loopback Interface on a router and advertise the interface as a fa4 in OSPF. Which command set accomplishes this task?

A.

```
R2(config)# interface Loopback0
R2(config-if)# ip address 172.22.2.1 255.255.255.0
R2(config-if)# ip ospf 100 area 0
```

B.

```
R2(config)# interface Loopback0
R2(config-if)# ip address 172.22.2.1 255.255.255.0
R2(config-if)# ip ospf network point-to-point
R2(config-if)# ip ospf 100 area 0
```

C.

```
R2(config)# interface Loopback0
R2(config-if)# ip address 172.22.2.1 255.255.255.0
R2(config-if)# ip ospf network point-to-multipoint
R2(config-if)# router ospf 100
R2(config-router)# network 172.22.2.0 0.0.0.255 area 0
```

D.

```
R2(config)# interface Loopback0
R2(config-if)# ip address 172.22.2.1 255.255.255.0
R2(config-if)# ip ospf network broadcast
R2(config-if)# ip ospf 100 area 0
```

Correct Answer: A
Section:
Explanation:
Step 1. Create the loopback interface using the interface loopback number global configuration command.
Step 2. Add a description. Although optional, it is a necessary component for documenting a network.
Step 3. Configure the IP address.
For example, the following commands configure a loopback interface of the R1 router shown in (shown earlier in the chapter):
R1# configure terminal
R1(config)# interface loopback 0
R1(config-if)# ip address 10.0.0.1 255.255.255.0
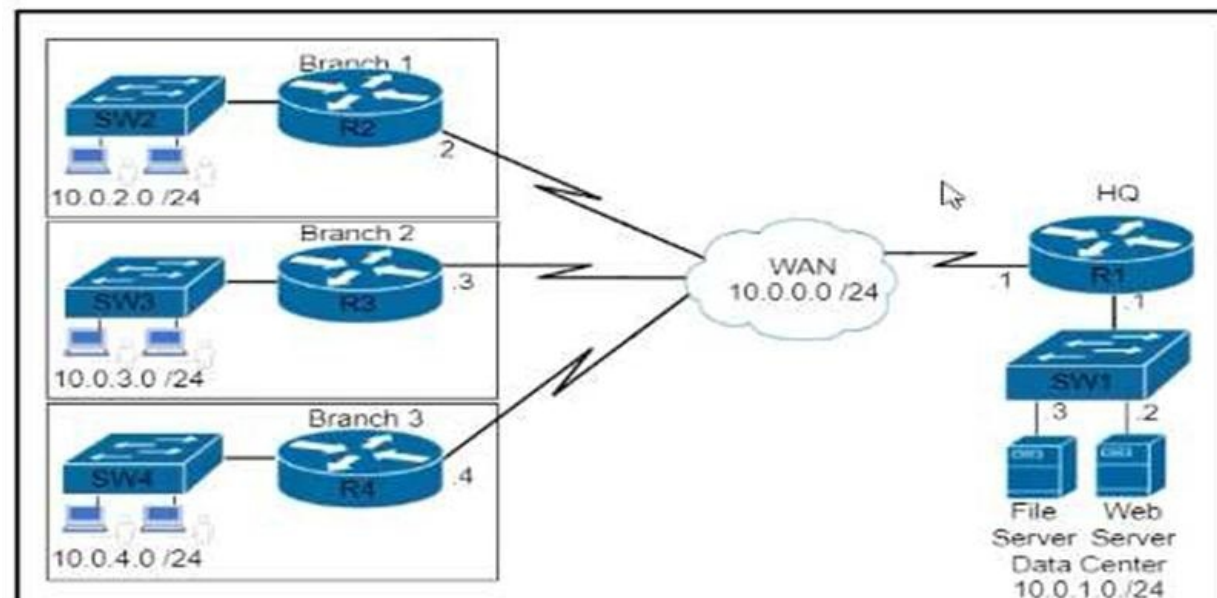R1(config-if)# exit
R1(config)#

QUESTION 293
Refer to the exhibit.

Which command set is needed to configure and verify router R3 to measure the response time from router R3 to the file server located in the data center?

A.

```
ip sla 6
 icmp-echo 10.0.1.3 source-ip 10.0.0.3
 frequency 300
ip sla schedule 6 life forever start-time now
```

```
show ip sla statistics 6
```

B.

```
ip sla 6
 icmp-echo 172.29.139.134 source-ip 172.29.139.132
 frequency 300
ip sla schedule 6  start-time now
```

C.

```
ip sla 6
 icmp-echo 172.29.139.134 source-ip 172.29.139.132
 frequency 300
ip sla schedule 6  start-time now
```

```
show ip protocol
```

D.

```
ip sla 6
 icmp-echo 10.0.1.3 source-ip 10.0.0.3
 frequency 300
ip sla schedule 6 life forever start-time now
```

```
show ip protocol
```
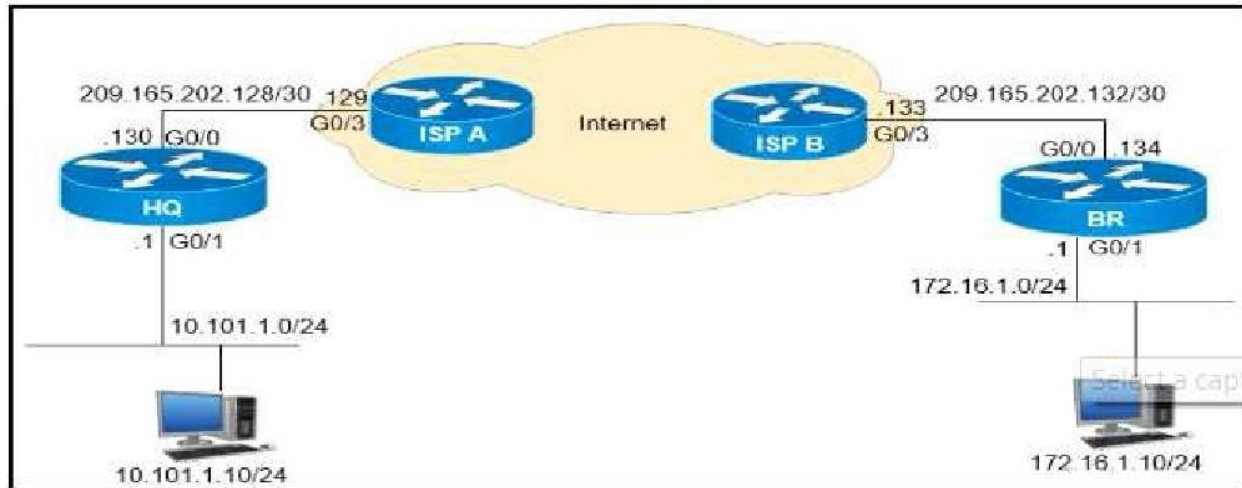
Correct Answer: A
Section:
Explanation:
https://www.cisco.com/c/en/us/support/docs/smb/switches/cisco-550x-series-stackable-managedswitches/smb5797-configure-ip-sla-tracking-for-ipv4-static-routes-on-an-sg550.html

QUESTION 294
Refer to the exhibit.

Which configuration must be applied to the HQ router to set up a GRE tunnel between the HQ and BR routers?

A.

```
interface Tunnel1
 ip address 10.111.111.1  255.255.255.0
 tunnel source GigabitEthernet0/0
 tunnel destination 209.165.202.134
```

B.

```
interface Tunnel1
 ip address 10.111.111.1  255.255.255.0
 tunnel source GigabitEthernet0/0
 tunnel destination 209.165.202.133
```

C.

```
interface Tunnel1
 ip address 10.111.111.1  255.255.255.0
 tunnel source GigabitEthernet0/0
 tunnel destination 209.165.202.129
```
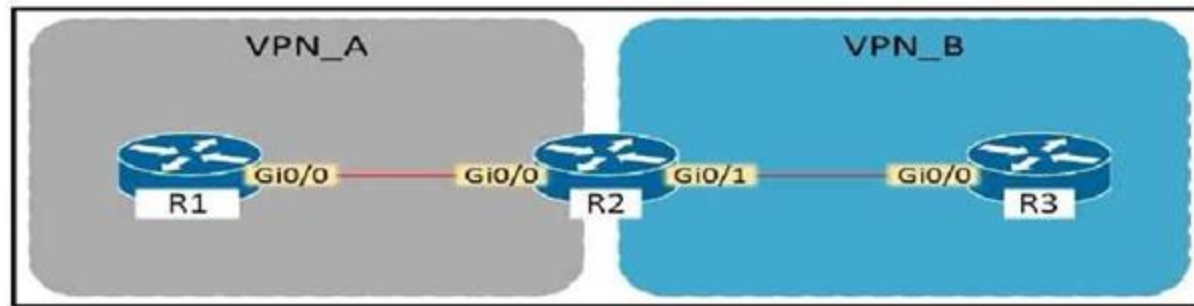
D.

```
interface Tunnel1
 ip address 209.165.202.130 255.255.255.252
 tunnel source GigabitEthernet0/0
 tunnel destination 209.165.202.129
```

Correct Answer: A
Section:

QUESTION 295
Refer to The exhibit.

Assuming that R1 is a CE router, which VRF is assigned to Gi0/0 on R1?

A. VRF VFN_A
B. VRF VPN_B
C. management VRF
D. default VRF

Correct Answer: D
Section:

QUESTION 296
How do EIGRP metrics compare to OSPF metrics?

A. EIGRP metrics are based on a combination of bandwidth and packet loss, and OSPF metrics are based on interface bandwidth.
B. EIGRP uses the Dijkstra algorithm, and OSPF uses The DUAL algorithm
C. The EIGRP administrative distance for external routes is 170. and the OSPF administrative distance for external routes is undefined
D. The EIGRP administrative distance for external routes is 170. and the OSPF administrative distance for external routes is 110

Correct Answer: A
Section:

QUESTION 297
DRAG DROP
Drag and drop the characteristics from the left onto the infrastructure deployment models they describe on the right.

Select and Place:

Correct Answer:

Answer Area

On-Premises

highly agile

infrastructure requires large and regular
investments

Cloud

easy to scale the capacity up and down

highly customizable

Section:
Explanation:

QUESTION 298
DRAG DROP
Drag and drop the characteristics from the left onto the routing protocols they describe on the right.

Select and Place:

Answer Area

cost-based metric

Dual Diffusing Update algorithm

metrics are bandwidth, delay, reliability,
load, and MTU

Dijiktra algorithm

EIGRP

OSPF

Correct Answer:

Answer Area

	EIGRP
	Dual Diffusing Update algorithm
	metrics are bandwidth, delay, reliability, load, and MTU
	OSPF
	Dijiktra algorithm
	cost-based metric

Section:

Explanation:

QUESTION 299

Refer to the exhibit.

```
SW1#show cdp neighbors | include Local|0/1
Device ID    Local Intrfce   Holdtme   Capability   Platform   Port ID
SW2          Fas 0/1         131       R S          WS-C3750-  Fas 0/1

SW1#show interfaces FastEthernet0/1 switchport
Name: Fa0/1
Switchport: Enabled
Administrative Mode: dynamic desirable
Operational Mode: static access
Administrative Trunking Encapsulation: dot1q
Operational Trunking Encapsulation: native
Negotiation of Trunking: On

SW2#show cdp neighbors | include Local|0/1
Device ID    Local Intrfce   Holdtme   Capability   Platform   Port ID
SW1          Fas 0/1         142       R S          WS-C3750-  Fas 0/1

SW2#show interfaces FastEthernet0/1 switchport
Name: Fa0/1
Switchport: Enabled
Administrative Mode: dynamic desirable
Operational Mode: static access
Administrative Trunking Encapsulation: isl
Operational Trunking Encapsulation: native
Negotiation of Trunking: On
```

An engineer configures a trunk between SW1 and SW2 but tagged packets are not passing. Which action fixes the issue?

A. Configure SW1 with dynamic auto mode on interface FastEthernet0/1.

B. Configure the native VLAN to be the same VLAN on both switches on interface FastEthernet0/1.

C. Configure SW2 with encapsulation dot1q on interface FastEthernet0/1.

D. Configure FastEthernet0/1 on both switches for static trunking.

Correct Answer: C

Section:

QUESTION 300
In a Cisco SD-Access wireless environment, which device is responsible for hosting the anycast gateway?

A. fusion router
B. control plane node
C. fabric border node
D. fabric edge node

Correct Answer: D
Section:

QUESTION 301
How does Protocol Independent Multicast function?

A. In sparse mode, it establishes neighbor adjacencies and sends hello messages at 5-second intervals.
B. It uses the multicast routing table to perform the multicast forwarding function.
C. It uses unicast routing information to perform the multicast forwarding function.
D. It uses broadcast routing information to perform the multicast forwarding function.

Correct Answer: C
Section:

QUESTION 302
Where in Cisco DNA Center is documentation of each API call, organized by its functional area?

A. Developer Toolkit
B. platform management
C. platform bundles
D. Runtime Dashboard

Correct Answer: A
Section:

QUESTION 303
Refer to the exhibit.

Add a new network

Network name

ACME-Internal

Security type

WPA2-Enterprise AES

EAP method

Protected EAP (PEAP)

Authentication method

Secured password (EAP-MSCHAP v2)

☑ Connect automatically

☐ Connect even if this network is not broadcasting

Save   Cancel

A company has an internal wireless network with a hidden SSID and RADIUS-based client authentication for increased security. An employee attempts to manually add the company network to a laptop, but the laptop does not attempt to connect to the network. The regulatory domains of the access points and the laptop are identical. Which action resolves this issue?

A. Ensure that the "Connect even if this network is not broadcasting" option is selected.
B. Limit the enabled wireless channels on the laptop to the maximum channel range that is supported by the access points.
C. Change the security type to WPA2-Personal AES.
D. Use the empty string as the hidden SSID network name.

Correct Answer: A
Section:

QUESTION 304
Using the EIRP formula, what parameter is subtracted to determine the EIRP value?

A. transmitter power
B. antenna cable loss
C. antenna again
D. signal-to-noise ratio

Correct Answer: B
Section:

QUESTION 305
Which IP SLA operation requires the IP SLA responder to be configured on the remote end?

A. TCP connect
B. ICMP echo

C. ICMP jitter

D. UDP jitter

Correct Answer: D
Section:

QUESTION 306
Which two results occur if Cisco DNA Center loses connectivity to devices in the SD-Access fabric? (Choose two)

A. Cisco DNA Center is unable to collect monitoring data in Assurance.

B. All devices reload after detecting loss of connection to Cisco DNA Center.

C. Already connected users are unaffected, but new users cannot connect

D. Users lose connectivity.

E. User connectivity is unaffected.

Correct Answer: A, E
Section:

QUESTION 307
An engineer must protect the password for the VTY lines against over-the-shoulder attacks. Which configuration should be applied?

A. service password-encryption

B. username netadmin secret 9 9vFpMf8elb4RVV8$seZ/bDA

C. username netadmin secret 7$1$42J36k33008Pyh4QzwXyZ4

D. line vty 0 15 p3ssword XD822j

Correct Answer: A
Section:
Explanation:
cisco(config)#username test privilege 15 password test777 cisco(config)#do s running-config | include user username test privilege 15 password 0 test777cisco(config)#service password-encryption cisco(config)#do s running-config | include user username test privilege 15 password 7 044F0E151B761B19 cisco(config)# cisco(config)#do wr Building configuration... [OK]cisco(config)#

QUESTION 308
Reter to the exhibit.

```
import requests
import json

url='https://switchIP.foo.com/ins'
switchuser='username'
switchpassword='password123'

myheaders={'content-type':'application/json-rpc'}
payload=[
  {
    "jsonrpc": "2.0",
    "method": "cli",
    "params": {
      "cmd": "show clock",
      "version": 1
    },
    "id": 1
  }
]
response = requests.post(url,data=json.dumps(payload), headers=myheaders,auth=(switchuser,switchpassword), verify=False).json()
```

Refer to the exhibit. Which python code parses the response and prints "18:32:21.474 UTC sun Mar 10 2019?

A. print(response['resut'][0||'simple_time']}

B. print(response[result']['body']['simple_time']}

C. print(response['body']['simple_time']}

D. print(response[jresult']['body']['simple_time']}

Correct Answer: B
Section:

QUESTION 309
A network engineer must configure a switch to allow remote access for all feasible protocols. Only a password must be requested for device authentication and all idle sessions must be terminated in 30 minutes. Which configuration must be applied?

```
line vty 0 15
  password cisco
  transport input all
  exec-timeout 0 30
```

```
line console 0
  password cisco
  exec-timeout 30 0
```

```
line vty 0 15
  password cisco
  transport input telnet ssh
  exec-timeout 30 0
```

```
username cisco privilege 15 cisco
line vty 0 15
  transport input telnet ssh
  login local
  exec-timeout 0 30
```

A. Option A

B. Option B

C. Option C

D. Option D

Correct Answer: C
Section:

QUESTION 310
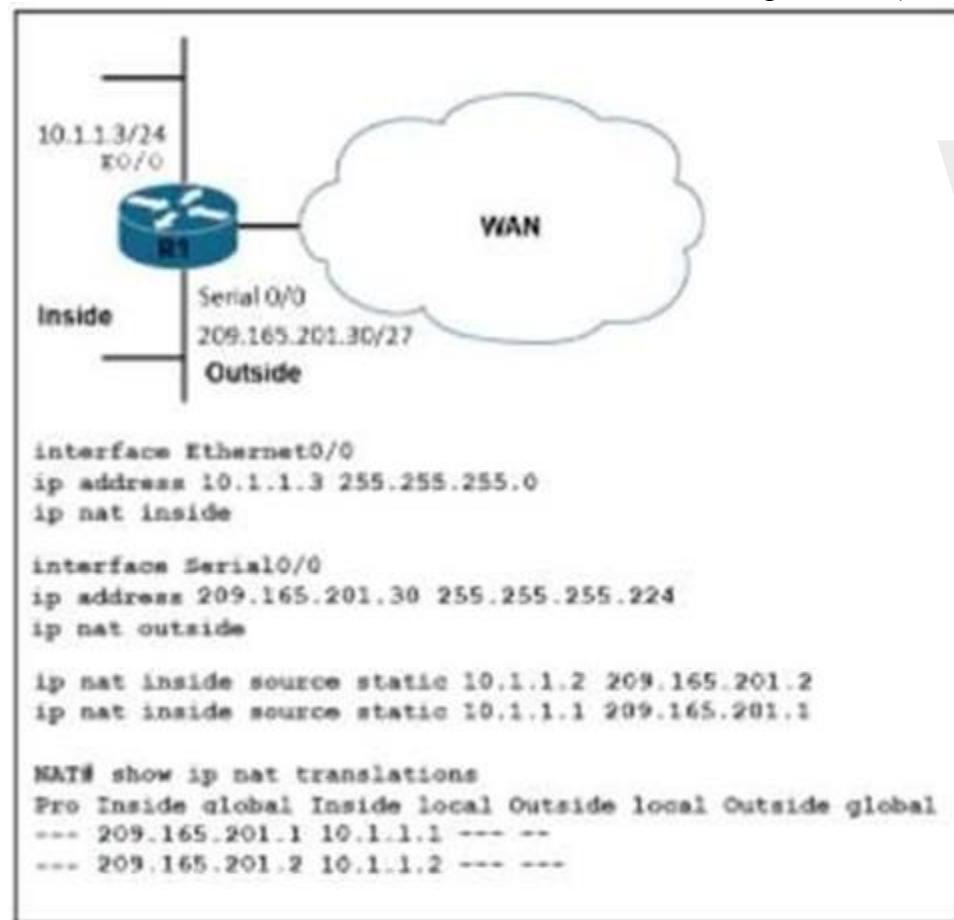When does a Cisco StackWise primary switch lose its role?

A. when a stack member fails

B. when the stack primary is reset

C. when a switch with a higher priority is added to the stack

D. when the priority value of a stack member is changed to a higher value

Correct Answer: C
Section:

QUESTION 311
Refer to the exhibit. What are two results of the NAT configuration? (Choose two.)

```
10.1.1.3/24
E0/0

         R1

Inside        Serial 0/0
              209.165.201.30/27
       Outside

                                 WAN


interface Ethernet0/0
ip address 10.1.1.3 255.255.255.0
ip nat inside

interface Serial0/0
ip address 209.165.201.30 255.255.255.224
ip nat outside

ip nat inside source static 10.1.1.2 209.165.201.2
ip nat inside source static 10.1.1.1 209.165.201.1

NAT# show ip nat translations
Pro Inside global Inside local Outside local Outside global
--- 209.165.201.1 10.1.1.1 --- --
--- 209.165.201.2 10.1.1.2 --- ---
```

A. Packets with a destination of 200.1.1.1 are translated to 10.1.1.1 or .2. respectively.

B. A packet that is sent to 200.1.1.1 from 10.1.1.1 is translated to 209.165.201.1 on R1.

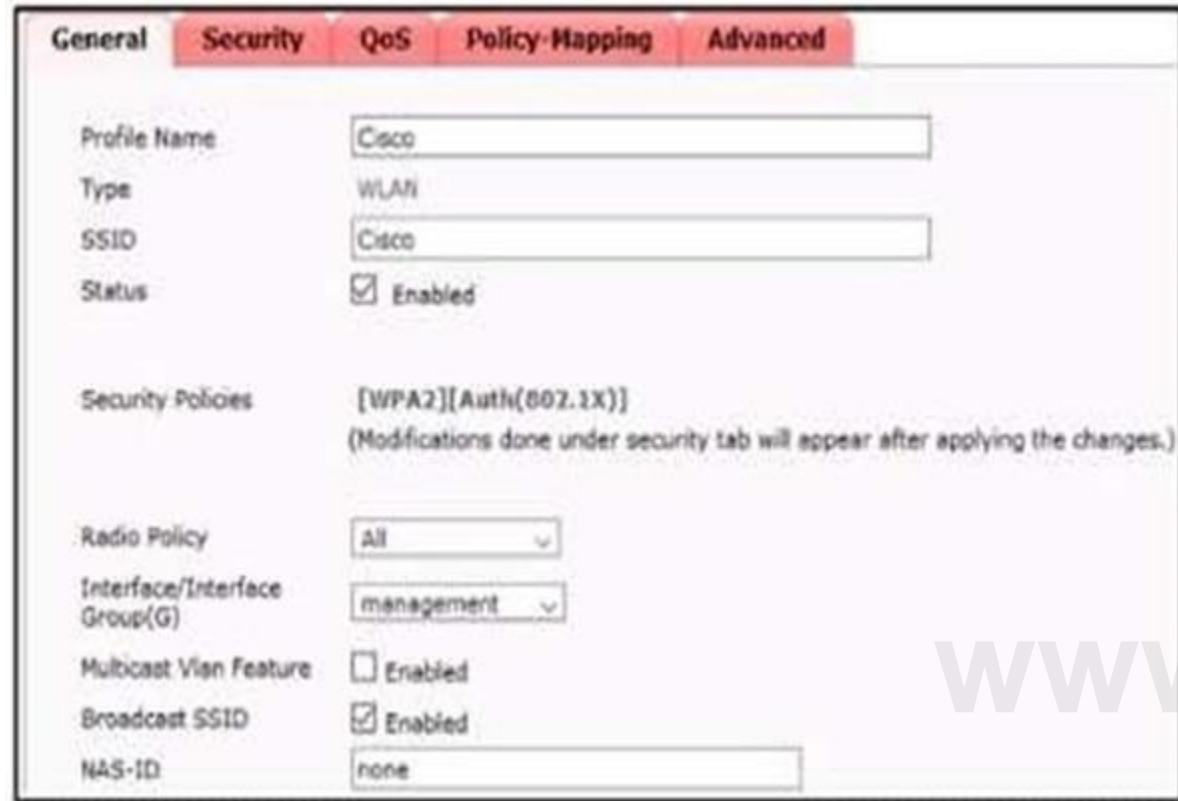C. R1 looks at the destination IP address of packets entering S0/0 and destined for inside hosts.

D. R1 processes packets entering E0/0 and S0/0 by examining the source IP address.

E. R1 is performing NAT for inside addresses and outside address.

Correct Answer: B, C
Section:

QUESTION 312
Refer to the exhibit.

Clients report that they cannot connect to this SSID using the provided PSK.
Which action will resolve this issue?

A. Apply the correct interface to this WLAN.

B. Apply the changes this SSID.

C. Select the PSK under authentication key management.

D. Define the correct Radio Policy.

Correct Answer: A
Section:

QUESTION 313
Refer to the exhibit.

Refer to the exhibit. Which command set completes the ERSPAN session configuration?

○ monitor session 12 type erspan-destination
    destination interface GigabitEthernet4
    source
      erspan-id 12
      ip address 10.10.10.10

○ monitor session 11 type erspan-destination
    destination interface GigabitEthernet4
    source
      erspan-id 12
      ip address 10.100.10.10

○ monitor session 11 type erspan-destination
    destination interface GigabitEthernet4
    source
      erspan-id 11
      ip address 10.10.10.10

○ monitor session 12 type erspan-destination
    destination interface GigabitEthernet4
    source
      erspan-id 11
      ip address 10.10.10.10

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

Correct Answer: A
Section:

QUESTION 314
Witch two actions provide controlled Layer 2 network connectivity between virtual machines running on the same hypervisor? (Choose two.)

A. Use a single trunk link to an external Layer2 switch.
B. Use a virtual switch provided by the hypervisor.
C. Use a virtual switch running as a separate virtual machine.
D. Use a single routed link to an external router on stick.
E. Use VXLAN fabric after installing VXLAN tunneling drivers on the virtual machines.

Correct Answer: B, C
Section:
Explanation:
Source 1: https://www.cisco.com/c/dam/en/us/products/collateral/switches/nexus-1000v-switchvmware-vsphere/at_a_glance_c45-532467.pdfSource 2: https://www.cisco.com/c/en/us/td/docs/unified_computing/ucs/sw/vm_fex/vmware/gui/config_guide/2-1/b_GUI_VMware_VM-FEX_UCSM_Configuration_Guide_2_1/b_GUI_VMware_VMFEX_UCSM_Configuration_Guide_2_1_chapter_0110.pdf

QUESTION 315

Which free application has the ability to make REST calls against Cisco DNA Center?

A. API Explorer

B. REST Explorer

C. Postman

D. Mozilla

Correct Answer: C
Section:

QUESTION 316
Refer to the exhibit.

```
Router A
Interface GigabitEthernet 1/0
ip address 192.168.0.1 255.255.255.0
vrrp priority 120

Router B
Interface GigabitEthernet 1/0
ip address 192.168.0.200 255.255.255.0
vrrp priority 100

Router C
Interface GigabitEthernet 1/0
ip address 192.168.0.3 255.255.255.0
vrrp priority 130

Router D
Interface GigabitEthernet 1/0
ip address 192.168.0.4 255.255.255.0
vrrp priority 90
```

Refer to the exhibit. Which router is elected as the VRRP primary virtual router?

A. Router B

B. Router D

C. Router C

D. Router A

Correct Answer: C
Section:

QUESTION 317
Which activity requires access to Cisco DNA Center CLI?

A. provisioning a wireless LAN controller

B. creating a configuration template

C. upgrading the Cisco DNA Center software

D. graceful shutdown of Cisco DNA Center

Correct Answer: D
Section:

QUESTION 318
Which NTP mode must be activated when using a Cisco router as an NTP authoritative server?

A. primary
B. server
C. broadcast client
D. peer

Correct Answer: D
Section:

QUESTION 319
Refer to the exhibit.

Refer to the exhibit. An engineer must configure an ERSPAN tunnel that mirrors traffic from linux1 on Switch1 to Linux2 on Switch2. Which command must be added to the destination configuration to enable the ERSPAN tunnel?

A. (config-mon-erspan-dst-src)# origin ip address 172.16.10.10
B. (config-mon-erspan-dst-src)# erspan-id 172.16.10.10
C. (config-mon-erspan-dst-src)# no shut
D. (config-mon-erspan-dst-src)# erspan-id 110

Correct Answer: D
Section:

QUESTION 320
An engineer is configuring RADIUS-Based Authentication with EAP. MS-CHAPv2 is configured on a client device. Which outer method protocol must be configured on the ISE to support this authentication type?

A. EAP-TLS
B. EAP-FAST
C. LDAP
D. PEAP

Correct Answer: D
Section:

QUESTION 321

What are two characteristics of Cisco SD-Access elements? (Choose two.)

A. The border node is required for communication between fabric and nonfabric devices.
B. Traffic within the fabric always goes through the control plane node.
C. Fabric endpoints are connected directly to the border node.
D. The control plane node has the full RLOC-to-EID mapping database.
E. The border node has the full RLOC-to-EID mapping database.

Correct Answer: A, D
Section:

QUESTION 322

An engineer is connected to a Cisco router through a Telnet session. Which command must be issued to view the logging messages from the current session as soon as they are generated by the router?

A. logging buffer
B. service timestamps log uptime
C. logging host
D. terminal monitor

Correct Answer: D
Section:

QUESTION 323
SIMULATION
BGP connectivity exists between Headquarters and both remote sites; however, Remote Site 1 cannot communicate with Remote Site 2. Configure BGP according to the topology to goals:

A. Configure R1 and R3 under the BGP process to provide reachability between Remote Site 1 and Remote Site 2. No configuration changes are permitted on R2.
B. Ensure that the /32 networks at Remote Site 1 and Remote Site 2 can ping each other.

Guidelines Topology | V | Tasks

AS123   AS456   AS123

1.1.1.1/32   2.2.2.2/32   3.3.3.3/32

E0/0   10.0.0.0/24   E0/0   E0/1   192.168.1.0/24   E0/1
   1   1   2   2

R1   R2   R3
Remote Site 1   Headquarters   Remote Site 2
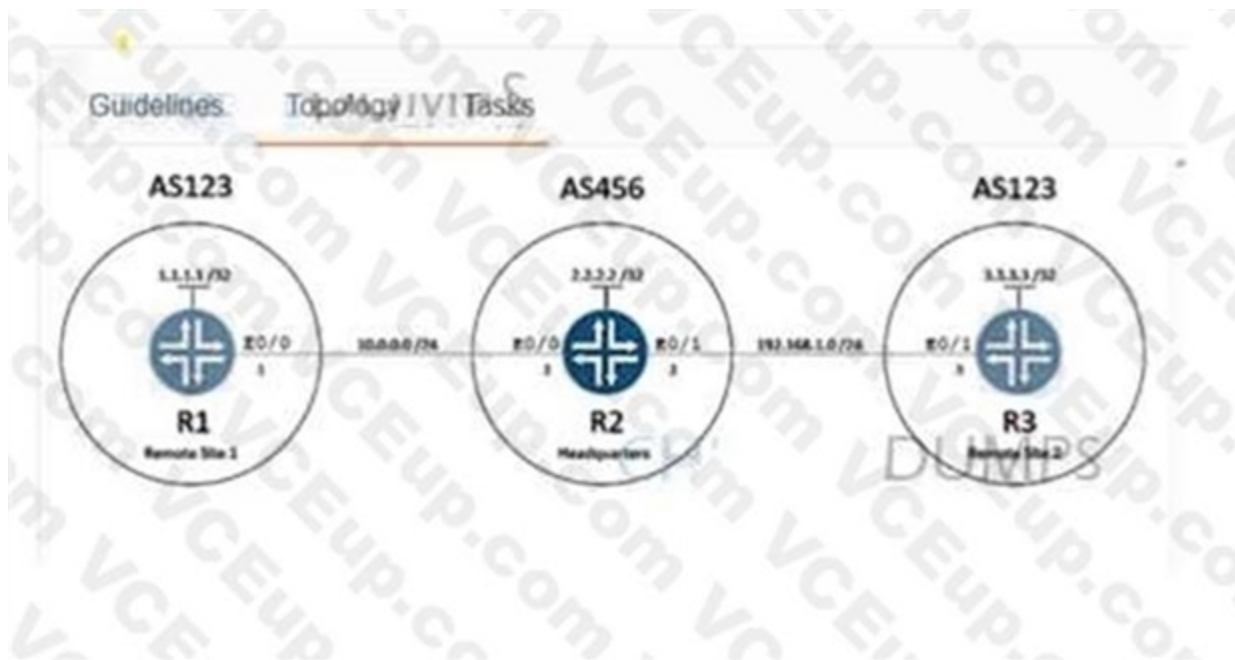
Guidelines

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

R1

```
R1#en
R1#sh run
Building configuration...

Current configuration : 1237 bytes
!
version 15.8
service timestamps debug datetime msec
service timestamps log datetime msec
no service password-encryption
!
hostname R1
!
boot-start-marker
boot-end-marker
!
!
!
no aaa new-model
!
!
!
clock timezone PST -8 0
mmi polling-interval 60
no mmi auto-configure
no mmi pvc
 --More--
```

```
!
interface Loopback0
 ip address 1.1.1.1 255.255.255.255
!
interface Ethernet0/0
 ip address 10.0.0.1 255.255.255.0
 duplex auto
!
interface Ethernet0/1
 no ip address
 shutdown
```

R1   R3

```
 ip address 1.1.1.1 255.255.255.255
!
interface Ethernet0/0
 ip address 10.0.0.1 255.255.255.0
 duplex auto
!
interface Ethernet0/1
 no ip address
 shutdown
 duplex auto
!
interface Ethernet0/2
 no ip address
 shutdown
 duplex auto
!
interface Ethernet0/3
 no ip address
 shutdown
 duplex auto
!
router bgp 123
 bgp router-id 1.1.1.1
 bgp log-neighbor-changes
 neighbor 10.0.0.2 remote-as 456
 !
 address-family ipv4
  network 1.1.1.1 mask 255.255.255.255
  redistribute connected
  neighbor 10.0.0.2 activate
 exit-address-family
!
```

```
R1#ping 10.0.0.1
Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 10.0.0.1, timeout is 2 seconds:
!!!!!
Success rate is 100 percent (5/5), round-trip min/avg/max = 4/4/5 m
s
R1#ping 10.0.0.2
Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 10.0.0.2, timeout is 2 seconds:
!!!!!
Success rate is 100 percent (5/5), round-trip min/avg/max = 1/1/3 m
s
R1#
```

```
R1#show ip bgp summ
BGP router identifier 1.1.1.1, local AS number 123
BGP table version is 4, main routing table version 4
3 network entries using 432 bytes of memory
3 path entries using 252 bytes of memory
3/3 BGP path/bestpath attribute entries using 480 bytes of memory
1 BGP AS-PATH entries using 24 bytes of memory
0 BGP route-map cache entries using 0 bytes of memory
0 BGP filter-list cache entries using 0 bytes of memory
BGP using 1188 total bytes of memory
BGP activity 3/0 prefixes, 3/0 paths, scan interval 60 secs

Neighbor        V           AS MsgRcvd MsgSent   TblVer  InQ OutQ U
p/Down  State/PfxRcd
10.0.0.2        4          456      37      34               0 0
0:26:35         1
R1#
```

```
R1#show ip bgp
BGP table version is 4, local router ID is 1.1.1.1
Status codes: s suppressed, d damped, h history, * valid, > best, i
 - internal,
              r RIB-failure, S Stale, m multipath, b backup-path, f
 RT-Filter,
              x best-external, a additional-path, c RIB-compressed,

              t secondary path,
Origin codes: i - IGP, e - EGP, ? - incomplete
RPKI validation codes: V valid, I invalid, N Not found

     Network          Next Hop            Metric LocPrf Weight Path
 *>  1.1.1.1/32       0.0.0.0                  0         32768 i
 *>  2.2.2.2/32       10.0.0.2                 0             0 456
 i
 *>  10.0.0.0/24      0.0.0.0                  0         32768 ?
R1#
```

R3

```
R3>en
R3#sh run
Building configuration...

Current configuration : 1246 bytes
!
version 15.8
service timestamps debug datetime msec
service timestamps log datetime msec
no service password-encryption
!
hostname R3
!
boot-start-marker
boot-end-marker
!
!
!
no aaa new-model
!
!
!
clock timezone PST -8 0
mmi polling-interval 60
no mmi auto-configure
no mmi pvc
 --More--
```

```
interface Loopback0
ip address 3.3.3.3 255.255.255.255

interface Ethernet0/0
no ip address
shutdown
duplex auto

interface Ethernet0/1
ip address 192.168.1.3 255.255.255.0
```

R1 R3

```
ip address 3.3.3.3 255.255.255.255
!
interface Ethernet0/0
 no ip address
 shutdown
 duplex auto
!
interface Ethernet0/1
 ip address 192.168.1.3 255.255.255.0
 duplex auto
!
interface Ethernet0/2
 no ip address
 shutdown
 duplex auto
!
interface Ethernet0/3
 no ip address
 shutdown
 duplex auto
!
router bgp 123
 bgp router-id 3.3.3.3
 bgp log-neighbor-changes
 neighbor 192.168.1.2 remote-as 456
 !
 address-family ipv4
  network 3.3.3.3 mask 255.255.255.255
  redistribute connected
  neighbor 192.168.1.2 activate
 exit-address-family
!
```

R1 R3

```
 bgp router-id 3.3.3.3
 bgp log-neighbor-changes
 neighbor 192.168.1.2 remote-as 456
 !
 address-family ipv4
  network 3.3.3.3 mask 255.255.255.255
  redistribute connected
  neighbor 192.168.1.2 activate
 exit-address-family
!
ip forward-protocol nd
!
!
no ip http server
no ip http secure-server
!
ipv6 ioam timestamp
!
!
!
control-plane
!
!
!
!
!
!
!
!
line con 0
 logging synchronous
line aux 0
```

```
R3#
R3#show ip bgp nei
R3#show ip bgp neighbors
BGP neighbor is 192.168.1.2,  remote AS 456, external link
  BGP version 4, remote router ID 2.2.2.2
  BGP state = Established, up for 00:25:30
  Last read 00:00:48, last write 00:00:33, hold time is 180, keep
ive interval is 60 seconds
  Neighbor sessions:
    1 active, is not multisession capable (disabled)
  Neighbor capabilities:
    Route refresh: advertised and received(new)
    Four-octets ASN Capability: advertised and received
    Address family IPv4 Unicast: advertised and received
    Enhanced Refresh Capability: advertised and received
    Multisession Capability:
    Stateful switchover support enabled: NO for session 1
  Message statistics:
    InQ depth is 0
    OutQ depth is 0

                    Sent       Rcvd
  Opens:              1          1
  Notifications:      0          0
  Updates:            3          6
  Keepalives:        29         28
 --More--
```

```
R3#
R3#show ip bgp summ
BGP router identifier 3.3.3.3, local AS number 123
BGP table version is 4, main routing table version 4
3 network entries using 432 bytes of memory
3 path entries using 252 bytes of memory
3/3 BGP path/bestpath attribute entries using 480 bytes of memory
1 BGP AS-PATH entries using 24 bytes of memory
0 BGP route-map cache entries using 0 bytes of memory
0 BGP filter-list cache entries using 0 bytes of memory
BGP using 1188 total bytes of memory
BGP activity 3/0 prefixes, 3/0 paths, scan interval 60 secs

Neighbor        V           AS MsgRcvd MsgSent   TblVer  InQ OutQ U
p/Down  State/PfxRcd
192.168.1.2     4          456    36     34         0    0   0 0
0:25:57         1
R3#
```

```
R3#show ip bgp
BGP table version is 4, local router ID is 3.3.3.3
Status codes: s suppressed, d damped, h history, * valid, > best, i
 - internal,
            r RIB-failure, S Stale, m multipath, b backup-path, f
 RT-Filter,
            x best-external, a additional-path, c RIB-compressed,
            t secondary path,
Origin codes: i - IGP, e - EGP, ? - incomplete
RPKI validation codes: V valid, I invalid, N Not found

    Network         Next Hop         Metric LocPrf Weight Path
 *>  2.2.2.2/32      192.168.1.2          0             0 456
 i
 *>  3.3.3.3/32      0.0.0.0                       32768 ?
 *>  192.168.1.0     0.0.0.0              0       32768 ?
R3#
```

C. See the solution below in

Correct Answer: A
Section:
Explanation:
- Solution:
On R1:
R1(config)#router bgp 123
R1(config-router)#address-family ipv4
R1(config-router-af)#neighbor 10.0.0.2 allowas-in
On R3:
R3(config)#router bgp 123
R3(config-router)# address-family ipv4
R3(config-router-af)#neighbor 192.168.1.2 allowas-in
VERIFICATION:
R3#sh ip route bgp
Gateway of last resort is not set
1.0.0.0/32 is subnetted, 1 subnets
B 1.1.1.1 [20/0] via 192.168.1.2, 00:01:17
2.0.0.0/32 is subnetted, 1 subnets
B 2.2.2.2 [20/0] via 192.168.1.2, 00:05:06
10.0.0.0/24 is subnetted, 1 subnets
B 10.0.0.0 [20/0] via 192.168.1.2, 00:01:17
Test Ping from R3 to R1:
R3#ping 1.1.1.1
Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 1.1.1.1, timeout is 2 seconds:
!!!!!
R3#ping 1.1.1.1 source lo0
Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 1.1.1.1, timeout is 2 seconds:
Packet sent with a source address of 3.3.3.3
!!!!!
Success rate is 100 percent (5/5), round-trip min/avg/max = 1/1/1 ms

QUESTION 324

Refer to the exhibit.

```
R1#show ip bgp summary
BGP router identifier 1.1.1.1, local AS number 65001
BGP table version is 1, main routing table version 1

Neighbor       V      AS MsgRcvd MsgSent  TblVer  InQ OutQ Up/Down  State/PfxRcd
192.168.12.2   4    65002    0    0      1   0   0 00:00:15 Idle
R1#show ip interface brief | include 192.168.12
FastEthernet0/0          192.168.12.1   YES NVRAM  up            up

R2#show ip bgp summary
BGP router identifier 2.2.2.2, local AS number 65002
BGP table version is 1, main routing table version 1

Neighbor       V      AS MsgRcvd MsgSent  TblVer  InQ OutQ Up/Down  State/PfxRcd
192.168.12.1   4    65001    0    0      1   0   0 00:01:00 Idle (Admin)
R2#show ip interface brief | include 192.168.12
Ethernet0/0          192.168.12.2   YES NVRAM  up            up
R2#ping 192.168.12.1
Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 192.168.12.1, timeout is 2 seconds:
!!!!!
Success rate is 100 percent (5/5), round-trip min/avg/max = 1/1/1 ms
```

Refer to the exhibit. R1 and R2 are directly connected, but the BGP session does not establish. Which action must be taken to build an eBGP session?

A. Configure ip route 1.1.1.1 0.0.0.0 192.168.12.1 on R2.

B. Configure neighbor 192.168.12.1 activate under R2 BGP process.

C. Configure neighbor 2.2.2.2 remote-as 65002 under R1 BGP process.

D. Configure no neighbor 192.168.12.1 shutdown under R2 BGP process.

Correct Answer: D
Section:

QUESTION 325

If AP power level is increased from 25 mW to 100 mW. what is the power difference in dBm?

A. 6 dBm

B. 14 dBm

C. 17 dBm

D. 20 dBm

Correct Answer: D
Section:

QUESTION 326

Which signal strength and noise values meet the minimum SNR for voice networks?

A. signal strength -67 dBm, noise 91 dBm

B. signal strength -69 dBm, noise 94 dBm

C. signal strength -68 dBm, noise 89 dBm

D. signal strength -66 dBm, noise 90 dBm

Correct Answer: A

QUESTION 327

Which two methods are used by an AP that is typing to discover a wireless LAN controller? (Choose two.)

A. Cisco Discovery Protocol neighbour

B. broadcasting on the local subnet

C. DNS lookup cisco-DNA-PRIMARY.localdomain

D. DHCP Option 43

E. querying other APs

Correct Answer: B, D
Section:

QUESTION 328

SIMULATION

Configure HSRP between DISTRO-SW1 and DISTRO-SW2 on VLAN 100 for hosts connected to ACCESSSW1 to achieve these goals:

A. Configure group number 1 using the virtual IP address of 192.168.1.1/24.

B. Configure DISTRO-SW1 as the active router using a priority value of 110 and DISTRO-SW2 as the standby router.

C. Ensure that DISTRO-SW2 will take over the active role when DISTRO-SW1 goes down, and when DISTRO-SW1 recovers, it automatically resumes the active role.
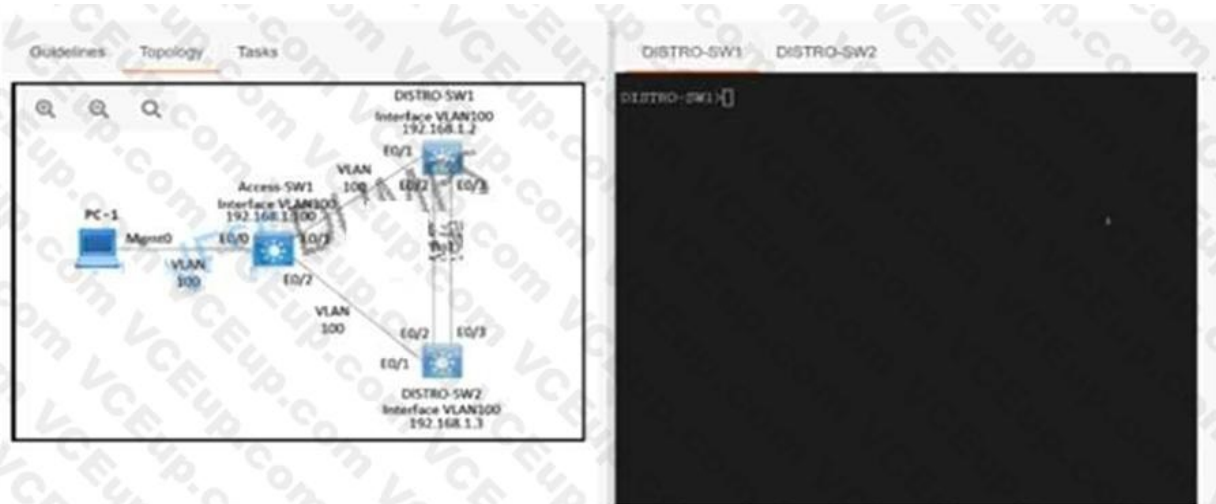
```
DISTRO-SW1#sh run
DISTRO-SW1#sh running-config
Building configuration...

Current configuration : 1661 bytes
!
! Last configuration change at 02:15:58 PST Fri May 20 2022
!
version 15.2
service timestamps debug datetime msec
service timestamps log datetime msec
no service password-encryption
service compress-config
!
hostname DISTRO-SW1
!
boot-start-marker
boot-end-marker
!
!
!
no aaa new-model
clock timezone PST -8 0
!
```

```
hostname DISTRO-SW1
!
boot-start-marker
boot-end-marker
!
!
!
no aaa new-model
clock timezone PST -8 0
!
!
!
!
!
!
ip dhcp excluded-address 192.168.1.1
ip dhcp excluded-address 192.168.1.2
ip dhcp excluded-address 192.168.1.3
ip dhcp excluded-address 192.168.1.100
!
ip dhcp pool CISCO123
 network 192.168.1.0 255.255.255.0
 default-router 192.168.1.1
!
!
ip cef
no ip igmp snooping
no ipv6 cef
!
!
```

```
!
interface Port-channel1
 switchport trunk encapsulation dot1q
 switchport trunk native vlan 100
 switchport mode trunk
!
interface Ethernet0/0
!
interface Ethernet0/1
 switchport trunk encapsulation dot1q
 switchport trunk native vlan 100
 switchport mode trunk
!
interface Ethernet0/2
 switchport trunk encapsulation dot1q
 switchport trunk native vlan 100
 switchport mode trunk
 channel-group 1 mode active
!
interface Ethernet0/3
 switchport trunk encapsulation dot1q
 switchport trunk native vlan 100
 switchport mode trunk
 channel-group 1 mode active
!
interface Vlan100
 ip address 192.168.1.2 255.255.255.0
!
```

```
interface Vlan100
 ip address 192.168.1.2 255.255.255.0
!
ip forward-protocol nd
!
no ip http server
no ip http secure-server
!
ip ssh server algorithm encryption aes128-ctr aes192-ctr aes2
56-ctr
ip ssh client algorithm encryption aes128-ctr aes192-ctr aes2
56-ctr
!
!
!
!
!
control-plane
!
!
line con 0
 logging synchronous
line aux 0
line vty 0 4
 login
```

DISTRO-SW2

```
no ipv6 cef
!CHINESEDUMPS
        通过测试
!
spanning-tree mode pvst
spanning-tree extend system-id
!
!
!
!
!
!
!
!
!
!
!
!
!
!
interface Port-channel1
 switchport trunk encapsulation dot1q
 switchport trunk native vlan 100
 switchport mode trunk
!
interface Ethernet0/0
!
interface Ethernet0/1
 switchport trunk encapsulation dot1q
 switchport trunk native vlan 100
 switchport mode trunk
!
```

```
!
interface Ethernet0/1
 switchport trunk encapsulation dot1q
 switchport trunk native vlan 100
 switchport mode trunk
!
interface Ethernet0/2
 switchport trunk encapsulation dot1q
 switchport trunk native vlan 100
 switchport mode trunk
 channel-group 1 mode passive
!
interface Ethernet0/3
 switchport trunk encapsulation dot1q
 switchport trunk native vlan 100
 switchport mode trunk
 channel-group 1 mode passive
!
interface Vlan100
 ip address 192.168.1.3 255.255.255.0
!
ip forward-protocol nd
!
no ip http server
no ip http secure-server
!
ip ssh server algorithm encryption aes128-ctr aes192-ctr aes2
56-ctr
ip ssh client algorithm encryption aes128-ctr aes192-ctr aes2
56-ctr
!
```

D. See the solution below in

Correct Answer: A
Section:
Explanation:
DISTRO-SW1
Explanation:
DISTRO-SW1
Sw1
int vlan 100
standby 1 ip 192.168.1.1
standby 1 priority 110
standby 1 preempt
copy run start
DISTRO-SW2
SW2
int vlan 100
standby 1 ip 192.168.1.1
standby 1 preempt
copy run start
OR

MINOR CHANGE IN ABOVE HSRP SCENERIO

Implement GLBP between DISTRO-SW1 and DISTRO-SW2 on VLAN100 for hosts connected to ACCESS-SW1 to achieve these goals:

1. Configure group 1 using the virtual IP address of 192.168.1.254.
2. Configure DISTRO-SW1 as the AVG using a priority value of 110.
3. If DISTRO-SW1 suffers a failure and recovers, ensure that it automatically resumes the AVG role after waiting for a minimum of 15 seconds.

Check the IP address 1.254 check the minimum 15 seconds solution get change.

DISTRO-SW1

Sw1 int vlan 100
glbp 1 ip 192.168.1.254
glbp 1 priority 110
glbp 1 timers 5 15
glbp 1 preempt
copy run start
DISTRO-SW2
SW2
int vlan 100
glbp 1 ip 192.168.1.254
glbp 1 timers 5 15
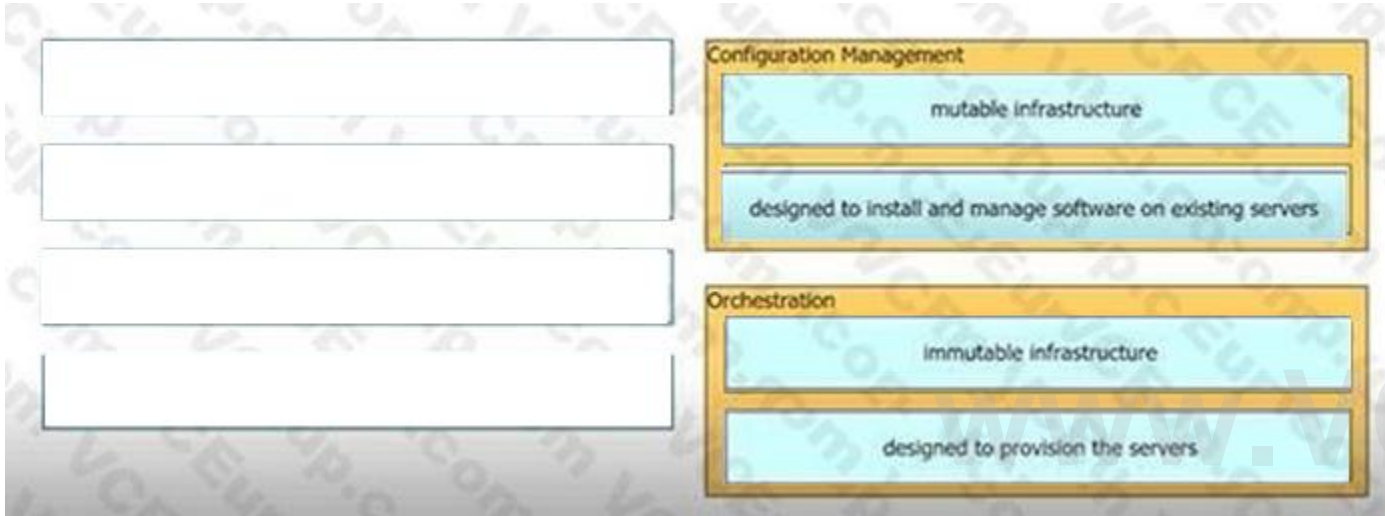glbp 1 preempt

copy run start

QUESTION 329
DRAG DROP
Drag and drop the characteristics from the left onto the orchestration tool classifications on the right.

Select and Place:

Correct Answer:

Section:
Explanation:

QUESTION 330
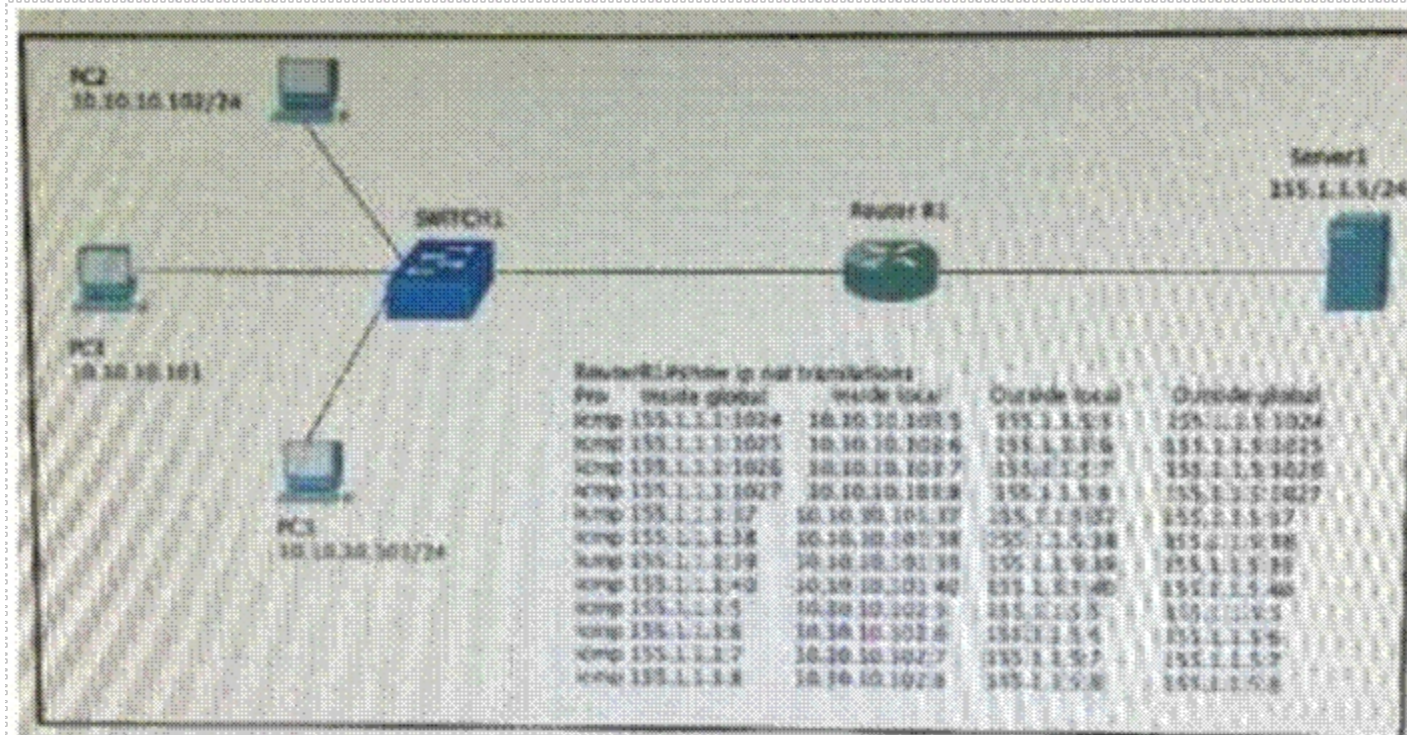Which two security features are available when implementing NTP? (Choose two.)

A. symmetric server passwords
B. dock offset authentication
C. broadcast association mode
D. encrypted authentication mechanism
E. access list-based restriction scheme

Correct Answer: D, E
Section:

QUESTION 331
Refer to the exhibit.

Hosts PC1 PC2 and PC3 must access resources on Serve 1. An engineer configures NAT on Router R1 1e enable the communication and enters the show command to verify operation Which IP address is used by the hosts when they communicate globally to Server1?

A. 155.1.1.1

B. random addresses in the 155.1.1.0/24 range

C. their own address in the 10.10.10.0/24 rance

D. 155.1.1.5

Correct Answer: A
Section:

QUESTION 332
what is a benefit of using a Type 2 hypervisor instead of a Type 1 hypervisor?

A. better application performance

B. Improved security because the underlying OS is eliminated

C. Improved density and scalability

D. ability to operate on hardware that is running other OSs

Correct Answer: D
Section:

QUESTION 333
Refer to the exhibit.

```
enable secret cisco

aaa new-model

tacacs server ise-1
address 10.1.1.1
key cisco123!

tacacs server ISE-2
address 10.2.2.1
key cisco123!

aaa group server tacacs+ ISE-Servers
server name ise-1
server name ise-2
```

A network engineer must configure the router to use the ISE-Servers group for authentication. If both ISE servers are unavailable, the local username database must be used. If no usernames are defined in the configuration, then the enable password must be the last resort to log in. Which configuration must be applied to achieve this result?

A. aaa authentication login default group ISE-Servers local enable
B. aaa authentication login default group enable local ISE-Servers
C. aaa authorization exec default group ISE-Servers local enable
D. aaa authentication login error-enable aaa authentication login default group enable local ISE-Servers

Correct Answer: A
Section:

QUESTION 334
DRAG DROP
Drag and drop the descriptions of the VSS technology from the left to the right. Not all options are used.

Select and Place:

Answer Area

| combines exactly two devices |
| supported on Cisco 3750 and 3850 devices |
| supported on Cisco 4500 and 6500 series |
| supports devices that are geographically separated |
| supports up to nine devices |
| uses proprietary cabling |

VSS

| |
| |
| |

Correct Answer:

Answer Area

| |
| supported on Cisco 3750 and 3850 devices |
| |
| |
| supports up to nine devices |
| uses proprietary cabling |

VSS

| combines exactly two devices |
| supports devices that are geographically separated |
| supported on Cisco 4500 and 6500 series |

Section:
Explanation:

QUESTION 335
DRAG DROP
Drag and drop the characteristics from the left onto the correct routing protocol types on the right.

Select and Place:

Answer Area

OSPF

supports unequal path load balancing

link state routing protocol

distance vector routing protocol

EIGRP

metric based on delay and reliability by default

makes it easy to segment the network logically

constructs three tables as part of its operation: neighbor table, topology table, and routing table

Correct Answer:

Answer Area

OSPF

link state routing protocol

makes it easy to segment the network logically

constructs three tables as part of its operation: neighbor table, topology table, and routing table

EIGRP

supports unequal path load balancing

distance vector routing protocol

metric based on delay and reliability by default

Section:
Explanation:

QUESTION 336
DRAG DROP
Drag and drop the descriptions from the left onto the routing protocol they describe on the right.

Select and Place:

Answer Area

summaries can be created anywhere in the IGP topology	OSPF
uses areas to segment a network	
DUAL algorithm	EIGRP
summaries can be created in specific parts of the IGP topology	

Correct Answer:

Answer Area

	OSPF
	uses areas to segment a network
	summaries can be created in specific parts of the IGP topology
	EIGRP
	summaries can be created anywhere in the IGP topology
	DUAL algorithm

Section:
Explanation:

QUESTION 337
DRAG DROP
Drag and drop the characteristics from the left onto the routing protocols they describe on the right.

Select and Place:

maintains alternative loop-free backup path if available

Link State Protocol

selects routes using the DUAL algorithm

supports only equal multipath load balancing

Advanced Distance Vector Protocol

quickly computes new path upon link failure

OSPF

EIGRP

Correct Answer:

OSPF

Link State Protocol
supports only equal multipath load balancing
quickly computes new path upon link failure

EIGRP

maintains alternative loop-free backup path if available
selects routes using the DUAL algorithm
Advanced Distance Vector Protocol

Section:
Explanation:

QUESTION 338
DRAG DROP
Drag and drop the descriptions from the left onto the routing protocol they describe on the right.

Select and Place:

Answer Area

	OSPF
supports unequal cost path load balancing	
link state	
advanced distance vector	EIGRP
supports only equal cost path load balancing	

Correct Answer:

Answer Area

	OSPF
	link state
	supports unequal cost path load balancing
	EIGRP
	advanced distance vector
	supports only equal cost path load balancing

Section:
Explanation:

QUESTION 339
DRAG DROP
Drag and drop the DHCP messages that are exchanged between a client and an AP into the order they are exchanged on the right.

Select and Place:

DHCP request		Step 1
DHCP offer		Step 2
DHCP discover		Step 3
DHCP ack		Step 4

Correct Answer:

	DHCP discover
	DHCP offer
	DHCP request
	DHCP ack

Section:
Explanation:

QUESTION 340
An engineer is configuring RADIUS-Based Authentication with EAP MS-CHAPv2 is configured on a client device.
Which outer method protocol must be configured on the ISE to support this authentication type?

A. EAP-TLS
B. PEAP
C. LDAP
D. EAP-FAST

Correct Answer: D
Section:

QUESTION 341
Refer to the exhibit.

```
vlan 222
 remote-span
!
vlan 223
 remote-span
!
monitor session 1 source interface FastEthernet0/1 tx
monitor session 1 source interface FastEthernet0/2 rx
monitor session 1 source interface port-channel 5
monitor session 1 destination remote vlan 222
!
```

These commands have been added to the configuration of a switch Which command flags an error if it is added to this configuration?
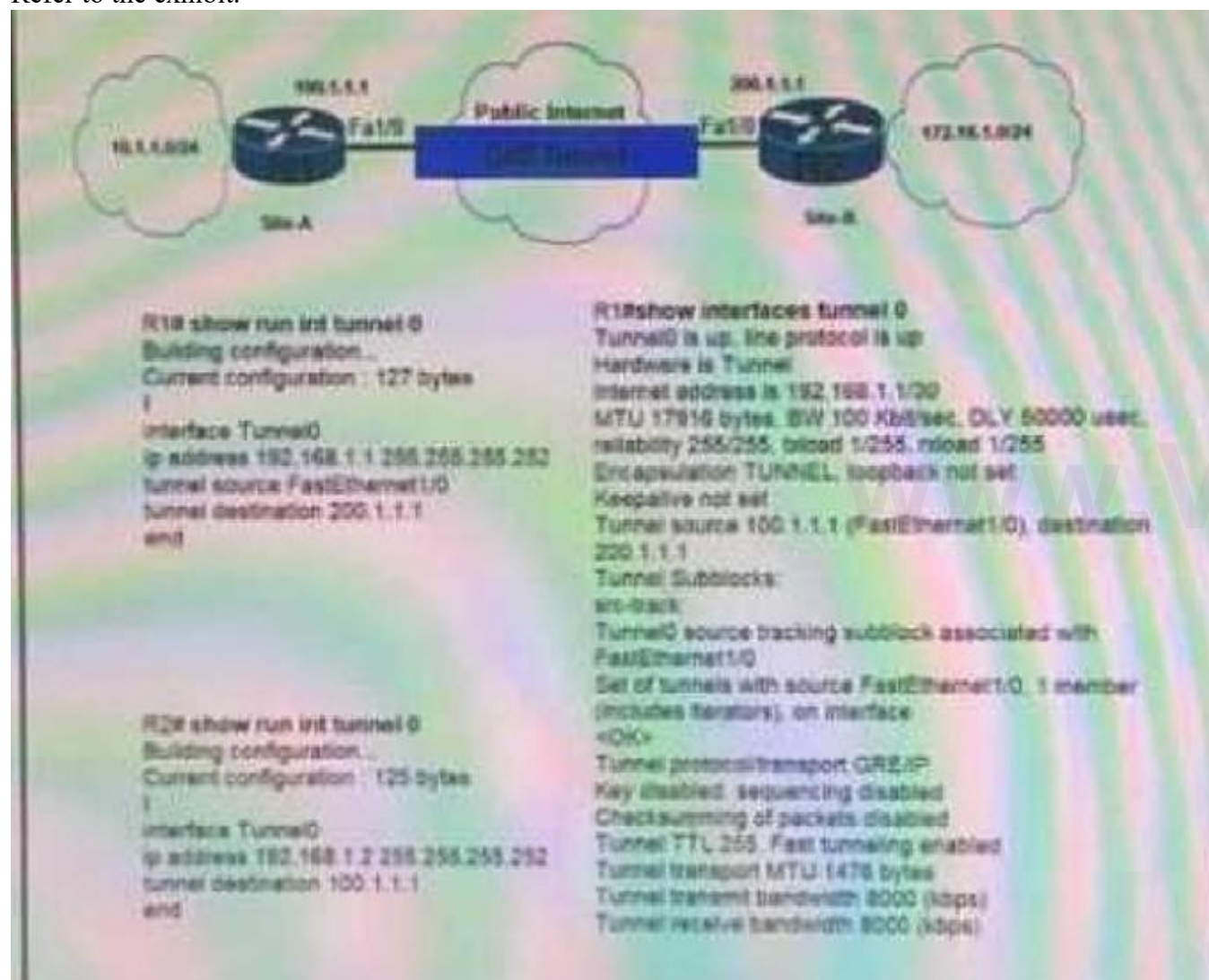
A. monitor session 1 source interface port-channel 6

B. monitor session 1 source vlan 10

C. monitor session 1 source interface FatEtheret0/1 x

D. monitor session 1 source interface port-channel 7,port-channel8

Correct Answer: B
Section:

QUESTION 342
Refer to the exhibit.

Which GRE tunnel configuration command is missing on R2?

A. tunnel source 192.181.2

B. tunnel source 172.16.1.0

C. tunnel source 200.1.1.1

D. tunnel destination 200.1.1.1

Correct Answer: C
Section:

Which technology reduces the implementation of STP and leverages both unicast and multicast?

A. VSS
B. VXLAN
C. VPC
D. VLAN

Correct Answer: A
Section:

QUESTION 344
Which component handles the orchestration plane of the Cisco SD-WAN?

A. vBond
B. cSmart
C. vManage
D. WAN Edge

Correct Answer: A
Section:

QUESTION 345
What is the rose of the vSmart controller in a Cisco SD-WN environment?

A. it performs authentication and authorization
B. it manages the control plane.
C. it is the centralized network management system
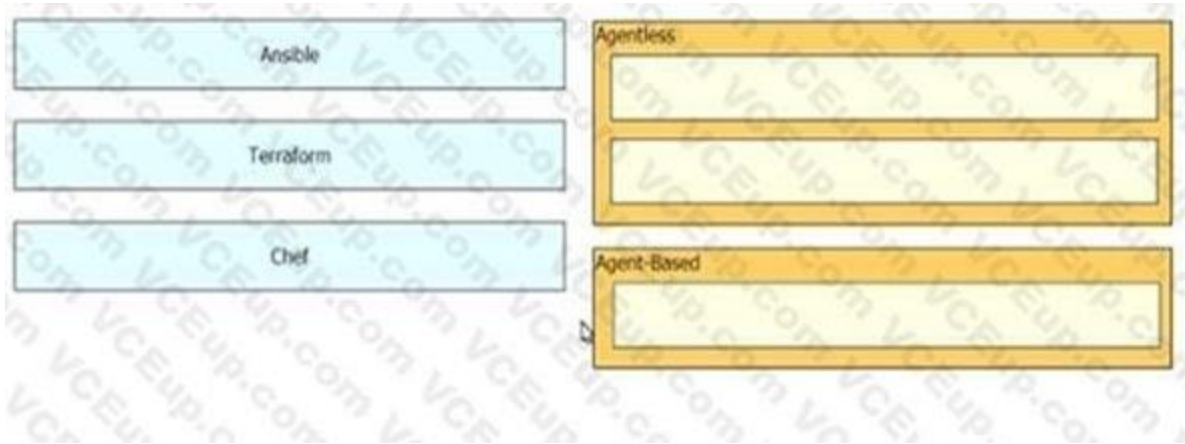D. it manages the data plane

Correct Answer: B
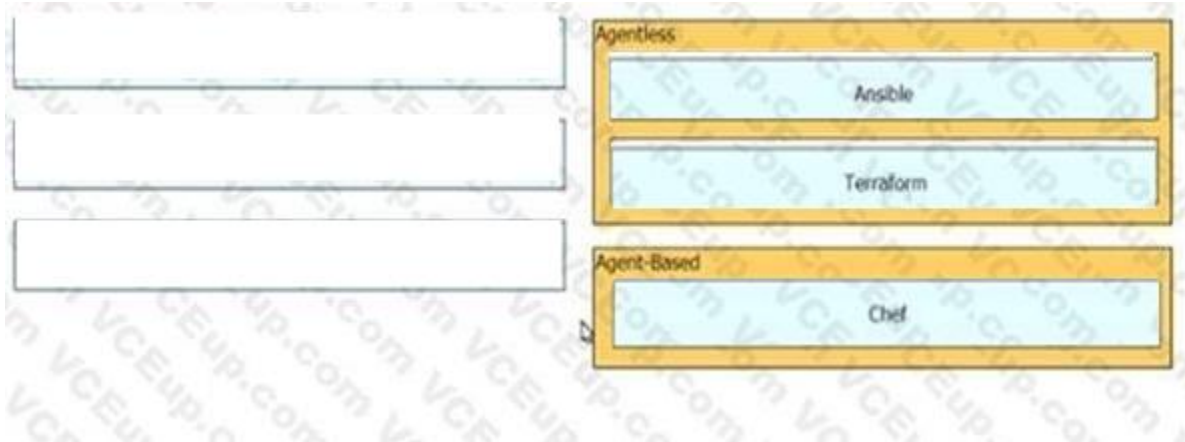**Section:**

QUESTION 346
DRAG DROP
Drag and drop the tools from the left onto the agent types on the right.

Select and Place:

Ansible	Agentless
Terraform	
Chef	Agent-Based

Correct Answer:

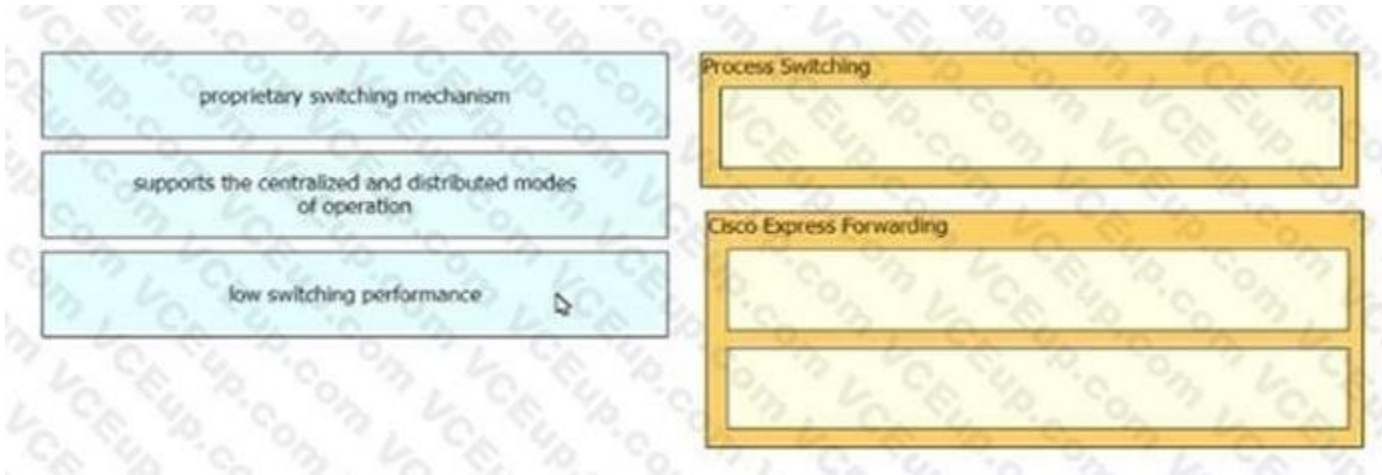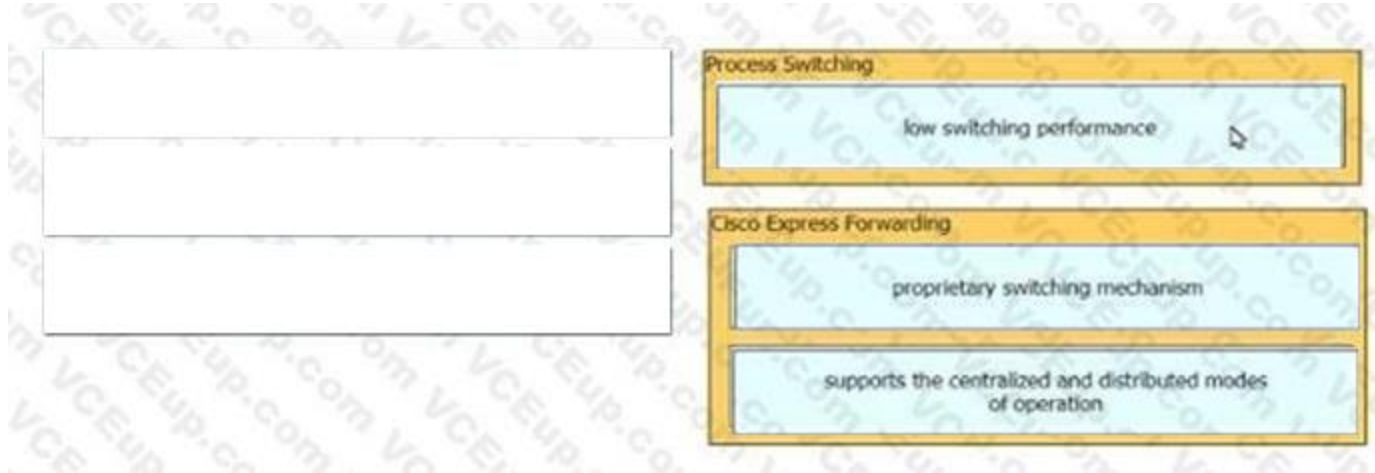|	Agentless
	Ansible
	Terraform
	Agent-Based
	Chef

Section:
Explanation:

QUESTION 347
DRAG DROP
Drag and drop the characteristics from the left onto the switching architectures on the right.

Select and Place:

proprietary switching mechanism	Process Switching
supports the centralized and distributed modes of operation	
low switching performance	Cisco Express Forwarding

Correct Answer:

Section:
Explanation:

QUESTION 348
How do the RIB and the FIB differ?

A. FIB contains routes learned through a dynamic routing protocol, and the RIB contains routes that are static or directly connected.
B. RIB contains the interface for a destination, and the FIB contains the next hop information.
C. FIB is derived from the control plane, and the RIB is derived from the data plane.
D. RIB is derived from the control plane, and the FIB is derived from the RIB.

Correct Answer: D
Section:

QUESTION 349
In a Cisco StackWise Virtual environment, which planes are virtually combined in the common logical switch?

A. control, and forwarding
B. management and data
C. control and management
D. control and data

Correct Answer: C
Section:

QUESTION 350
How do stratum levels relate to the distance from a time source?

A. Stratum 1 devices are connected directly to an authoritative time source.
B. Stratum 15 devices are connected directly to an authoritative time source
C. Stratum 0 devices are connected directly to an authoritative time source.
D. Stratum 15 devices are an authoritative time source.

Correct Answer: C
Section:

QUESTION 351
Refer to the exhibit.
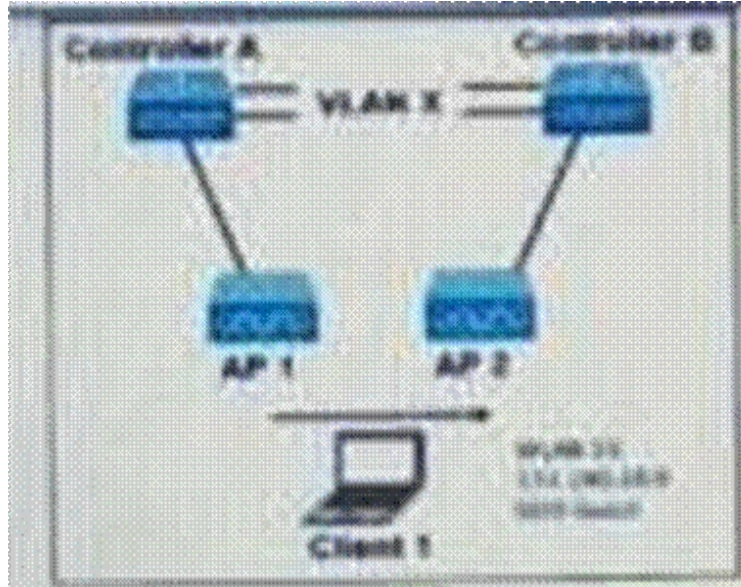
Both controllers are in the same mobility group. Which result occurs when client 1 roams between APs that are registered to different controllers in the same WLAN?

A. Client 1 contact controller B by using an EoIP tunnel.
B. CAPWAP tunnel is created between controller A and controller B.
C. Client 1 users an EoIP tunnel to contact controller A.
D. The client database entry moves from controller A to controller B.

Correct Answer: D
Section:

QUESTION 352
the following system log message is presented after a network administrator configures a GRE tunnel:
%TUN-5-RECURDOWN Interface Tunnel 0 temporarily disabled due to recursive routing.
Why is tunnel 0 disabled?

A. Because dynamic routing is not enabled
B. Because the tunnel cannot reach its tunnel destination
C. Because the best path to the tunnel destination is through the tunnel itself
D. Because the router cannot recursively identify its egress forwarding interface

Correct Answer: C
Section:

QUESTION 353
Which LISP infrastructure device provides connectivity between non-sites and LISP sites by receiving non-LISP traffic with a LISP site destination?

A. PETR
B. PITR
C. map resolver
D. map server

Correct Answer: B
Section:

QUESTION 354
Which QoS queuing method transmits packets out of the interface in the order the packets arrive?

A. custom
B. weighted- fair
C. FIFO
D. priority

Correct Answer: C
Section:

QUESTION 355
What is the recommended minimum SNR for Voice applications for networks?

A. 15
B. 20
C. 25
D. 10

Correct Answer: C
Section:
Explanation:
https://documentation.meraki.com/MR/WiFi_Basics_and_Best_Practices/Signal-to-
Noise_Ratio_(SNR)_and_Wireless_Signal_Strength#:~:text=Generally%2C%20a%20signal%20with%20an,networks%20that%20use%20voice%
20applications.

QUESTION 356
Which two results occur if Cisco DNA center loses connectivity to devices in the SD-ACCESS fabric?
(Choose two)

A. All devices reload after detecting loss of connection to Cisco DNA Center
B. Already connected users are unaffected, but new users cannot connect
C. User connectivity is unaffected
D. Cisco DNA Center is unable to collect monitoring data in Assurance
E. Users lose connectivity

Correct Answer: C, D
Section:

QUESTION 357
Refer to the exhibit.

```
Paths: (1 available, best #1, table default)
  Not advertised to any peer
  Refresh Epoch 1
  65002
    192.168.50.2 from 192.168.50.2 (172.20.0.2)
      Origin IGP, metric 0, localpref 100, valid, external, best
      rx pathid: 0, tx pathid: 0x0

<CONFIGURATION CHANGE MADE>

R1#show ip bgp 2.2.2.2
BGP routing table entry for 2.2.2.2/32, version 6
Paths: (1 available, best #1, table default, RIB-failure(17))
  Not advertised to any peer
  Refresh Epoch 1
  65002
    192.168.50.2 from 192.168.50.2 (172.20.0.2)
      Origin IGP, metric 0, localpref 100, valid, external, best
      rx pathid: 0, tx pathid: 0x0
```

R1 has a BGP neighborship with a directly connected router on interface Gi0/0.
Which command set is applied between the iterations of show ip bgp 2.2.2.2?

A. R1(config)#router bgp 65001
   R1(config-router)#neighbor 192.168.50.2 shutdown
B. R1(config)#router bgp 65002
   R1(config-router)#neighbor 192.168.50.2 shutdown
C. R1(config)#no ip route 192.168.50.2 255.255.255.255 Gi0/0
D. R1(config)#ip route 2.2.2.2 255.255.255.255 192.168.50.2

Correct Answer: D
Section:

QUESTION 358
Refer to the exhibit.

```
devices = []

file = open('devices.txt','r')
for line in file:

    device_info_list = line.strip().split(',')
    device_info = {}
    device_info['name'] = device_info_list[0]
    device_info['os-type'] = device_info_list[1]
    device_info['ip'] = device_info_list[2]
    device_info['username'] = device_info_list[3]
    device_info['password'] = device_info_list[4]

    devices.append(device_info)

print(devices)

file.close()
```

Refer to the exhibit. What is achieved when this Python script is executed?

A. Each device that is looped through in the devices.txt file is put into its own list that is appended to the parent dictionary.
B. Each device that is looped through in the devices.txt file is put into its own dictionary that is appended to the parent list.
C. All devices that are looped through in the devices.txt file are put into a list that is appended to the parent dictionary.
D. All devices that are looped through in the devices.txt file are put into a single dictionary that is appended to the parent list.

Correct Answer: D
Section:

QUESTION 359
Why are stateless calls executed by REST API useful in cloud applications?

A. They control URL decoding.
B. They rely on data stored on the server for calls
C. They use HTTPS to implement all calls.
D. They are easy to redeploy and to scale

Correct Answer: D
Section:

QUESTION 360
Which capability does a distributed virtual switch have?

A. use advanced IPsec encryption algorithms
B. use floating static routes
C. provide configuration consistency across the hosts
D. run dynamic routing protocols

Correct Answer: C

QUESTION 361
Refer to the exhibit.

```
Router#show running-config | section line vty
line vty 0 4
 login local
line vty 5 15
 login local
!
Router#show running-config | include username
username cisco secret 5 $1$cM67$v7NQK0g2BGit77x88U1/00
```

Refer to the exhibit. Which action automatically enables privilege exec mode when logging in via SSH?

A. Configure user 'Cisco' with privilege level 15.
B. Configure a password under the line configuration.
C. Configure privilege level 15 under the line configuration.
D. Configure the enable secret to be the same as the secret for user 'Cisco*.

Correct Answer: A
Section:

QUESTION 362
What is the function of an RP in a PIM-SM network?

A. to provide routing to the PIM leaf routers
B. to track sources and recovers on the shared distribution tree
C. to automate the distribution of group-to rendezvous point mappings
D. to connect multicast sources with receivers

Correct Answer: B
Section:

QUESTION 363
Refer to the exhibit.

```
from requests.auth import HTTPBasicAuth
import requests

ROUTER="192.0.2.1"
BASEURI="restconf/data/Cisco-IOS-XE-native:native"
SUBURI="router/router-bgp"

response = requests.get(
        f"https://{ROUTER}/{BASEURI}/{SUBURI}",
        auth=HTTPBasicAuth('admin', 'S3cr3tP4ss'),
        verify=False)

print(f"HTTP Response: {response.status_code} {response.reason}\n")
print(response.text)

admin@linux:/tmp$ python3 get-bgp.py
HTTP Response: 404 Not Found

<errors xmlns="urn:ietf:params:xml:ns:yang:ietf-restconf">
  <error>
        <error-message>uri keypath not found</error-message>
        <error-tag>invalid-value</error-tag>
        <error-type>application</error-type>
  </error>
</errors>

admin@linux:/tmp$
```

An engineer is creating a Pytnon script to fetch the BGP configuration from a device using RESTCONF. What does the output Indicate?

A. The BGP data resource identifier in the URL Incorrect.

B. There is no BGP process running on the device

C. RESTCONF is not enabled on the device.

Correct Answer: A
Section:

QUESTION 364
Which port is required to allow APs to join a WLC when directed broadcasts are used on a Cisco iOS switch?

A. UDP5246

B. TCP 5246

C. TCP 5247

D. UDP5247

Correct Answer: D
Section:

QUESTION 365
Which JSON script is properly formatted?
A)

```
{[
    "subject": {
    "title":"Basket Weaving"
    "listing":"841963"
    "session":"3"
    }
  ]
}
```

B)

```
{
  "class": [
  {
    "title":"Science",
    "Grade":"11",
    "location":"Room C"
  }
  ]
`,
```

C)

```
["frames": {
          "type": "premium"
          "material":"wood",
          "shape": "square",
      }
```

D)

```
[ "Restaurant":
      {
          "type":vegan,
          "location":B01,
          "contact":747-006-6954
      }
]
```

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

Correct Answer: B
Section: