

New ENCOR Questions 4

Question 1

An engineer must export the contents of the devices object in JSON format. Which statement must be use?

```
import json
from json import dumps, loads

Devices=[
{
    'name': 'distsw1',
    'ip': '192.168.255.1',
    'type': 'Catalyst C9407R',
    'user': 'netadmin',
    'pass': '383847459c9484940373dc038484943'
}]
```

- A. json.print(Devices)
- B. json.loads(Devices)
- C. json.dumps(Devices)
- D. json.repr(Devices)

Answer: C

Question 2

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, 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

Answer: B

Question 3

Refer to the exhibit.

```
R1#ping 10.1.3.2
Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 10.1.3.2, timeout is 2 seconds:
!!!!
Success rate is 100 percent (5/5), round-trip min/avg/max = 24/43/72 ms
```

```
R1#ping 10.1.3.2 size 1500
Type escape sequence to abort.
Sending 5, 1500-byte ICMP Echos to 10.1.3.2, timeout is 2 seconds:
!!!!
Success rate is 100 percent (5/5), round-trip min/avg/max = 24/48/60 ms
```

```
R1#debug ip icmp
ICMP packet debugging is on
```

```
R1#ping 10.1.3.2 size 1500 df-bit
Type escape sequence to abort.
Sending 5, 1500-byte ICMP Echos to 10.1.3.2, timeout is 2 seconds:
Packet sent with the DF bit set
MMMMM
Success rate is 0 percent (0/5)
```

An engineer troubleshoots connectivity issues with an application. Testing is performed from the server gateway, and traffic with the DF bit set is dropped along the path after increasing packet size. Removing the DF bit setting at the gateway prevents the packets from being dropped. What is the cause of this issue?

- A. PMTUD does not work due to ICMP Packet Too Big messages being dropped by an ACL
- B. The remote router drops the traffic due to high CPU load
- C. The server should not set the DF bit in any type of traffic that is sent toward the network
- D. There is a CoPP policy in place protecting the WAN router CPU from this type of traffic

Answer: C

Question 4

Refer to the exhibit.

```

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
!

```

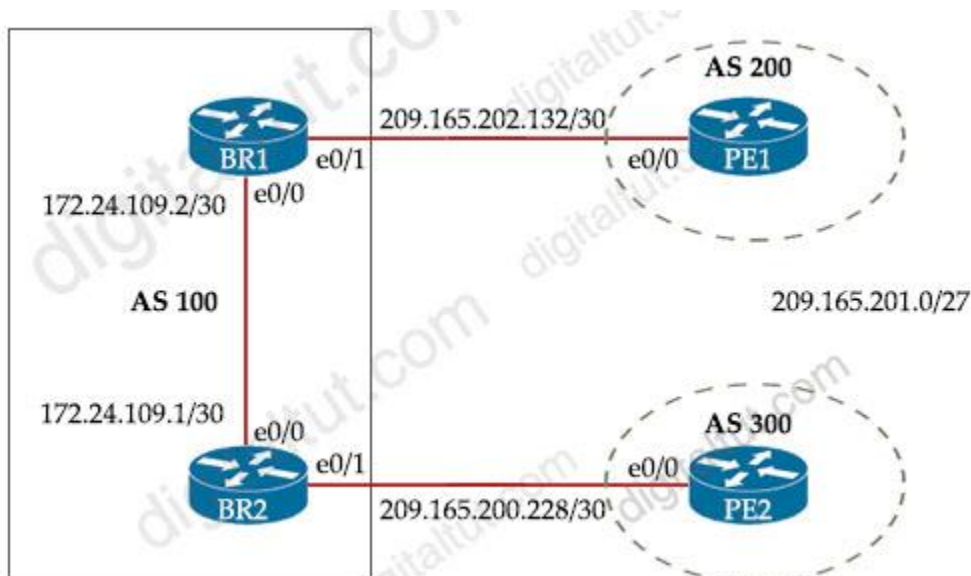
A network engineer must configure a password expiry mechanism on the gateway router for all local passwords to expire after 60 days. What is required to complete this task?

- A. Add the **username admin privilege 15 common-criteria-policy Administrators password 0 Cisco013579!** command
- B. No further action is required. The configuration is complete
- C. Add the **aaa authentication enable default Administrators** command
- D. The password expiry mechanism is on the AAA server and must be configured there

Answer: A

Question 5

Refer to the exhibit.



BR1 router bgp 100 neighbor 172.24.109.1 remote-as 100	PE1 router bgp 200
---	------------------------------

neighbor 172.24.109.1 next-hop self neighbor 209.165.202.134 remote-as 200	bgp log-neighbor-changes neighbor 209.165.202.133 remote as 100
BR2 router bgp 100 neighbor 172.24.109.2 remote-as 100 neighbor 172.24.109.2 next-hop-self neighbor 209.165.200.230 remote-as 300	PE2 router bgp 300 bgp log-neighbor-changes neighbor 209.165.200.229 remote as 100

```
BR2#sh ip route | i 209.165.201.0
209.165.201.0/27 is subnetted, 1 subnets
B 209.165.201.0 [20/0] via 209.165.200.230, 00:00:12
```

Which configuration change will force BR2 to reach 209.165.201.0/27 via BR1?

- A. Set the origin to igp on BR2 toward PE2 inbound
- B. Set the local preference to 150 on PE1 toward BR1 outbound
- C. Set the weight attribute to 65,535 on BR1 toward PE1
- D. Set the MED to 1 on PE2 toward BR2 outbound

Answer: D

Question 6

What are two benefits of YANG? (Choose two)

- A. It collects statistical constraint analysis information
- B. It enforces the use of specific encoding format for NETCONF
- C. It enforces configuration semantics
- D. It enables multiple leaf statements to exist within a leaf list
- E. It enforces configuration constraints

Answer: B E

Question 7

Refer to the exhibit.

```
R1#show running-config interface fa0/0
Building configuration...

Current configuration: 192 bytes
!
interface FastEthernet0/0
 ip address 192.68.3.5 255.255.255.0
 duplex full
 vrrp 1 ip 192.168.3.1
 vrrp 1 priority 110
 vrrp 1 authentication text cisco
 vrrp 1 track 20 decrement 20
end

R1#show running-config | include track 20
track 20 ip route 10.10.1.1 255.255.255.255 reachability
```

```
R2#show running-config interface fa0/0
Building configuration...

Current configuration: 141 bytes
!
interface FastEthernet0/0
 ip address 192.68.3.2 255.255.255.0
 duplex full
 vrrp 1 ip 192.168.3.1
 vrrp 1 authentication text cisco
end
```

An engineer configures VRRP and issues the show commands to verify operation. What does the engineer confirm about VRRP group 1 from the output?

- A. There is no route to 10.10.1.1/32 in R2's routing table
- B. If R1 reboots, R2 becomes the master virtual router until R2 reboots
- C. Communication between VRRP members is encrypted using MD5
- D. R1 is master if 10.10.1.1/32 is in its routing table

Answer: D

Question 8

Refer to the exhibit.

```
flow record Recorder
 match ipv4 protocol
 match ipv4 source address
 match ipv4 destination address
 match transport source-port
 match transport destination-port
```

```

!
flow exporter Exporter
 destination 192.168.100.22
 transport udp 2055
!
flow monitor Monitor
 exporter Exporter
 record Recorder
!
et-analytics
 ip flow-export destination 192.168.100.22 2055
!
interface gil
 ip flow monitor Monitor input
 ip flow monitor Monitor output
 et-analytics enable
!

```

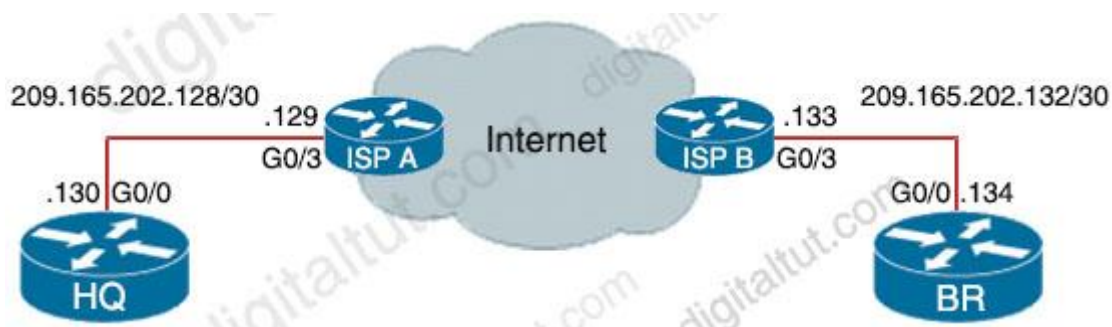
An engineer must add the SNMP interface table to the NetFlow protocol flow records. Where should the SNMP table option be added?

- A. under the interface
- B. under the flow record
- C. under the flow monitor
- D. under the flow exporter

Answer: D

Question 9

Refer to the exhibit.



```

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

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

```

What is the effect of these commands on the BR and HQ tunnel interfaces?

- 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

Answer: B

Question 10

In Cisco SD-WAN, which protocol is used to measure link quality?

- A. OMP
- B. BFD
- C. RSVP
- D. IPsec

Answer: B

Question 11

What is used to perform QoS packet classification?

- A. the Options field in the Layer 3 header
- B. the Type field in the Layer 2 frame
- C. the Flags field in the Layer 3 header
- D. the ToS field in the Layer 3 header

Answer: D

Question 12

Refer to the exhibit.

```
def get_token():  
    device_url="https://192.168.1.1/dna/sytem/api/v1/auth/token"  
    http_result = requests.post(device_url, auth = ("test","test34393838!"))  
    if http_result.status_code != requests.codes.ok:  
        print("Call failed!" Review get_token().")  
        sys.exit()  
    return(http_result.json()["Token"])
```

Which HTTP code must be returned to prevent the script from exiting?

- A. 200
- B. 201

- C. 300
- D. 301

Answer: A

Question 13

Which LISP component is required for a LISP site to communicate with a non-LISP site?

- A. ETR
- B. ITR
- C. Proxy ETR
- D. Proxy ITR

Answer: C

Question 14

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

Answer: D

Question 15

Which technology is used as the basis for the Cisco SD-Access data plane?

- A. IPsec
- B. LISP
- C. VXLAN
- D. 802.1Q

Answer: C

Question 16

“HTTP/1.1 204 content” is returned when `curl -l -x DELETE` command is issued. Which situation has occurred?

- 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

Answer: B

Question 17

An engineer must provide wireless converge in a square office. The engineer has only one AP and believes that it should be placed it in the middle of the room. Which antenna type should the engineer use?

- A. directional
- B. polarized
- C. Yagi
- D. omnidirectional

Answer: D

Question 18

While configuring an IOS router for HSRP with a virtual IP of 10.1.1.1, an engineer sees this log message:

Jan 1 12:12:14.122: %HSRP-4-DIFFVIP1: GigabitEthernet0/0 Grp 1 active routers virtual IP address 10.1.1.1 is different to the locally configured address 10.1.1.25

Which configuration change must the engineer make?

- A. Change the HSRP group configuration on the remote 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 local router to 1

Answer: B

Question 19

What is a characteristic of YANG?

- A. It is a Cisco proprietary language that models NETCONF data
- B. It allows model developers to create custom data types

- C. It structures data in an object-oriented fashion to promote model reuse
- D. It provides loops and conditionals to control how within models

Answer: C

Question 20

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-USP traffic from one address family to LISP sites in a different address family

Answer: C

Question 21

When is an external antenna used inside a building?

- A. only when using 5 GHz
- B. only when using 2.4 GHz
- C. when it provides the required coverage
- D. only when using Mobility Express

Answer: C

Question 22

Drag and drop the snippets onto the blanks within the code construct a script that configure a loopback interface with an IP address. Not all options are used.

```

{
  "@message-id": "101",
  "edit-config": {
    1 {
      "running": null
    },
    "config": {
      "native": {
        "interface": {
          "Loopback": {
            2 ,
            "ip": {
              "address": {
                3 {
                  "address": "10.10.10.10",
                  4 "255.255.255.255"
                }
              }
            }
          }
        }
      }
    }
  }
}

```

A "fixed":

B "config":

C "mask":

D "primary":

E "target":

F "name": "100"

Answer:

- 1 – E
- 2 – F
- 3 – D
- 4 – C

Question 23

Drag and drop the characteristics from the left onto the orchestration tools they describe on the right.

utilizes a pull model	Ansible
utilizes a push model	
multimaster architecture	
primary/secondary architecture	Puppet

Answer:

Ansible

- + utilizes a push model
- + primary/secondary architecture

Puppet

- + utilizes a pull model
- + multimaster architecture

Question 24

Refer to the exhibit.

```
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

How was spanning-tree configured on this interface?

- By entering the command **spanning-tree portfast trunk** in the interface configuration mode.
- By entering the command **spanning-tree portfast** in the interface configuration mode
- By entering the command **spanning-tree mst1 vlan 10,20,30,40** in the global configuration mode
- By entering the command **spanning-tree vlan 10,20,30,40 root primary** in the interface configuration mode

Answer: A

Question 25

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

Answer: A

Question 26

How is Layer 3 roaming accomplished in a unified wireless deployment?

- A. An EoIP tunnel is created between the client and the anchor controller to provide seamless connectivity as the client is associated with the new AP
- B. The client entry on the original controller is passed to the database on the new controller
- C. The new controller assigns an IP address from the new subnet to the client
- D. The client database on the original controller is updated the anchor entry, and the new controller database is updated with the foreign entry.

Answer: B

Question 27

A network administrator has designed a network with two multilayer switches on the distribution layer, which act as default gateways for the end hosts. Which two technologies allow every end host in a VLAN to use both gateways? (Choose two)

- A. HSRP
- B. GLBP
- C. MHSRP
- D. VRRP
- E. VSS

Answer: B C

Question 28

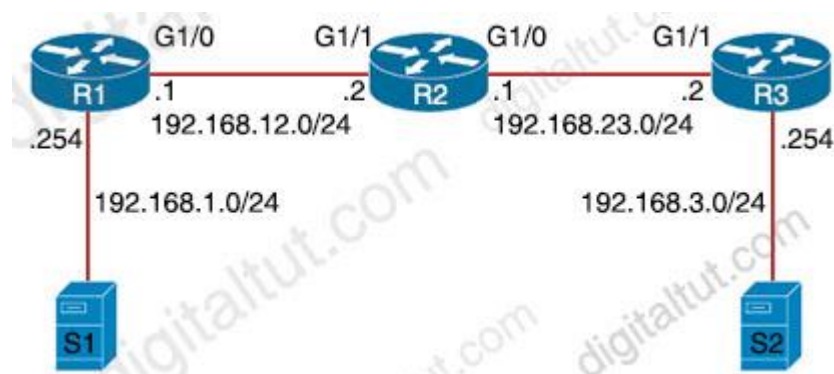
Which measurement is used from a post wireless survey to depict the cell edge of the access points?

- A. CCI
- B. Noise
- C. SNR
- D. RSSI

Answer: D

Question 29

Refer to the exhibit.



```
Frame 7: 114 bytes on wire (912 bits), 114 bytes captured (912 bits)
Ethernet II, Src: cc:03:25:a4:00:00 (cc:03:25:a4:00:00), Dst: cc:00:25:a4:00:00 (cc:00:25:a4:00:00)
Internet Protocol Version 4, Src: 192.168.1.1 (192.168.1.1), Dst: 192.168.3.1 (192.168.3.1)
  Version: 4
  Header length: 20 bytes
  Differentiated Services Field: 0x00 (DSCP 0x00: Default; ECN: 0x00: Not-ECT (Not ECN-Capable Transport))
  Total Length: 100
  Identification: 0x0001 (1)
  Flags: 0x00
  Fragment offset: 0
  Time to live: 2
  Protocol: ICMP (1)
  Header checksum: 0x3645 [correct]
  Source: 192.168.1.1 (192.168.1.1)
  Destination: 192.168.3.1 (192.168.3.1)
Internet Control Message Protocol
  Type: 8 (Echo (ping) request)
  Code: 0
  Checksum: 0xa094 [correct]
  Identifier (BE): 0 (0x0000)
  Identifier (LE): 0 (0x0000)
  Sequence number (BE): 1 (0x0001)
  Sequence number (LE): 256 (0x0100)
[No response seen]
Data (72 bytes)
```

While troubleshooting a routing issue, an engineer issues a ping from S1 to S2. Which 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. R1 replies with a TTL exceeded message
- D. The packet reaches R2 and the TTL expires
- E. R3 replies with a TTL exceeded message
- F. The packet reaches R1 and the TTL expires

Answer: A E

Question 30

Refer to the exhibit.

```
Router#show access-list
Extended IP access list 100
 10 permit ip 192.168.0.0 0.0.255.255 any
 20 permit ip 172.16.0.0 0.0.15.255 any
```

Which command set must be added to permit and log all traffic that comes from 172.20.10.1 in interface GigabitEthernet0/1 without impacting the functionality of the access list?

Option A

```
Router(config)#ip access-list extended 100
Router(config-ext-nacl)#5 permit ip 172.20.10.0 0.0.0.255 any log
Router(config)#interface GigabitEthernet0/1
Router(config-if)#access-group 100 in
```

Option B

```
Router(config)#no access-list 100 permit ip 172.16.0.0 0.0.15.255 any
Router(config)#access-list 100 permit ip 172.16.0.0 0.0.15.255 any log
Router(config)#interface Gigabit Ether net0/1
Router(config-if)#access-group 100 in
```

Option C

```
Router(config)#access-list 100 permit ip host 172.20.10.1 any log
Router(config)#interface GigabitEthernet0/1
Router(config-if)#access-group 100 in
```

Option D

```
Router(config)#access-list 100 seq 5 permit ip host 172.20.10.1 any log
Router(config)#interface GigabitEthernet0/1
Router(config-if)#access-group 100 in
```

- A. Option A
- B. Option B

- C. Option C
- D. Option D

Answer: C

Question 31

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

- A. To connect the Cisco SD-Access fabric to another fabric or external Layer 3 networks
- B. To collect traffic flow information toward external 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.

Answer: A

Question 32

How are the different versions of IGMP compatible?

- A. IGMPv2 is compatible only with IGMPv1
- B. IGMPv2 is compatible only with IGMPv2
- C. IGMPv3 is compatible only with IGMPv3
- D. IGMPv3 is compatible only with IGMPv1

Answer: A

Question 33

What is one benefit of implementing a VSS architecture?

- A. It provides multiple points of management for redundancy and improved support.
- B. It provides a single point of management for improved efficiency
- C. It uses GLBP to balance traffic between gateways
- D. It uses a single database to manage configuration for multiple switches

Answer: B

Question 34

Which entity is a Type 1 hypervisor?

- A. Oracle VM VirtualBox
- B. VMware server
- C. Citrix XenServer
- D. Microsoft Virtual PC

Answer: C

Question 35

An engineer runs the code against an API of Cisco DNA Center, and the platform returns this output.

```
import requests
import sys
import urllib3

urllib3.disable_warnings(urllib3.exceptions.InsecureRequestWarning)

def main():
    device_uri = "https://192.168.1.1/dna/system/api/v1/auth/token"
    http_result = requests.get(device_uri, auth=("root", "test39383746!"))
    print(http_result)
    if http_result.status_code != requests.codes.ok:
        print("Call failed! Review get_token().")
        sys.exit()
    print(http_result.json()["Token"])

if __name__ == "__main__":
    sys.exit(main())
```

Output

```
$ python get_token.py
<Response [405]>
Call failed! Review get_token().
```

What does the response indicate?

- A. The authentication credentials are incorrect
- B. The URI string is incorrect
- C. The Cisco DNA Center API port is incorrect
- D. The HTTP method is incorrect

Answer: D

Question 36

What is a consideration when designing a Cisco SD-Access underlay network?

- A. End user subnets and endpoints are part of the underlay network
- B. The underlay switches provide endpoint physical connectivity for users
- C. Static routing is a requirement
- D. It must support IPv4 and IPv6 underlay networks

Answer: B

Question 37

What is a characteristic of a virtual machine?

- A. It relies on hypervisors to allocate computing resources for it
- B. It is deployable without a hypervisor to host it
- C. It must run the same operating system as its host
- D. It must be aware of other virtual machines, in order to allocate physical resources for them

Answer: A

Question 38

What is one difference between Saltstack and Ansible?

- A. SaltStack uses an API proxy agent to program Cisco boxes on agent mode, whereas Ansible uses a Telnet connection
- B. SaltStack uses the Ansible agent on the box, whereas Ansible uses a Telnet server on the box
- C. SaltStack is constructed with minion, whereas Ansible is constructed with YAML
- D. SaltStack uses SSH to interact with Cisco devices, whereas Ansible uses an event bus

Answer: A

Question 39

What is the centralized control policy in a Cisco SD-WAN deployment?

- A. list of ordered statements that define user access policies
- B. list of enabled services for all nodes within the cloud
- C. set of rules that governs nodes authentication within the cloud
- D. set of statements that defines how routing is performed

Answer: D

Question 40

Which command set configures RSPAN to capture outgoing traffic from VLAN 3 on interface GigabitEthernet 0/3 while ignoring other VLAN traffic on the same interface?

Option A

```
monitor session 2 source interface gigabitethernet0/3 rx
monitor session 2 filter vlan 3
```

Option B

```
monitor session 2 source interface gigabitethernet0/3 tx
monitor session 2 filter vlan 3
```

Option C

```
monitor session 2 source interface gigabitethernet0/3 rx
monitor session 2 filter vlan 1-2,4 – 4094
```

Option D

```
monitor session 2 source interface gigabitethernet0/3 tx
monitor session 2 filter vlan 1-2, 4 – 4094
```

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

Answer: B

Question 41

Refer to the exhibit.

```
R1#show crypto isakmp sa
IPv4 Crypto ISAKMP SA
dst          src          state      conn-id   status
209.165.201.6 209.165.201.1 QM_IDLE   101       ACTIVE
```

After configuring an IPsec VPN, an engineer enters the show command to verify the ISAKMP SA status. What does the status show?

- A. Peers have exchanged keys, but ISAKMP SA remains unauthenticated.
- B. ISAKMP SA is authenticated and can be used for Quick Mode.
- C. VPN peers agreed on parameters for the ISAKMP SA
- D. ISAKMP SA has been created, but it has not continued to form.

Answer: B

Question 42

Refer to the exhibit.

```
ip vrf BLUE
rd 1:1
!
interface Vlan100
description GLOBAL_INTERFACE
ip address 10.10.1.254 255.255.255.0
!
access-list 101 permit ip 10.10.5.0 0.0.0.255 10.10.1.0 255.255.255.0
!
route-map VRF_TO_GLOBAL permit 10
match ip address 101
set global
!
interface Vlan500
description VRF_BLUE
ip vrf forwarding BLUE
ip address 10.10.5.254 255.255.255.0
ip policy route-map VRF_TO_GLOBAL
```

An engineer attempts to create a configuration to allow the Blue VRF to leak into the global routing table, but the configuration does not function as expected. Which action resolves this issue?

- A. Change the access-list number in the route map
- B. Change the source network that is specified in access-list 101
- C. Change the route-map configuration to VRF_BLUE
- D. Change the access-list destination mask to a wildcard

Answer: D

Question 43

Refer to the exhibit.

The screenshot shows a Postman interface for a GET request to `https://sandboxdnac.cisco.com/dna/intent/api/v1/network-devices`. The 'Headers' tab is active, showing a single header: `X-Auth-Token` with a value `ejeiXVIEKkdjfEkdjfkEkgighWlmddkfjhEkevydkiEMHsfew`. Below the headers, the 'Body' tab is active, displaying a JSON response in 'Pretty' format. The response indicates a 'Bad request' with the message 'Invalid input request' and a detail stating 's is not a valid UUID of device'. The status bar at the top right shows 'Status: 400 Ba'.

```
1 {
2   "response": {
3     "errorCode": "Bad request",
4     "message": "Invalid input request",
5     "detail": "s is not a valid UUID of device"
6   },
7   "version": "1.0"
8 }
```

POSTMAN is showing an attempt to retrieve network device information from Cisco DNA Center API. What is the issue?

- A. The token has expired
- B. The URI string is incorrect
- C. Authentication has failed
- D. The JSON payload contains the incorrect UUID

Answer: B

Question 44

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

Answer: A

Question 45

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

Answer: A

Question 46

Which Cisco DNA center application is responsible for group-based access control permissions?

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

Answer: D

Question 47

Refer to the exhibit.



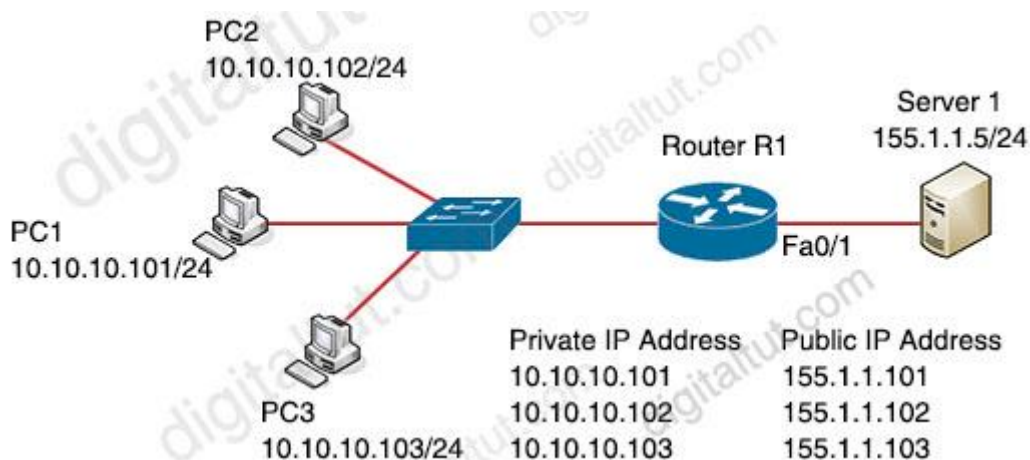
An engineer attempts to configure a trunk between switch SW1 and switch SW2 using DTP, but the trunk does not form. Which command should the engineer apply to switch SW2 to resolve this issue?

- A. switchport mode access
- B. switchport nonegotiate
- C. no switchport
- D. switchport mode dynamic desirable

Answer: D

Question 48

Refer to the exhibit.



Which set of commands on router R1 allow deterministic translation of private hosts PC1, PC2, and PC3 to addresses in the public space?

Option A

```
RouterR1(config)#int f0/0
RouterR1(config)#ip nat inside
RouterR1(config-if)#exit
RouterR1(config)#int f0/1
RouterR1(config)#ip nat outside
RouterR1(config-if)#exit
RouterR1(config-if)#access-list 1 10.10.10.0 0.0.0.255
RouterR1(config)#ip nat pool POOL 155.1.1.101 155.1.1.103 netmask 255.255.255.0
RouterR1(config)#ip nat inside source list 1 pool POOL
```

Option B

```
RouterR1(config)#int f0/0
RouterR1(config)#ip nat outside
RouterR1(config-if)#exit
RouterR1(config)#int f0/1
RouterR1(config)#ip nat inside
RouterR1(config-if)#exit
RouterR1(config)#ip nat inside source static 10.10.10.101 155.1.1.101
RouterR1(config)#ip nat inside source static 10.10.10.102 155.1.1.102
RouterR1(config)#ip nat inside source static 10.10.10.103 155.1.1.103
```

Option C

```
RouterR1(config)#int f0/0
RouterR1(config)#ip nat inside
RouterR1(config-if)#exit
RouterR1(config)#int f0/1
RouterR1(config)#ip nat outside
RouterR1(config-if)#exit
RouterR1(config)#ip nat inside source static 10.10.10.101 155.1.1.101
RouterR1(config)#ip nat inside source static 10.10.10.102 155.1.1.102
RouterR1(config)#ip nat inside source static 10.10.10.103 155.1.1.103
```

Option D

```
RouterR1(config)#int f0/0
RouterR1(config)#ip nat inside
RouterR1(config-if)#exit
RouterR1(config)#int f0/1
RouterR1(config)#ip nat outside
RouterR1(config-if)#exit
RouterR1(config-if)#access-list 1 10.10.10.0 0.0.0.255
RouterR1(config)#ip nat inside source list 1 interface f0/1 overload
```

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

Answer: C

Question 49

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. intra-controller
- C. inter-controller
- D. inter-subnet

Answer: C

Question 50

Which line must be added in the Python function to return the JSON object {"cat_9k": "FXS193202SE"}?

```
import json
def get_data():
    test_json = """
    {
        "response": [{
            "managementAddress": "10.10.2.253",
            "memorySize": "3398345152",
            "serialNumber": "FXS1932Q2SE",
            "softwareVersion": "16.3.2",
            "hostname": "cat_9k"
        }],
        "version": "1.0"
    }
    """
```

- A. return (json.dumps({d['hostname']: d['serialNumber'] for d in json.loads(test_json)['response']}))
- B. return (json.loads({for d in json.dumps(test_json)['response']: d['hostname']: d['serialNumber']}))
- C. return (json.loads({d['hostname']: d['serialNumber'] for d in json.dumps(test_json)['response']}))
- D. return (json.dumps({for d in json.loads(test_json)['response']: d['hostname']: d['serialNumber']}))

Answer: D

Question 51

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

Answer: C D

Question 52

Refer to the exhibit.

```
R2#show standby
FastEthernet1/0 - Group 50
  State is Active
    2 state changes, last state change 00:00:58
  Virtual IP address is 10.10.1.1
  Active virtual MAC address is 0000.0c07.ac32 (MAC In Use)
  Local virtual MAC address is 0000.0c07.ac32 (v1 default)
  Hello time 3 sec, hold time 10 sec
    Next hello sent in 0.704 secs
  Preemption enabled, delay reload 90 secs
  Active router is local
  Standby router is unknown
  Priority 200 (configured 200)
    Track interface FastEthernet0/0 state Up decrement 20
  Group name is "hsrp-Fa1/0-50" (default)
R2#
%IP-4-DUPADDR: Duplicate address 10.10.1.1 on FastEthernet1/0, sourced by 0000.0c07.ac28
R2#
```

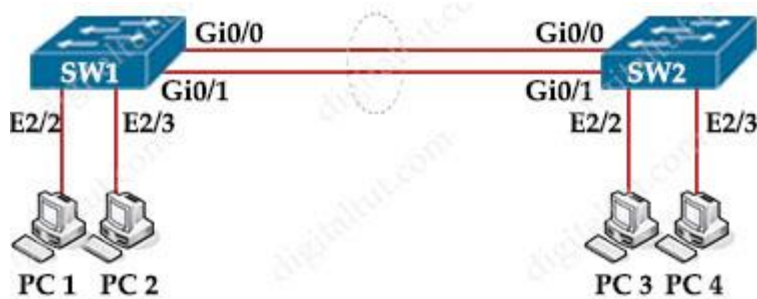
An engineer configures a new HSRP group. While reviewing the HSRP status, the engineer sees the logging message generated on R2. Which is the cause of the message?

- A. A PC is on the network using the IP address 10.10.1.1
- B. The HSRP configuration has caused a spanning-tree loop
- C. The HSRP configuration has caused a routing loop
- D. The same virtual IP address has been configured for two HSRP groups

Answer: D

Question 53

Refer to the exhibit. A network engineer troubleshoots an issue with the port channel between SW1 and SW2. Which command resolves the issue?



```
*Aug 12 02:22:23.233: %LINK-3-UPDOWN: Interface Port-channel10, changed state to down
*Aug 12 02:22:24.236: %LINEPROTO-5-UPDOWN: Line protocol on Interface Port-channel10, changed state to down
*Aug 12 02:22:27.237: %ETC-5-L3DONTBNL2: Gi0/1 suspended: LACP currently not enabled on the remote port
*Aug 12 02:22:29.233: %ETC-5-L3DONTBNL2: Gi0/0 suspended: LACP currently not enabled on the remote port
```

- A. SW1(config-if)#channel-group 10 mode active
- B. SW1(config-if)#channel-group 10 mode desirable
- C. SW2(config-if)#channel-group 10 mode on
- D. SW2(config-if)#switchport mode trunk

Answer: A

Question 54

Which new enhancement was implemented in Wi-Fi 6?

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

Answer: C

Question 55

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

- A. MSDP depends on BGP or multiprotocol BGP for interdomain operation
- B. MSDP allows a rendezvous point to dynamically discover active sources outside of its domain
- C. MSDP SA request messages are used to request a list of active sources for a specific group
- D. MSDP messages are used to advertise active sources in a domain

Answer: D

Question 56

Drag and drop the characteristics from the left onto the routing protocols they describe on the right.

can automatically summarize networks at the boundary	EIGRP
supports virtual links	
requires manual configuration of network summarization	OSPF

Answer:

EIGRP

- + can automatically summarize networks at the boundary

OSPF

- + supports virtual links
- + requires manual configuration of network summarization

Question 57

Drag and drop the characteristics from the left onto the protocols they apply to on the right.

uses Diffused Update Algorithm	OSPF
uses Dijkstra's Shortest Path First algorithm	
uses an election process	
uses bandwidth, delay, reliability and load for routing metric	EIGRP

Answer:

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

Question 58

How is 802.11 traffic handled in a fabric-enabled SSID?

- A. converted by the AP into 802.3 and encapsulated into a VLAN
- B. centrally switched back to WLC where the user traffic is mapped to a VXLAN on the WLC
- C. centrally switched back to WLC where the user traffic is mapped to a VLAN on the WLC
- D. converted by the AP into 802.3 and encapsulated into VXLAN

Answer: D

Question 59

Drag and drop the wireless elements on the left to their definitions on the right.

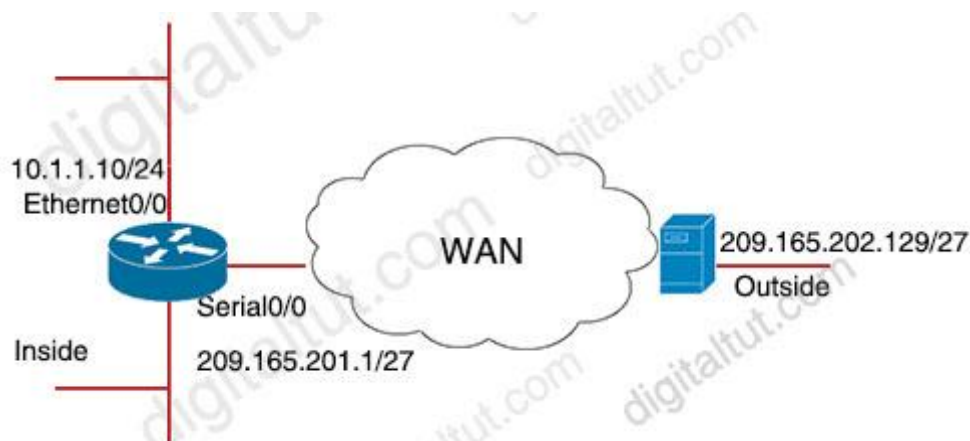
polarization	the relative increase in signal strength of an antenna in a given direction
beamwidth	a graph that shows the relative intensity of the signal strength of an antenna within its space
radiation patterns	measures the angle of an antenna pattern in which the relative signal strength is half-power below the maximum value
gain	radiated electromagnetic waves that influence the orientation of an antenna within its electromagnetic field

Answer:

- + the relative increase in signal strength of an antenna in a given direction: gain
- + a graph that shows the relative intensity of the signal strength of an antenna within its space: radiation patterns
- + measures the angle of an antenna pattern in which the relative signal strength is half-power below the maximum value: beamwidth
- + radiated electromagnetic waves that influence the orientation of an antenna within its electromagnetic field: polarization

Question 60

Refer to the exhibit.



```

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 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:
Inside Interfaces:
Ethernet0/0
Hits: 119 Misses: 1
Expired translations: 0
Dynamic mappings:
-- Inside Source
access-list 1 pool Busi refcount 1
pool fred: 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
```

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

- A. R1 is configured with NAT overload parameters
- B. The first packet triggered NAT to add an entry to NAT table
- C. A Telnet from 160.1.1.1 to 10.1.1.10 has been initiated
- D. R1 is configured with PAT overload parameters

Answer: B

Question 61

Which congestion queuing method on Cisco IOS based routers uses four static queues?

- A. low latency
- B. custom
- C. weighted fair
- D. Priority

Answer: D

Question 62

What does the Cisco DNA REST response indicate?

```

{
  "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": "C9300-24UX",
      "reachabilityFailureReason": "",
      "reachabilityStatus": "Authentication Failed",
      "hostname": "cat9000-1",
      "macAddress": "f8:7b:20:67:62:80",
    },
    {
      "family": "Switches and Hubs",
      "interfaceCount": "59",
      "lineCardCount": "2",
      "platformId": "WS-C3850-48U-E",
      "reachabilityFailureReason": "",
      "reachabilityStatus": "Unreachable",
      "hostname": "cat3850-1",
      "macAddress": "cc:d8:c1:15:d2:80",
    }
  ],
  "version": "1.0"
}

```

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

Answer: A

Question 63

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

- A. local
- B. sniffer

- C. bridge
- D. monitor

Answer: D

Question 64

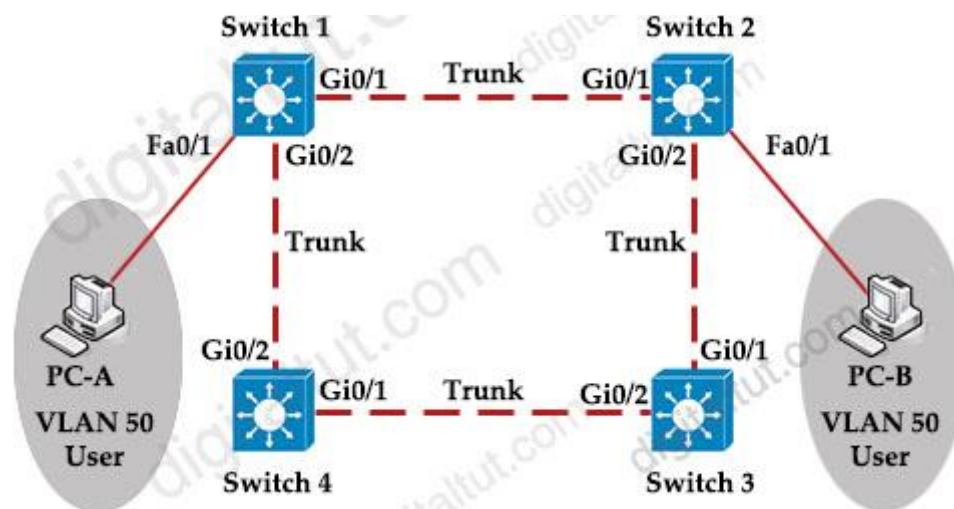
Where is radio resource management performed in a Cisco SD-access wireless solution?

- A. control plane node
- B. DNA Center
- C. Cisco CMX
- D. wireless controller

Answer: D

Question 65

Refer to the exhibit.



Rapid PVST+ is enabled on all switches. Which command set must be configured on Switch1 to achieve the following results on port fa0/1?

- + When a device is connected, the port transitions immediately to a forwarding state
- + The interface should not send or receive BPDUs.
- + If a BPDU is received, it continues operating normally.

A.

```
Switch1(config)# interface f0/1
Switch1(config-if)# spanning-tree portfast
Switch1(config-if)# spanning-tree bpduguard enable
```

B.

```
Switch1(config)# spanning-tree portfast bpduguard default
Switch1(config)# interface f0/1
Switch1(config-if)# spanning-tree portfast
```

C.

```
Switch1(config)#interface f0/1
Switch1(config-if)# spanning-tree portfast
```

D.

```
Switch1(config)#spanning-tree portfast bpdupfilter default
Switch1(config)# interface f0/1
Switch1(config-if)# spanning-tree portfast
```

Answer: D

Question 66

Refer to the exhibit.

```
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)
```

After running the code in the exhibit. Which step reduces the amount of data that NETCONF server returns to the NETCONF client, to only the interface's configuration?

- A. Create an XML filter as a string and pass it to get_config() method as an argument
- B. Use the txml library to parse the data returned by the NETCONF server for the interface's configuration
- C. Create a JSON filter as a string and pass it to the get_config() method as an argument
- D. Use the JSON library to parse the data returned by the NETCONF server for the interface's configuration

Answer: A

Question 67

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:

```
*Jun 5 33:34:33.033: %TCP-6-BADAUTH: Invalid MD5 digest from 10.10.10.1 (29832) to 10.120.10.1 (179) tableid -0
```

Which two configurations allow a peering session to form between R1 and R2? (Choose two)

A.

```
R2(config-router)#neighbor 10.10.10.1 peer-group CORP
R2(config-router)#neighbor CORP password Cisco
```

B.

```
R2(config-router)#neighbor 10.10.10.1 peer-group CORP
R2(Config-router)#neighbor PEER password Cisco
```

C.

```
R1(config-router)#neighbor 10.10.10.1 peer-group CORP
R1(config-router)#neighbor CORP 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 10.120.10.1 peer-group CORP
R2(config-router)#neighbor CORP password Cisco
```

Answer: C E

Question 68

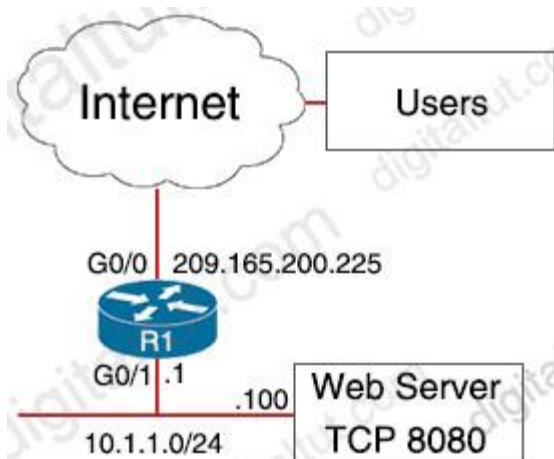
Which device makes the decision for a wireless client to roam?

- A. wireless client
- B. access point
- C. wireless LAN controller
- D. WCS location server

Answer: A

Question 69

Refer to the exhibit.



External users require HTTP connectivity to an internal company web server that is listening on TCP port 8080. Which command set accomplishes this requirement?

Option A <pre>interface G0/0 ip address 209.165.200.225 255.255.255.224 ip nat inside</pre>	Option B <pre>interface G0/0 ip address 209.165.200.225 255.256.255.224 ip nat inside interface G0/1 ip address 10.1.1.1 255.255.255.0 ip nat outside ip nat inside source static tcp 209.165.200.225 80 10.1.1.100 8080</pre>
Option C <pre>interface G0/0 ip address 209.165.200.225 255.255.255.224 ip nat inside interface G0/1 ip address 10.1.1.1 255.255.255.0 ip nat outside ip nat inside source static tcp 10.1.1.1 8080 209.166.200.225 80</pre>	Option D <pre>interface G0/0 ip address 209.165.200.225 255.255.255.224 ip nat outside interface G0/1 ip address 10.1.1.1 255.255.255.0 ip nat inside ip nat inside source static tcp 10.1.1.100 8080 interface G0/0 80</pre>
Option E <pre>interface G0/0 ip address 209.165.200.225 255.255.255.224 ip nat outside</pre>	

<pre>interface G0/1 ip address 10.1.1.1 255.255.255.0 ip nat inside ip nat inside source static tcp 209.165.200.225 8080 10.1.1.100 8080</pre>	
---	--

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

Answer: D

Question 70

Which three elements determine Air Time efficiency? (Choose three)

- A. event-driven RRM
- B. data rate (modulation density) or QAM
- C. channel bandwidth
- D. number of spatial streams and spatial reuse
- E. RF group leader
- F. dynamic channel assignment

Answer: B C D

Question 71

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

Answer: A

Question 72

Refer to the exhibit.

```
def get_credentials():
```

```
creds={'username':'cisco','password':'c339348dc30e3fbig3kjr93godke333'}  
return(creds.get('username'))  
  
print(get_credentials())
```

What is the output of this code?

- A. username Cisco
- B. get_credentials
- C. username
- D. cisco

Answer: D

Question 73

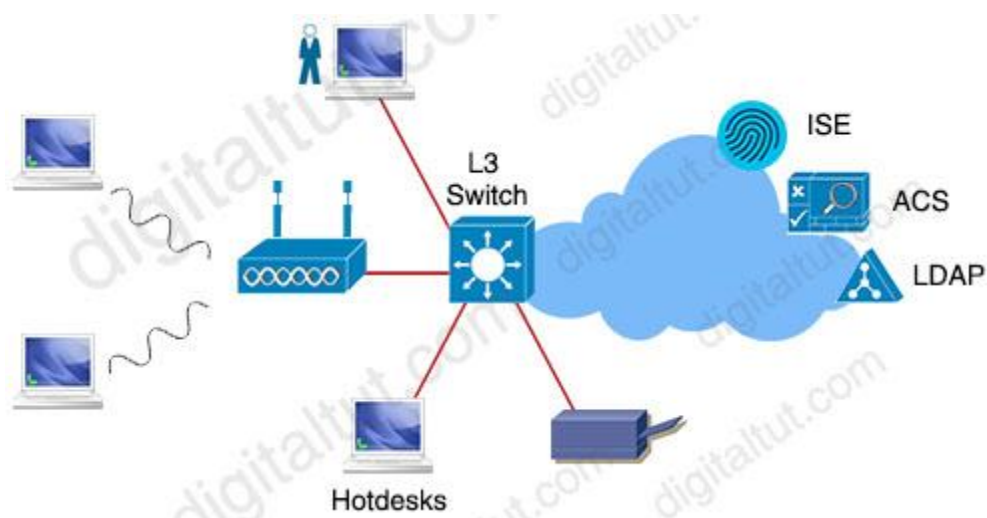
Which two threats does AMP4E have the ability to block? (Choose two)

- A. DDoS
- B. ransomware
- C. SQL injection
- D. Microsoft Word macro attack
- E. email phishing

Answer: B D

Question 74

Refer to the exhibit.



Which single security feature is recommended to provide Network Access Control in the enterprise?

- A. 802.1X
- B. MAB
- C. WebAuth
- D. port security sticky MAC

Answer: A

Question 75

Refer to the exhibit.

```
%OSPF-5-ADJCHG: Process 1, Nbr 10.0.0.2 on FastEthernet0/0 from FULL to DOWN,  
Neighbor Down: Interface down or detached  
%OSPF-6-AREACHG: 10.0.0.1/32 changed from area 0 to area 1  
%OSPF-4-ERRRCV: Received invalid packet: mismatch area ID, from  
backbone area must be virtual-link but not found from 10.0.0.2,  
FastEthernet0/0
```

What is the cause of the log messages?

- A. OSPF area change
- B. hello packet mismatch
- C. MTU mismatch
- D. IP address mismatch

Answer: A

Question 76

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

Answer: C D

Question 77

What are two characteristics of VXLAN? (Choose two)

- A. It uses VTEPs to encapsulate and decapsulate frames.
- B. It has a 12-bit network identifier
- C. It extends Layer 2 and Layer 3 overlay networks over a Layer 2 underlay.
- D. It lacks support for host mobility
- E. It allows for up to 16 million VXLAN segments

Answer: A E

Question 78

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 probe timed out
- C. The destination port is unreachable
- D. The protocol is unreachable

Answer: B

Question 79

Refer to the exhibit.



<pre> interface Tunnel 100 ip address 192.168.100.1 255.255.255.0 keepalive 5 4 tunnel source GigabitEthernet0/0 tunnel destination 209.165.201.2 ! interface GigabitEthernet0/0 ip address 209.165.200.226 255.255.255.252 ! interface GigabitEthernet0/1 ip address 10.1.1.1 255.255.255.0 ! router ospf 100 network 0.0.0.0 255.255.255.255 area 0 ! ip route 0.0.0.0 0.0.0.0 209.165.200.225 ! </pre>	<pre> interface Tunnel 100 ip address 192.168.100.2 255.255.255.0 keepalive 7 6 tunnel source GigabitEthernet0/1 tunnel destination 209.165.200.226 ! interface GigabitEthernet0/0 ip address 10.2.2.1 255.255.255.0 ! interface GigabitEthernet0/1 ip address 209.165.201.2 255.255.255.252 ! router ospf 200 network 0.0.0.0 255.255.255.255 area 0 ! ip route 0.0.0.0 0.0.0.0 209.165.201.1 ! </pre>
---	---

A network engineer configures a new GRE tunnel and enters the show run command. What does the output verify?

- A. The tunnel keepalive is configured incorrectly because they must match on both sites
- B. The tunnel destination will be known via the tunnel interface
- C. The tunnel will be established and work as expected
- D. The default MTU of the tunnel interface is 1500 byte.

Answer: C

Question 80

Refer to the exhibit.

General Security QoS Policy-Mapping Advanced

Allow AAA Override ☐ Enabled

Coverage Hole Detection ☒ Enabled

Enable Session Timeout ☐

Aironet IE ☐ Enabled

Diagnostic Channel [18](#) ☐ Enabled

Override Interface ACL IPv4 IPv6

Layer2 Acl

URL ACL

P2P Blocking Action

Client Exclusion [3](#) ☐ Enabled

Maximum Allowed Clients [8](#)

Static IP Tunneling [11](#) ☐ Enabled

Wi-Fi Direct Clients Policy

Maximum Allowed Clients Per AP Radio

DHCP

DHCP Server

DHCP Addr. Assignment

OEAP

Split Tunnel

Management Frame P

MFP Client Protection

DTIM Period (in beaco

802.11a/n (1 - 255)

802.11b/g/n (1 - 255)

NAC

NAC State

An engineer has configured Cisco ISE to assign VLANs to clients based on their method of authentication, but this is not working as expected. Which action will resolve this issue?

- A. require a DHCP address assignment
- B. utilize RADIUS profiling
- C. set a NAC state
- D. enable AAA override

Answer: D

Question 81

What is the function of a VTEP in VXLAN?

- A. provide the routing underlay and overlay for VXLAN headers
- B. dynamically discover the location of end hosts in a VXLAN fabric
- C. encapsulate and de-encapsulate traffic into and out of the VXLAN fabric
- D. statically point to end host locations of the VXLAN fabric

Answer: C

Question 82

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

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

Answer: C

Question 83

Drag and drop the snippets onto the blanks within the code to construct a script that advertises the network prefix 192.168.5.0 session. Not all options are used.

```
<config xmlns:xc="urn:ietf:params:xml:ns:netconf:base:1.0" xmlns:xc="urn:ietf:params:xml:ns:netconf:base:1.0">
  <native xmlns="http://cisco.com/ns/yang/Cisco-IOS-XE-native" xmlns:ios-bgp="http://cisco.com/ns/yang/Cisco-IOS-XE-bgp">
    <router>
      <ios-bgp:bgp>
        <ios-bgp:address-family>
          <ios-bgp:no-vrf>
            <ios-bgp:ipv4>
              <ios-bgp:af-name>unicast</ios-bgp:af-name>
              <ios-bgp:ipv4-unicast>
                <ios-bgp:network>
                  <ios-bgp:with-mask>
                    <ios-bgp:number> 1 </ios-bgp:number>
                    <ios-bgp: 2 > 3 </ios-bgp:mask>
                  </ios-bgp:with-mask>
                </ios-bgp:network>
              </ios-bgp:ipv4-unicast>
            </ios-bgp:ipv4>
          </ios-bgp:no-vrf>
        </ios-bgp:address-family>
      </ios-bgp:bgp>
    </router>
  </native>
</config>
```

Options:

- A 192.168.5.0
- B 255.255.255.0
- C mask
- D with-mask
- E subnet-mask

Answer: 1-A; 2-C;3-B

Question 84

How does an on-premises infrastructure compare to a cloud infrastructure?

- A. On-premises can increase compute power faster than cloud
- B. On-premises offers faster deployment than cloud

- C. On-premises offers lower latency for physically adjacent systems than cloud
- D. On-premises requires less power and cooling resources than cloud

Answer: C

Question 85

Which design principle states that a user has no access by default to any resource, and unless a resource is explicitly granted, it should be denied?

- A. complete mediation
- B. least privilege
- C. economy of mechanism
- D. fail-safe defaults

Answer: D

Question 86

Refer to the exhibit.

```
{
  "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
    }
  }
}
```

Drag and drop the snippets into the RESTCONF request to form the request that returns this response. Not all options are used.

URL - http://10.10.10.10/restconf/api/running/native/ **A**

HTTP Verb- **B**

Body- N/A

Headers- **C** -application/vnd.yang.data+json

Authentication-privileged level 15 credentials

POST

Accept

interface/GigabitEthernet/1/

PUT

GET

Cisco-IOS-XE

Answer:

1 – interface/GigabitEthernet/1/

2 – GET

3 – Accept

Question 87

Refer to the exhibit.

Switch1#

*Jun 1 11:13:34.223: %SPANTREE-7-RECV_1Q_NON_TRUNK: Received 802.1Q BPDU on non trunk GigabitEthernet0/0 VLAN1.

*Jun 1 11:13:34.223: %SPANTREE-7-PORT_TYPE: Blocking GigabitEthernet0/0 on VLAN0001. Inconsistent port type.



```
hostname Switch1
!
vtp domain DATACENTER1
!
interface Gi0/0
description TO DC2-Switch2
switchport mode trunk
!
interface Vlan10
description LAN10
ip address 10.0.0.1 255.255.255.0
```

```
hostname Switch2
!
vtp domain DATACENTER2
!
interface Gi0/0
description TO DC1-Switch1
switchport mode dynamic desirable
!
interface Vlan10
description LAN10
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 Switch1 to switch port mode dynamic desirable
- B. Change Switch2 to switch port mode dynamic auto

- C. Change Switch1 to switch port mode dynamic auto
- D. Change the VTP domain to match on both switches

Answer: D

Question 88

Refer to the exhibit.

```
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      Pol(SD)      LACP   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      Pol(SD)      LACP   Gi0/0(I) Gi0/1(I)
```

```
SW2#show run interface
gigabitethernet0/0
Building configuration...
Current configuration: 189 bytes
!
interface GigabitEthernet0/0
switchport trunk encapsulation isl
switchport mode access
switchport nonegotiate
channel-group 1 mode active
end
```

```
SW2#show run interface
gigabitethernet0/1
Building configuration...
Current configuration: 189 bytes
!
interface GigabitEthernet0/1
switchport trunk encapsulation isl
switchport mode trunk
switchport nonegotiate
channel-group 1 mode active
end
```

```
SW3#show run interface
gigabitethernet0/0
Building configuration...
Current configuration: 189 bytes
!
interface GigabitEthernet0/0
switchport trunk encapsulation isl
switchport mode trunk
switchport nonegotiate
channel-group 1 mode passive
end
```

```
SW3#show run interface
gigabitethernet0/1
Building configuration...
Current configuration: 189 bytes
!
interface GigabitEthernet0/1
switchport trunk encapsulation isl
switchport mode trunk
switchport nonegotiate
channel-group 1 mode passive
end
```

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

Answer: C

Question 89

A network administrator applies the following configuration to an IOS device. What is the process of password checks when a login attempt is made to the device?

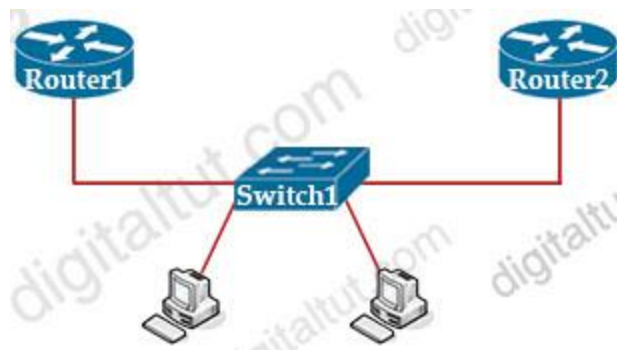
```
aaa new-model  
aaa authentication login default local group tacacs+
```

- 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 RADIUS server is checked.
- D. A local database is checked first. If that check fails, a TACACS+server is checked.

Answer: D

Question 90

Refer to the exhibit.



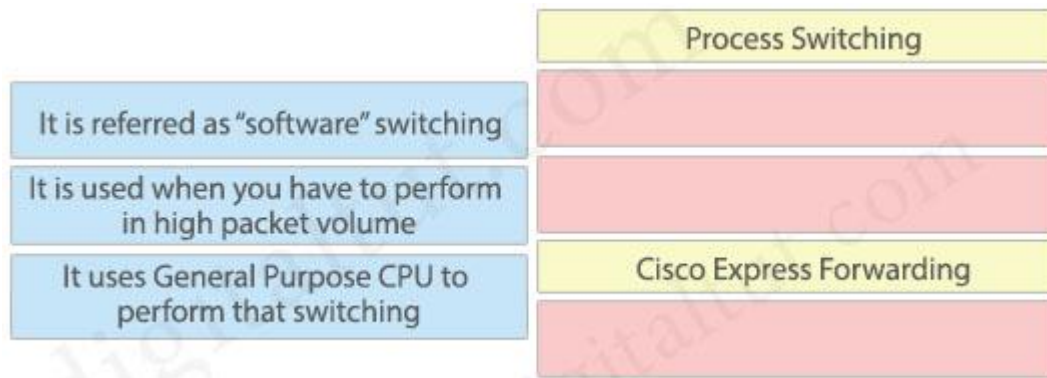
Router 1 is currently operating as the HSRP primary with a priority of 110 router1 fails and Router2 take over the forwarding role. Which command on Router1 causes it to take over the forwarding role when it return to service?

- A. standby 2 priority
- B. standby 2 preempt
- C. standby 2 track
- D. standby 2 timers

Answer: B

Question 91

Drag and drop packet switching architecture from the left onto the correct positions on the right.



Answer:

Process Switching:

- + It is referred as "software" switching
- + It uses General Purpose CPU to perform that switching

Cisco Express Forwarding:

- + It is used when you have to perform in high packet volume

Question 92

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 Gig1/0/20 and Switch2 interface Gig1/0/20. Which configuration fixes the problem?

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

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

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

D. Switch2(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

Answer: A

Question 93

What is the function of vBond in a Cisco SDWAN deployment?

- A. onboarding of SDWAN routers into the SD-WAN overlay
- B. pushing of configuration toward SD-WAN routers
- C. initiating connections with SD-WAN routers automatically
- D. gathering telemetry data from SD-WAN routers

Answer: A

Question 94

What is the difference in dBm when an AP power increases from 25 mW to 100mW?

- A. 75dBm
- B. 150dBm
- C. 6dBm
- D. 125dBm

Answer: C

Question 95

Which free application make REST call against DNA center?

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

Answer: A

New ENCOR Questions 3

Question 1

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?

- 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 1 syslog write "OSPF ROUTING ERROR"

Answer: A

Question 2

Refer to the exhibit.

```
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
```

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

- A. Increase the NAT pool size to support 254 usable addresses
- B. Reconfigure the pool to use the 192.168.1.0 address range
- C. Configure a match-host type NAT pool
- D. Configure a one-to-one type NAT pool

Answer: A

Question 3

A customer has 20 stores located throughout a city. Each store has a single Cisco AP managed by a central WLC. The customer wants to gather analytics for users in each store. Which technique supports these requirements?

- A. hyperlocation
- B. angle of arrival
- C. presence
- D. trilateration

Answer: C

Question 4

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

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

Answer: D

Question 5

A customer has a pair of Cisco 5520 WLCs set up in an SSO cluster to manage all APs. Guest traffic is anchored to a Cisco 3504 WLC located in a DMZ. Which action is needed to ensure that the EoIP tunnel remains in an UP state in the event of failover on the SSO cluster?

- A. Configure back-to-back connectivity on the RP ports
- B. Use the mobility MAC when the mobility peer is configured
- C. Enable default gateway reachability check
- D. Use the same mobility domain on all WLCs

Answer: B

Question 6

In a Cisco DNA Center Plug and Play environment, why would a device be labeled unclaimed?

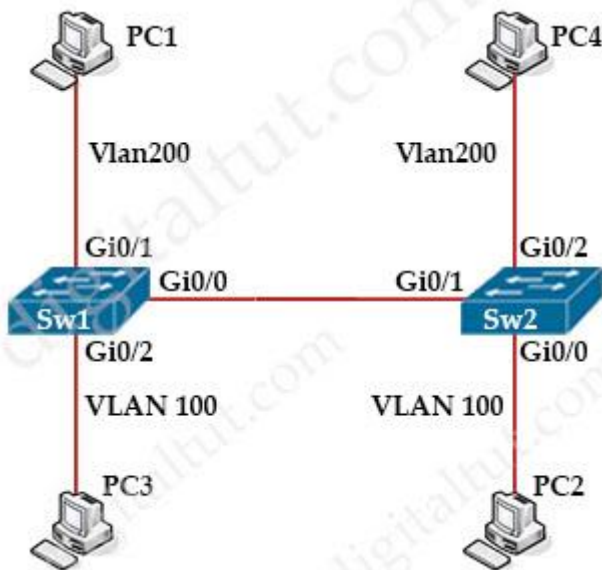
- A. The device has not been assigned a workflow.
- B. The device could not be added to the fabric.

- C. The device had an error and could not be provisioned.
- D. The device is from a third-party vendor.

Answer: A

Question 7

Refer to the exhibit.



```
SW1#show interfaces gigabitethernet0/0 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 gigabitethernet0/1 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---
```

The connection 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 mode dynamic desirable on SW2
- E. configure no switchport nonegotiate on SW1

Answer: D E

Question 8

Refer to the exhibit.

```
R1#show access-list 100
Extended IP access list 100
 10 deny ip any any
 20 permit ip 192.168.0.0 0.0.255.255 any
 30 permit ip any 192.168.0.0 0.0.255.255
```

Option A R1(config)#no access-list 100 deny ip any any	Option B R1(config)#ip access-list extended 100 R1(config-ext-nacl)#5 permit ip any any
Option C R1(config)#ip access-list extended 100 R1(config-ext-nacl)#no 10	Option D R1(config)#no access-list 100 seq 10 R1(config-ext-nacl)#access-list 100 seq 40 deny ip any any

Extended access-list 100 is configured on interface GigabitEthernet0/0 in an inbound direction, but it does not have the expected behavior of allowing only packets to or from 192.168.0.0/16. Which command set properly configures the access list?

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

Answer: C

Question 9

How do 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 have lower upfront costs than on-premises deployments.
- D. Cloud deployments require less frequent upgrades than on-premises deployments.

Answer: C

Question 10

Refer to the exhibit.

```
#!/usr/bin/env python
import json
import sys
```

```
test_json="""
{
    "type": "Cisco ASR 1001-x Router",
    "lastUpdateTime": 144393848493,
    "macAddress": "00:c8:8b:e3:24:22",
    "serialNumber": "FXS1932Q1SE"
}
"""
```

```
print(json.load(test_json))
```

Output

```
$ python printjson.py
```

```
Traceback (most recent call last):
```

```
File "question_3.py", line 15, in <module>
```

```
Print(json.load(test_json))
```

```
File
```

```
"/System/Library/Framework/Python.framework/Versions/2.7/lib/python2.7/json/_init_.py",
line 286 in load return loads(fp.read(),
```

```
AttributeError: str' object has no attribute 'read'
```

An engineer runs the sample code, and the terminal returns this output. Which change to the sample code corrects this issue?

- A. Change the JSON method from load() to loads().
- B. Enclose null in the test_json string in double quotes
- C. Use a single set of double quotes and condense test_json to a single line
- D. Call the read() method explicitly on the test_json string

Answer: A

Question 11

Refer to the exhibit.

```
Switch2#
02:23:22: %PM-4-ERR_DISABLE: channel-misconfig error
detected on Fa0/23, putting Fa0/23 in err-disable state
02:23:22: %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)
```

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 the same port channel interface number on both switches
- B. Configure less member ports on Switch2
- C. Configure more member ports on Switch1
- D. Configure the same EtherChannel protocol on both switches

Answer: D

Question 12

An engineer is concerned with the deployment of a new application that is sensitive to inter-packet delay variance. Which command configures the router to be the destination of jitter measurements?

- A. Router(config)# ip sla responder udp-connect 172.29.139.134 5000
- B. Router(config)# ip sla responder tcp-connect 172.29.139.134 5000
- C. Router(config)# ip sla responder udp-echo 172.29.139.134 5000
- D. Router(config)# ip sla responder tcp-echo 172.29.139.134 5000

Answer: C

Question 13

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

- A. VM configuration file
- B. operating system
- C. disk
- D. applications

Answer: C

Question 14

Which function is handled by vManage in the Cisco SD-WAN fabric?

- A. Establishes IPsec tunnels with nodes
- B. Distributes policies that govern data forwarding
- C. Performs remote software upgrades for WAN Edge, vSmart and vBond
- D. Establishes BFD sessions to test liveliness of links and nodes

Answer: C

Question 15

Refer to the exhibit.

```
switch1(config)# interface GigabitEthernet 1/1
switch1(config-if)# switchport mode trunk
switch1(config-if)# switchport trunk allowed vlan 10,20,30,40,50,60,70-90
switch1(config)# exit
switch1(config)# monitor session 1 source vlan 10
switch1(config)# monitor session 1 destination remote vlan 70

switch2(config)# interface GigabitEthernet 1/1
switch2(config-if)# switchport mode trunk
switch2(config-if)# switchport trunk allowed vlan 10,20,30,40,50,60,80-90
switch2(config)# exit
switch2(config)# monitor session 2 source remote vlan 70
switch2(config)# monitor session 2 destination interface GigabitEthernet1/1
```

A network administrator configured RSPAN to troubleshoot an issue between switch1 and switch2. The switches are connected using interface GigabitEthernet 1/1. An external packet capture device is connected to switch2 interface GigabitEthernet1/2. Which two commands must be added to complete this configuration? (Choose two)

Option A switch1(config)# interface GigabitEthernet 1/1 switch1(config-if)# switchport mode access switch1(config-if)# switchport access vlan 10 switch2(config)# interface GigabitEthernet 1/1 switch2(config-if)# switchport mode access switch2(config-if)# switchport access vlan 10	Option B switch2(config-if)# switchport trunk allowed vlan 10,20,30,40,50,60,70-80
Option C switch2(config)# monitor session 1 source remote vlan 70 switch2(config)# monitor session 1 destination interface GigabitEthernet1/1	Option D switch2(config)# monitor session 2 destination vlan 10
Option E switch2(config)# monitor session 1 source remote vlan 70 switch2(config)# monitor session 1 destination interface GigabitEthernet1/2	

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

Answer: B E

Question 16

Refer to the exhibit.

```
event snmp oid 1.3.6.1.4.1.9.9.109.1.1.1.1.3 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"
```

An engineer must create a script that appends the output of the **show process cpu sorted** command to a file. Which action completes the configuration?

- 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”

Answer: D

Question 17

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"][2]["description"]
u'my description'
```

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

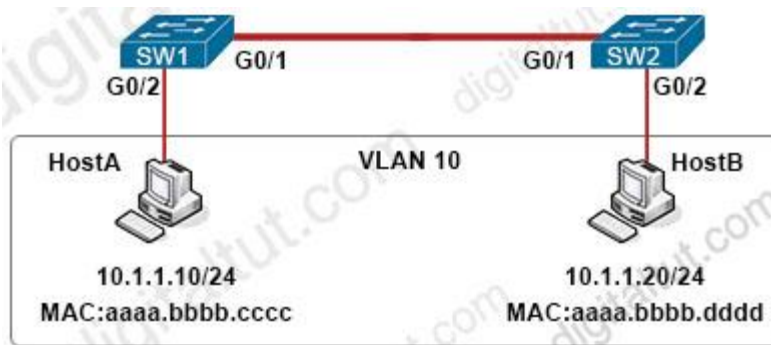
Option A <pre>for interface in netconf_data["GigabitEthernet"]: print(interface["enabled"]) print(interface["description"])</pre>	Option B <pre>for interface in netconf_data["GigabitEthernet"]: if interface["disabled"] != 'true': print(interface["description"])</pre>
Option C <pre>for interface in netconf_data["GigabitEthernet"]: if interface["enabled"] != 'true': print(interface["description"])</pre>	Option D <pre>for interface in netconf_data["GigabitEthernet"]: if interface["enabled"] != 'false': print(interface["description"])</pre>

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

Answer: C

Question 18

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.

```
SW1(config)# ip access-list extended DENY-HTTP
SW1(config-ext-nacl)# ____ (A) ____ 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)# ____ (B) ____ 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)# ____ (C) ____
SW1(config)# vlan access-map HOST-A-B 20
SW1(config-access-map)# match ip address MATCH_ALL
SW1(config-access-map)# ____ (D) ____

SW1(config)# vlan filter HOST-A-B vlan 10
```

- | | | |
|---------------|------------------|----------|
| 1 action drop | 2 action forward | 3 filter |
| 4 match | 5 deny | 6 permit |

Answer: permit, permit, action drop, action forward

Question 19

Which of the following statements regarding BFD are correct? (Choose two)

- A. BFD is supported by OSPF, EIGRP, BGP, and IS-IS.
- B. BFD detects link failures in less than one second.
- C. BFD can bypass a failed peer without relying on a routing protocol.
- D. BFD creates one session per routing protocol per interface.

- E. BFD is supported only on physical interfaces.
- F. BFD consumes more CPU resources than routing protocol timers do.

Answer: A B

Question 20

What is an advantage of using BFD?

- A. It local link failure at layer 1 and updates routing table
- B. It detects local link failure at layer 3 and updates routing protocols
- C. It has sub-second failure detection for layer 1 and layer 3 problems.
- D. It has sub-second failure detection for layer 1 and layer 2 problems.

Answer: B

Question 21

An engineer measures the Wi-Fi coverage at a customer site. The RSSI values are recorded as follows:

Location A: -72 dBm
Location B: -75 dBm
Location C: -65 dBm
Location D: -80 dBm

Which two statements does the engineer use to explain these values to the customer? (Choose two)

- A. The signal strength at location C is too weak to support web surfing
- B. Location D has the strongest RF signal strength
- C. The RF signal strength at location B is 50% weaker than location A
- D. The signal strength at location B is 10 dB better than location C
- E. The RF signal strength at location C is 10 times stronger than location B

Answer: C E

Question 22

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

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

Answer: A C F

Question 23

Which unit is used to express the signal-to-noise ratio?

- A. dBm
- B. dB
- C. amp
- D. mW

Answer: B

Question 24

Refer to the exhibit.

General	Security	QoS	Policy-Mapping	Advanced
Allow AAA Override	☐ Enabled			
Coverage Hole Detection	☒ Enabled			
Enable Session Timeout	☐			
Aironet IE	☐ Enabled			
Diagnostic Channel 18	☐ Enabled			
Override Interface ACL	IPv4 None		IPv6 None	
Layer2 Ad	None			
URL ACL	None			
P2P Blocking Action	Disabled			
Client Exclusion 3	☐ Enabled			
Maximum Allowed Clients 8	0			
Static IP Tunneling 11	☐ Enabled			
Wi-Fi Direct Clients Policy	Disabled			
Maximum Allowed Clients Per AP Radio	200			

DHCP

DHCP Ser

DHCP Add

OEAP

Split Tunn

Management

MFP Client

DTIM Period

802.11a/n

802.11b/g

NAC

NAC State

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

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

Answer: A

Question 25

Which function does a fabric AP perform in a Cisco SD-Access deployment?

- A. It manages wireless clients' membership information in the fabric
- B. It connects wireless clients to the fabric.
- C. It updates wireless clients' locations in the fabric
- D. It configures security policies down to wireless clients in the fabric

Answer: B

Question 26

Which design principle should be followed in a Cisco SD-Access wireless network deployment?

- A. The WLC is part of the fabric overlay
- B. The WLC is part of the fabric underlay
- C. The WLC is connected outside of the fabric
- D. The access point is connected outside of the fabric

Answer: A

Question 27

Refer to the exhibit.

Option A

```
login = dnac_login(dnac["host"], dnac["username"], dnac["password"])

network_device_list(dnac, login)
for item in dnac_devices:
    print(dnac_devices.item)
```

Option B

```
login = dnac_login(dnac["host"], dnac["username"], dnac["password"])
network_device_list(dnac, login)
print(dnac_devices)
```

Option C

```
network_device_list(dnac["host"], dnac["username"], dnac["password"])
login = dnac_login(dnac)
print(dnac_devices)
```

Option D

```
login = dnac_login(dnac["host"], dnac["username"], dnac["password"])

network_device_list(dnac, login)
for item in dnac_devices:
    print(dnac_devices.item)
```

Which code results in the working python script displaying a list of network devices from the Cisco DNA center?

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

Answer: B

Question 28

An engineer is configuring a GRE tunnel interface in the default mode. The engineer has assigned an IPv4 address on the tunnel and sourced the tunnel from an Ethernet interface. Which option also is required on the tunnel interface before it is operational?

- A. (config-if)#**tunnel destination** {ip address}
- B. (config-if)#**keepalive** {seconds retries}
- C. (config-if)#ip mtu {value}
- D. (config-if)#ip tcp adjust-mss {value}

Answer: A

New ENCORA Questions 2

Question 1

Drag and drop the solutions that comprise Cisco Cyber Threat Defense from the left onto the objectives they accomplish on the right.

StealthWatch	detects suspicious web activity
Web Security Appliance	analyzes network behavior and detects anomalies
Identity Services Engine	uses pxGrid to remediate security threats

Answer:

- + detects suspicious web activity: Web Security Appliance
- + analyzes network behavior and detects anomalies: StealthWatch
- + uses pxGrid to remediate security threats: Identity Services Engine

Question 2

What are two characteristics of Cisco SD-Access elements? (Choose two)

- A. Fabric endpoints are connected directly to the border node
- B. The border node is required for communication between fabric and nonfabric devices
- C. The control plane node has the full RLOC-to-EID mapping database
- D. Traffic within the fabric always goes through the control plane node
- E. The border node has the full RLOC-to-EID mapping database

Answer: B C

Question 3

Refer to the exhibit.

```
Current configuration: 142 bytes
vrf definition STAFF
!
!
interface GigabitEthernet1
 vrf forwarding STAFF
 no ip address
 negotiation auto
 no mop enabled
 no mop sysid
end
```

An engineer must assign an IP address of 192.168.1.1/24 to the GigabitEthernet1 interface. Which two commands must be added to the existing configuration to accomplish this task? (Choose two)

- A. Router(config-vrf)#address-family ipv6
- B. Router(config-if)#ip address 192.168.1.1 255.255.255.0
- C. Router(config-vrf)#ip address 192.168.1.1 255.255.255.0
- D. Router(config-if)#address-family ipv4
- E. Router(config-vrf)#address-family ipv4

Answer: B E

Question 4

What is the data policy in a Cisco SD-WAN deployment?

- A. list of ordered statements that define node configurations and authentication used within the SD-WAN overlay
- B. Set of statements that defines how data is forwarded based on IP packet information and specific VPNs
- C. detailed database mapping several kinds of addresses with their corresponding location

D. group of services tested to guarantee devices and links liveliness within the SD-WAN overlay

Answer: B

Question 5

Refer to the exhibit.

```
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	Pol(SD)	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	Pol(SD)	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 5 mode active on both interfaces

Answer: C

Question 6

Refer to the exhibit.

```

No Hellos (Passive interface)
Supports Link-local Signaling (LLS)
! lines omitted for brevity
GigabitEthernet0/1 is up, line protocol is up
Internet Address 72.16.30.1/24, Area 0, Attached via Network Statement
Process ID 1, Router ID 72.16.11.29, Network Type BROADCAST, Cost: 1
Topology-MTID    Cost    Disabled    Shutdown    Topology Name
      0            1        no         no         Base
Transmit Delay is 1 sec, State DR, Priority 1
Designated Router (ID) 172.16.11.29, Interface address 172.16.30.1
No backup designated router on this network
Timer intervals configured, Hello 10, Dead 40, Wait 40, Retransmit 5
  oob-resync timeout 40
No Hellos (Passive interface)
Supports Link-local Signaling (LLS)
! lines omitted for brevity
GigabitEthernet0/0 is up, line protocol is up
Internet Address 72.16.11.29/24, Area 0, Attached via Network Statement
Process ID 1, Router ID 72.16.11.29, Network Type BROADCAST, Cost: 1
Topology-MTID    Cost    Disabled    Shutdown    Topology Name
      0            1        no         no         Base
Transmit Delay is 1 sec, State DROTHER, Priority 1
Designated Router (ID) 172.16.11.27, Interface address 172.16.11.27
Backup Designated router (ID) 172.16.11.30, Interface address 172.16.11.30
Timer intervals configured, Hello 10, Dead 40, Wait 40, Retransmit 5
  oob-resync timeout 40
Hello due in 00:00:07
Supports Link-local Signaling (LLS)
! lines omitted for brevity

```

A network engineer configures OSPF and reviews the router configuration. Which interface or interfaces are able to establish OSPF adjacency?

- A. GigabitEthernet0/1 and GigabitEthernet0/1.40
- B. Gigabit Ethernet0/0 and GigabitEthernet0/1
- C. only GigabitEthernet0/0
- D. only GigabitEthernet0/1

Answer: C

Question 7

Refer to the exhibit.

TYPE	PROT	SYSTEM	IP	ID	ID	PRIVATE IP	PORT	LOCAL	COLOR	PROXY	STATE	UPTIME	PORT
PUBLIC	IP												ID

vsmart	dtls	0.0.0.0		100	1	192.168.100.80							
12346	10.10.20.70					12446	default			No	up		
0:02:24:09	0												
vbond	dtls	0.0.0.0		0	0	192.168.100.81							
12346	10.10.20.80					12346	default			-	up		
0:02:24:10	0												
vmanage	dtls	4.4.4.90		100	0	192.168.100.82							
12446	10.10.20.90					12446	default						

POST

https://192.168.100.80:12442/i_security_check

Send

Params

Authorization

Headers (8)

Body

Pre-request Script

Tests

Settings

none

form-data

x-www-form-urlencoded

raw

binary

GraphQL

KEY	VALUE	DESCRIPTION
☒ i_username	admin	
☒ i_password	admin	
Key	Value	Description

Could not get any response

There was an error connecting to https://192.168.100.80:12442/i_security_check

Why this might have happened:

- The server couldn't send a response: Ensure that the backend is working properly
- Self-signed SSL certificates are being blocked: Fix this by turning off 'SSL certificate verification' in *Settings > General*
- Proxy configured incorrectly: Ensure that proxy is configured correctly in *Settings > Proxy*
- Request timeout: Change request timeout in *Settings > General*

What step resolves the authentication issue?

- A. restart the vsmart host
- B. target 192.168.100.82 in the URI
- C. change the port to 12446
- D. use basic authentication

Answer: B

Question 8

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 Tunnel 100
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@c3nt3r address 209.165.201.1

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

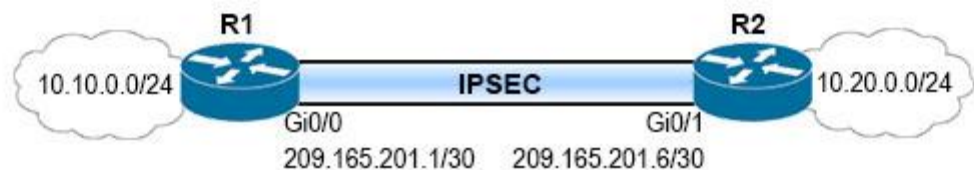
crypto map MAP 10 ipsec-isakmp
set peer 209.165.201.1
set transform-set My_Set
match address 100

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

interface Tunnel 100
ip address 192.168.100.2 255.255.255.0
ip mtu 1400
tunnel source GigabitEthernet0/0
tunnel destination 209.165.201.1

ip route 10.10.0.0 255.255.255.0 192.168.100.1 Tunnel100

```



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. Apply the crypto map to the tunnel interface and change the tunnel mode to tunnel mode ipsec ipv4
- B. Remove all configuration related to crypto map from R1 and R2 and eliminate the ACL 100
- C. Remove the crypto map and modify the ACL to allow traffic between 10.10.0.0/24 to 10.20.0.0/24
- D. Create an IPsec profile, associate the transform-set, and apply the profile to the tunnel interface

Answer: A D

Question 9

Which encryption hashing algorithm does NTP use for authentication?

- A. SSL
- B. AES256
- C. AES128
- D. MD5

Answer: D

Question 10

What is a VPN in a Cisco SD-WAN deployment?

- A. virtual channel used to carry control plane information
- B. attribute to identify a set of services offered in specific places in the SD-WAN fabric
- C. common exchange point between two different services
- D. virtualized environment that provides traffic isolation and segmentation in the SD-WAN fabric

Answer: D

Question 11

Drag and drop the characteristic from the left onto the orchestration tools that they describe on the right.

uses playbooks	Ansible
uses a pull model	
procedural	
declarative	Puppet

Answer:

Ansible:

- + uses playbooks
- + procedural

Puppet:

- + uses a pull model
- + declarative

Question 12

Refer to the exhibit.



```
London(config)#interface fa0/1
London(config-if)#switchport trunk encapsulation dot1q
London(config-if)#switchport mode trunk
```

```
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/1, changed state to down
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/1, changed state to up
```

```
London(config-if)#end
NewYork#show dtp interface fa0/1
DTP information for FastEthernet0/1:
  TOS/TAS/TNS:      ACCESS/AUTO/ACCESS
  TOT/TAT/TNT:      NATIVE/ISL/NATIVE
```

Communication between London and New York is down. Which command set must be applied to resolve this issue?

Option A

```
NewYork(config)#int f0/1
NewYork(config)#switchport nonegotiate
NewYork(config)#end
NewYork#
```

Option B

```
NewYork(config)#int f0/1
NewYork(config)#switchport trunk encap
dot1q
NewYork(config)#end
NewYork#
```

Option C

```
NewYork(config)#int f0/1
NewYork(config)#switchport mode dynamic
desirable
NewYork(config)#end
NewYork#
```

Option D

```
NewYork(config)#int f0/1
NewYork(config)#switchport mode trunk
NewYork(config)#end
NewYork#
```

- A. Option A
- B. Option B

- C. Option C
- D. Option D

Answer: B

Question 13

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

- A. host
- B. virtual machine
- C. container
- D. mainframe

Answer: B

Question 14

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

- A. Reduce AP transmit power
- B. Increase minimum mandatory data rate
- C. Reduce channel width from 40 MHz to 20 MHz
- D. Enable Fastlane
- E. Disable 2.4 GHz and use only 5 GHz

Answer: A B

Question 15

Which data is properly formatted with JSON?

Option A	Option B
<pre>{ "name": "Peter" "age": "25" "likesJson": true "characteristics": ["small", "strong", 18] }</pre>	<pre>{ "name": Peter, "age": 25, "likesJson": true, "characteristics": ["small", "strong", "18"], }</pre>

Option C <pre>{ "name": "Peter", "age": "25", "likesJson": true, "characteristics": ["small", "strong", 18], }</pre>	Option D <pre>{ "name": "Peter", "age": "25", "likesJson": true, "characteristics": ["small", "strong", 18] }</pre>
--	---

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

Answer: D

Question 16

Drag and drop the descriptions of the VSS technology from the left to the right. Not all options are used.

supported on the Cisco 4500 and 6500 series	VSS
combines exactly two devices	
supports devices that are geographically separated	
supported on Cisco 3750 and 3850 devices	
supports up to nine devices	
uses proprietary cabling	

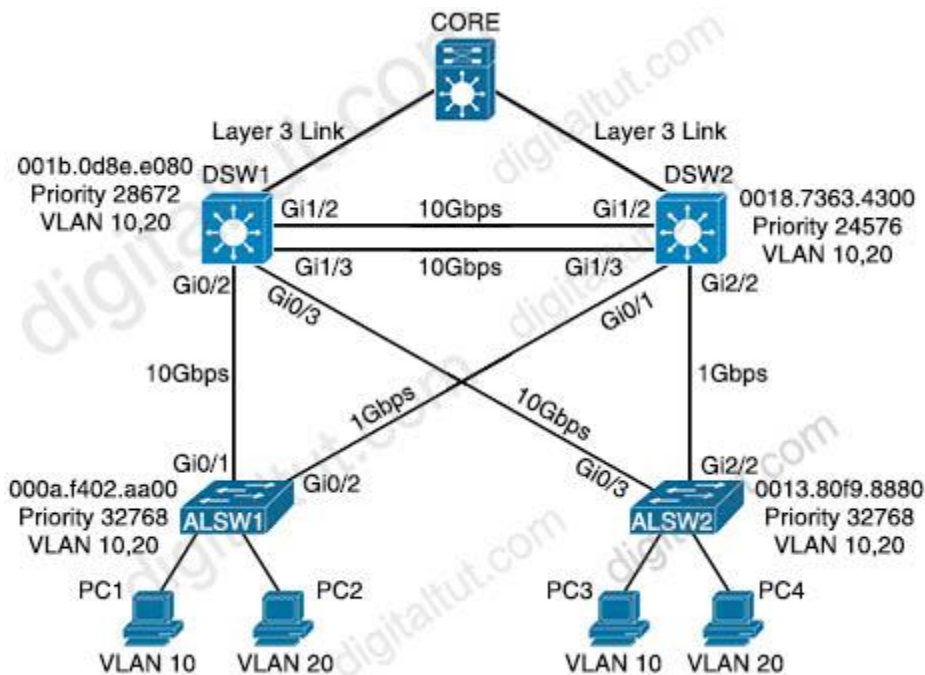
Answer:

VSS:

- + supported on the Cisco 4500 and 6500 series
- + combines exactly two devices
- + supports devices that are geographically separated

Question 17

Refer to the exhibit.



All switches are configured with the default port priority value. Which two commands ensure that traffic from PC1 is forwarded over Gi1/3 trunk port between DWS1 and DSW2? (Choose two)

- A. DWS1(config-if)#spanning-tree port-priority 0
- B. DSW2(config-if)#spanning-tree port-priority 16
- C. DSW1(config-if)#interface gi1/3
- D. DSW2(config-if)#interface gi1/3
- E. DSW2(config-if)#spanning-tree port-priority 128

Answer: B D

Question 18

In a three-tier hierarchical campus network design, which action is a design best-practice for the core layer?

- A. provide QoS prioritization services such as marking, queueing, and classification for critical network traffic
- B. provide advanced network security features such as 802.1X, DHCP snooping, VACLs, and port security
- C. provide redundant Layer 3 point-to-point links between the core devices for more predictable and faster convergence
- D. provide redundant aggregation for access layer devices and first-hop redundancy protocols such as VRRP

Answer: C

Question 19

Which two network problems indicate a need to implement QoS in a campus network?
(Choose two)

- A. port flapping
- B. misrouted network packets
- C. excess jitter
- D. bandwidth-related packet loss
- E. duplicate IP addresses

Answer: C D

Question 20

In a Cisco SD-Access solution, what is the role of the Identity Services Engine?

- A. It provides GUI management and abstraction via apps that share context.
- B. It is leveraged for dynamic endpoint to group mapping and policy definition.
- C. It is used to analyze endpoint to app flows and monitor fabric status.
- D. It manages the LISP EID database.

Answer: B

Question 21

A customer has completed the installation of a Wi-Fi 6 greenfield deployment at their new campus. They want to leverage Wi-Fi 6 enhanced speeds on the trusted employee WLAN. To configure the employee WLAN, which two Layer 2 security policies should be used?
(Choose two)

- A. WPA (AES)
- B. WPA2 (AES) + WEP
- C. 802.1X
- D. OPEN

Answer: C D

Question 22

Which outcome is achieved with this Python code?

```
client.connect (ip, port=22,username=usr,password=pswd)
```

```
stdin,stdout,stderr = client.exec_command('show ip bgp 192.168.10100
bestpath\n')
print(stdout)
```

- A. displays the output of the show command in a formatted way
- B. connects to a Cisco device using SSH and exports the routing table information
- C. connects to a Cisco device using Telnet and exports the routing table information
- D. connects to a Cisco device using SSH and exports the BGP table for the prefix

Answer: D

Question 23

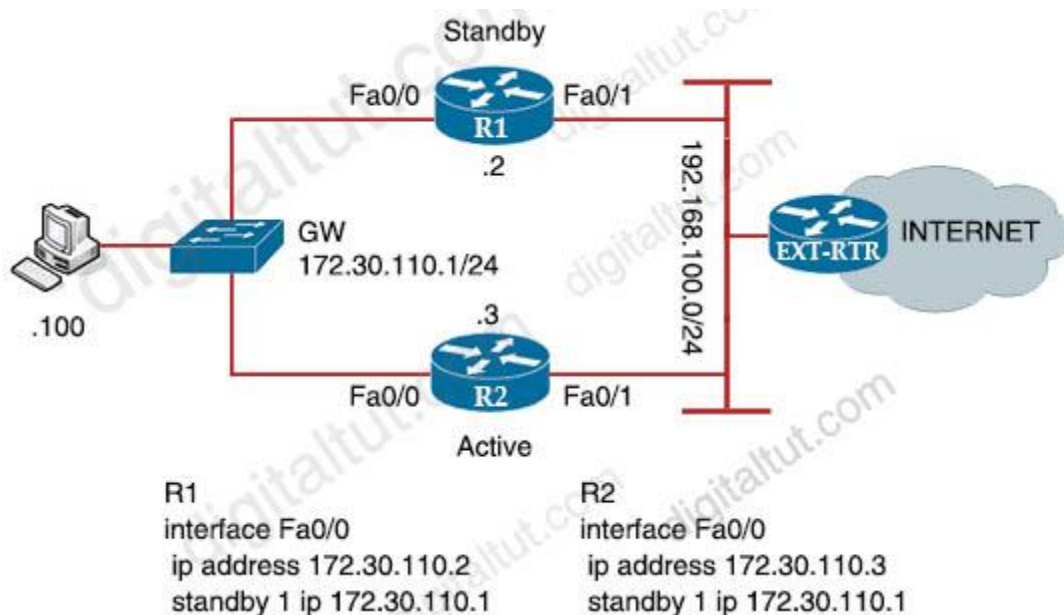
What is YANG used for?

- A. scraping data via CLI
- B. providing a transport for network configuration data between client and server
- C. processing SNMP read-only polls
- D. describing data models

Answer: D

Question 24

Refer to the exhibit.



Which configuration change ensures that R1 is the active gateway whenever it is in a functional state for the 172.30.110.0/24 network?

Option A R1 standby 1 preempt R2 standby 1 priority 90	Option B R1 standby 1 preempt R2 standby 1 priority 100
Option C R2 standby 1 priority 100 standby 1 preempt	Option D R2 standby 1 priority 110 standby 1 preempt

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

Answer: A

Question 25

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?

Option A <pre>{'Person': [{'First Name': 'Johnny', 'Last Name': 'Table', 'Hobbies': ['Running', 'Video games']}, {'First Name': 'Billy', 'Last Name': 'Smith', 'Hobbies': ['Napping', 'Reading']}]}</pre>	Option B <pre>{{{'First Name': 'Johnny', 'Last Name': 'Table', 'Hobbies': 'Running'}, {'Hobbies': 'Video games'}, {'First Name': 'Billy', 'Last Name': 'Smith', 'Hobbies': 'Napping', 'Hobbies': 'Reading'}}}</pre>
Option C <pre>{'Person': [{'First Name': 'Johnny', 'Last Name': 'Table', 'Hobbies':</pre>	Option D <pre>{{{'First Name': 'Johnny', 'Last Name': 'Table', 'Hobbies': ['Running', 'Video games']}, {'First</pre>

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

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

Answer: A

Question 26

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#
```

AAA servers of AAA_RADIUS group	Step 1
tacacs servers of group ACE	Step 2
AAA servers of ACE group	Step 3
local configured username in non-case-sensitive format	Step 4
local configured username in case-sensitive format	
If no method works, then deny login	

Answer:

- Step 1: AAA servers of ACE group
- Step 2: AAA servers of AAA_RADIUS group
- Step 3: local configured username in case-sensitive format
- Step 4: If no method works, then deny login

Question 27

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-VI503-1" (default)
```

Which two facts does the device output confirm? (Choose two)

- A. The device is using the default HSRP hello timer
- B. The standby device is configured with the default HSRP priority
- C. The device's HSRP group uses the virtual IP address 10.0.3.242.
- D. The device is configured with the default HSRP priority
- E. The device sends unicast messages to its peers

Answer: A B

Question 28

Based on the output below, which Python code shows the value of the "upTime" key?

```
{
  "response": [{
    "family": "Routers",
    "type": "Cisco ASR 1001-X Router",
    "errorCode": null,
    "location": null,
    "macAddress": "00:c8:8b:80:bb:00",
    "hostname": "asr1001-x.abc.inc",
    "role": "BORDER ROUTER",
    "lastUpdateTime": 1577391299537,
    "serialNumber": "FXS1932Q1SE",
    "softwareVersion": "16.3.2",
    "locationName": null,
    "upTime": "49 days, 13:43:44:13",
    "lastUpdated": "2019-12-22 16:35:21"
  }]
}
```

Option A <pre>json_data = response.json() print(json_data[response][0][upTime])</pre>	Option B <pre>json_data = response_json() print(json_data['response']['family']['upTime'])</pre>
Option C <pre>json_data = response.json() print(json_data['response'][0]['upTime'])</pre>	Option D <pre>json_data = json.loads(response.text) print(json_data['response']['family']['upTime'])</pre>

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

Answer: C

Question 29

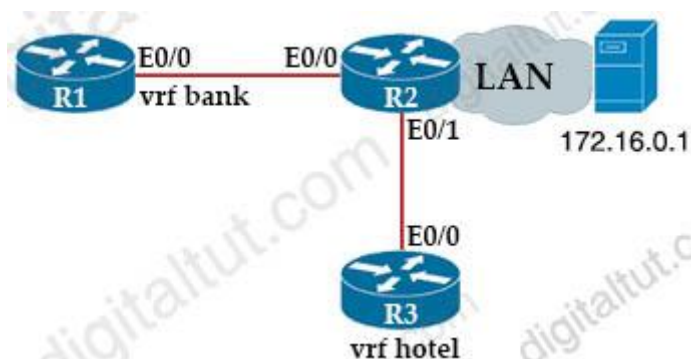
Which two actions, when applied in the LAN network segment, will facilitate Layer 3 CAPWAP discovery for lightweight AP? (Choose two)

- A. Utilize DHCP option 17
- B. Utilize DHCP option 43
- C. Configure WLC IP address on LAN switch
- D. Enable port security on the switch port
- E. Configure an ip helper-address on the router interface

Answer: B E

Question 30

Refer to the exhibit.



R2 :

```
vrf definition hotel
 address-family ipv4
 exit-address-family
```

```

vrf definition bank
  address-family ipv4
  exit-address-family

interface Ethernet0/0
  vrf forwarding bank
  ip address 172.16.0.4 255.255.0.0

interface Ethernet0/1
  vrf forwarding hotel
  ip address 172.1.0.5 255.255.0.0

router ospf 42 vrf bank
  router-id 1.1.1.1
  network 172.16.0.0 0.0.255.255 area 0

router ospf 43 vrf hotel
  router-id 3.3.3.3
  network 172.16.0.0 0.0.255.255 area 0

```

R1:

```

vrf definition bank
!
  address-family ipv4
  exit-address-family

```

Which configuration must be applied to R1 to enable R1 to reach the server at 172.16.0.1?

Option A <pre> interface Ethernet0/0 ip address 172.16.0.7 255.255.0.0 ! router ospf 44 vrf hotel network 172.16.0.0 0.0.255.255 </pre>	Option B <pre> interface Ethernet0/0 vrf forwarding bank ip address 172.16.0.7 255.255.0.0 ! router ospf 44 vrf bank network 172.16.0.0 0.0.255.255 area 0 </pre>
Option C <pre> interface Ethernet0/0 vrf forwarding hotel ip address 172.16.0.7 255.255.0.0 ! router ospf 44 vrf hotel network 172.16.0.0 0.0.255.255 area 0 </pre>	Option D <pre> interface Ethernet0/0 ip address 172.16.0.7 255.255.0.0 ! router ospf 44 vrf bank network 172.16.0.0 255.255.0.0 </pre>

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

Answer: B

Question 31

The following system log message is presented after a network administrator configures a GRE tunnel:

%TUN-RECURDOWN: Interface Tunnel 0 temporarily disabled due to recursive routing.

Why is Tunnel 0 disabled?

- A. Because the tunnel cannot reach its tunnel destination
- B. Because the best path to the tunnel destination is through the tunnel itself
- C. Because dynamic routing is not enabled
- D. Because the router cannot recursively identify its egress forwarding interface

Answer: B

Question 32

What is provided by the Stealthwatch component of the Cisco Cyber Threat Defense solution?

- A. real-time threat management to stop DDoS attacks to the core and access networks
- B. real-time awareness of users, devices and traffic on the network
- C. malware control
- D. dynamic threat control for web traffic

Answer: B

Question 33

How does Protocol Independent Multicast function?

- A. It uses unicast routing information to perform the multicast forwarding function.
- B. It uses the multicast routing table to perform the multicast forwarding function.
- C. In sparse mode it establishes neighbor adjacencies and sends hello messages at 5-second intervals.
- D. It uses broadcast routing information to perform the multicast forwarding function.

Answer: A

Question 34

Under which network conditions is an outbound QoS policy that is applied on a router WAN interface most beneficial?

- A. under all network conditions
- B. under network convergence conditions
- C. under interface saturation conditions
- D. under traffic classification and marking conditions

Answer: C

Question 35

Which technology does VXLAN use to provide segmentation for Layer 2 and Layer 3 traffic?

- A. bridge domain
- B. VLAN
- C. VRF
- D. VNI

Answer: D

Question 36

A company has an existing Cisco 5520 HA cluster using SSO. An engineer deploys a new single Cisco Catalyst 9800 WLC to test new features. The engineer successfully configures a mobility tunnel between the 5520 cluster and 9800 WLC. Clients connected to the corporate WLAN roam seamlessly between access points on the 5520 and 9800 WLC. After a failure on the primary 5520 WLC, all WLAN services remain functional; however clients cannot roam between the 5520 and 9800 controllers without dropping their connection. Which feature must be configured to remedy the issue?

- A. mobility MAC on the 5520 cluster
- B. mobility MAC on the 9800 WLC
- C. new mobility on the 5520 cluster
- D. new mobility on the 9800 WLC

Answer: B

Question 37

What are two methods of ensuring that the multicast RPF check passes without changing the unicast routing table? (Choose two)

- A. disabling BGP routing protocol
- B. implementing static mroutes
- C. disabling the interface of the router back to the multicast source

- D. implementing MBGP
- E. implementing OSPF routing protocol

Answer: B D

Question 38

What is the result when an active route processor fails in a design that combines NSF with SSO?

- A. An NSF-aware device immediately updates the standby route processor RIB without churning the network
- B. The standby route processor temporarily forwards packets until route convergence is complete
- C. An NSF-capable device immediately updates the standby route processor RIB without churning the network
- D. The standby route processor immediately takes control and forwards packets along known routes

Answer: B

Question 39

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

- A. Deploying a virtual machine is technically less complex than deploying a physical server.
- 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. Multiple virtual servers can be deployed on the same physical server without having to buy additional hardware.

Answer: D

Question 40

What is the wireless received signal strength indicator?

- A. The value of how strong the wireless signal is leaving the antenna using transmit power, cable loss, and antenna gain
- B. The value given to the strength of the wireless signal received compared to the noise level
- C. The value of how much wireless signal is lost over a defined amount of distance
- D. The value of how strong a wireless signal is receded, measured in dBm

Answer: D

Question 41

Which controller is capable of acting as a STUN server during the onboarding process of Edge devices?

- A. vManage
- B. vSmart
- C. vBond
- D. PNP server

Answer: C

Question 42

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

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

Answer: A

Question 43

What are two features of NetFlow flow monitoring? (Choose two)

- A. Can track ingress and egress information
- B. Include the flow record and the flow importer
- C. Copies all ingress flow information to an interface
- D. Does not required packet sampling on interfaces
- E. Can be used to track multicast, MPLS, or bridged traffic

Answer: A E

Question 44

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. Reset the host
- C. Reset the VM
- D. Live migrate the VM to another host

Answer: A

Question 45

What is the recommended MTU size for a Cisco SD-Access Fabric?

- A. 4464
- B. 9100
- C. 1500
- D. 17914

Answer: B

Question 46

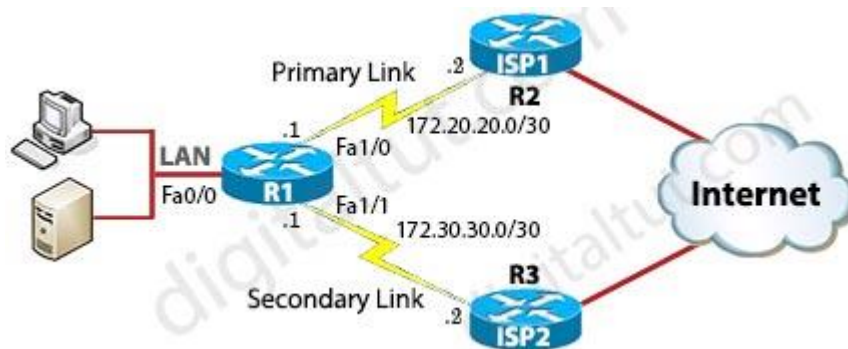
What does the number in an NTP stratum level represent?

- A. The number of hops it takes to reach the master time server.
- B. The amount of drift between the device clock and true time.
- C. The amount of offset between the device clock and true time.
- D. The number of hops it takes to reach the authoritative time source.

Answer: D

Question 47

Refer to the exhibit.



```

R1(config)#ip sla 1
R1(config-ip-sla)#icmp-echo 172.20.20.2 source-interface FastEthernet1/0
R1(config-ip-sla-echo)#timeout 5000
R1(config-ip-sla-echo)#frequency 10
R1(config-ip-sla-echo)#threshold 500
R1(config)#ip sla schedule 1 start-time now life forever
R1(config)#track 10 ip sla 1 reachability
R1(config)#ip route 0.0.0.0 0.0.0.0 172.20.20.2

```

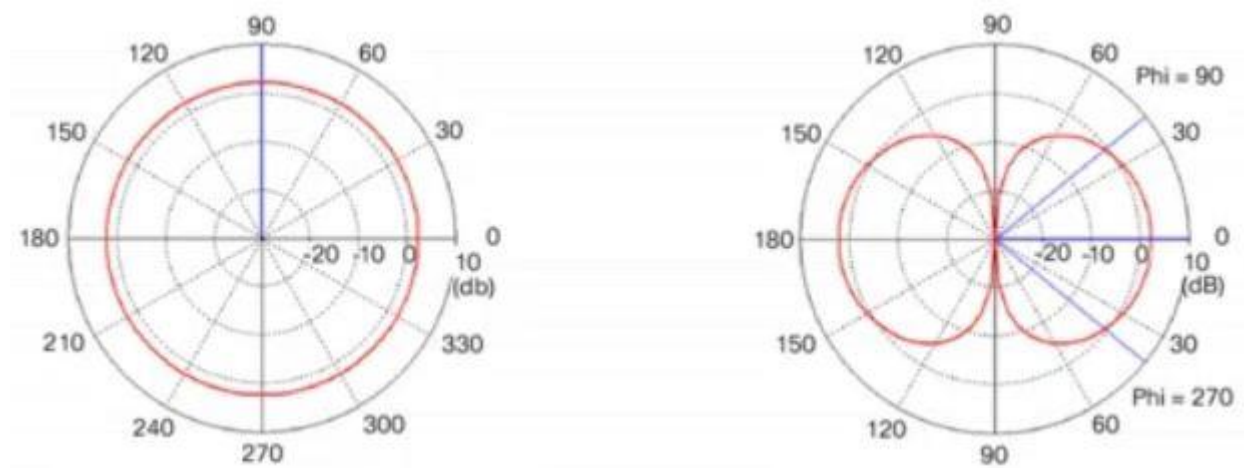
After implementing the configuration 172.20.20.2 stops replying to ICMP echoes, but the default route fails to be removed. What is the reason for this behavior?

- 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

Answer: C

Question 48

Refer to the exhibit.



Which type of antenna is shown on the radiation patterns?

- A. Dipole
- B. Yagi
- C. Patch
- D. Omnidirectional

Answer: A

Question 49

Drag and drop characteristics of PIM dense mode from the left to the right.

	PIM Dense mode
requires a rendezvous point to deliver multicast traffic	
builds source-based distribution trees	
uses a pull model to distribute multicast traffic	
uses a push model to distribute multicast traffic	
uses prune mechanisms to stop unwanted multicast traffic	
builds shared distribution trees	

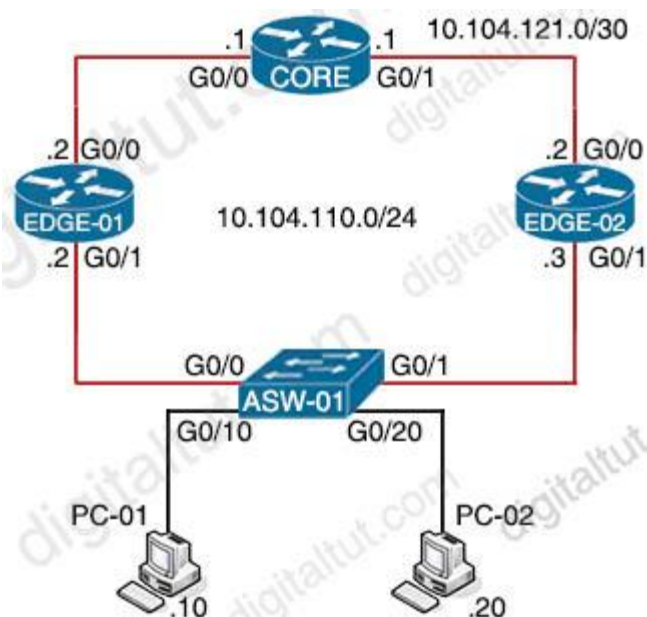
Answer:

PIM Dense Mode:

- + builds source-based distribution trees
- + uses a push model to distribute multicast traffic
- + uses prune mechanisms to stop unwanted multicast traffic

Question 50

Refer to the exhibit.



Edge-01 track 10 interface GigabitEthernet0/0 line-protocol ! interface GigabitEthernet0/1 ip address 10.104.110.2 255.255.255.0 vrrp 10 ip 10.104.110.100 vrrp 10 priority 120	Edge-02 interface GigabitEthernet0/1 ip address 10.104.110.3 255.255.255.0 vrrp 10 ip 10.104.110.100
--	--

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?

Option A Edge-01(config)#interface G0/1 Edge-01(config-if)#vrrp 10 track 10 decrement 10	Option B Edge-02(config)#interface G0/1 Edge-02(config-if)#vrrp 10 track 10 decrement 30
Option C Edge-02(config)#interface G0/1 Edge-02(config-if)#vrrp 10 track 10 decrement 10	Option D Edge-01(config)#interface G0/1 Edge-01(config-if)#vrrp 10 track 10 decrement 30

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

Answer: D

Question 51

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

- A. IKE
- B. DTLS
- C. IPsec
- D. ESP

Answer: B

Question 52

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 GigabitEthernet0/0/0
 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.

Answer: A

Question 53

When does a stack master lose its role?

- A. When the priority value of a stack member is changed to a higher value
- B. When a switch with a higher priority is added to the stack
- C. When the stack master is reset
- D. When a stack member fails

Answer: C

Question 54

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. dBi
- B. mW

- C. dBm
- D. EIRP

Answer: D

New ENCOR Questions

Question 1

After a redundant route processor failure occurs on a Layer 3 device, which mechanism allows for packets to be forwarded from a neighboring router based on the most recent tables?

- A. RPVST+
- B. RP failover
- C. BFD
- D. NSF

Answer: D

Question 2

What are the differences between TCAM and the MAC address table?

- A. Router prefix lookups happen in CAM. MAC address table lookups happen in TCAM
- B. The MAC address table supports partial matches. TCAM requires an exact match
- C. The MAC address table is contained in CAM. ACL and QoS information is stored in TCAM
- D. TCAM is used to make Layer 2 forwarding decisions. CAM is used to build routing tables

Answer: C

Question 3

Which two southbound interfaces originate from Cisco DNA Center and terminate at fabric underlay switches? (Choose two)

- A. UDP 67: DHCP
- B. ICMP: Discovery
- C. TCP 23: Telnet
- D. UDP 162: SNMP
- E. UDP 6007: NetFlow

Answer: B C

Question 4

What is the function of a control-plane node in a Cisco SD-Access solution?

- A. to connect APs and wireless endpoints to the SD-Access fabric
- B. to connect external Layer 3 networks to the SD Access fabric
- C. to implement policies and communicate with networks outside the fabric
- D. to run a mapping system that manages endpoint to network device relationships

Answer: D

Question 5

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

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 sec
```

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)

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

Answer: B

Question 6

What is a characteristic of a next-generation firewall?

- A. required in each layer of the network
- B. filters traffic using Layer 3 and Layer 4 information only
- C. only required at the network perimeter
- D. provides intrusion prevention

Answer: D

Question 7

Which measure is used by an NTP server to indicate its closeness to the authoritative time source?

- A. stratum
- B. hop count
- C. time zone
- D. latency

Answer: A

Question 8

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. Users lose connectivity
- D. Cisco DNA Center is unable to collect monitoring data in Assurance
- E. User connectivity is unaffected

Answer: D E

Question 9

Which two components are supported by LISP? (Choose two)

- A. proxy ETR
- B. HMAC algorithm
- C. route reflector
- D. egress tunnel router
- E. spoke

Answer: A D

Question 10

Drag and drop the virtual component from the left onto their descriptions on the right.

VMDK	configuration file containing settings for a virtual machine such as guest OS
vNIC	component of a virtual machine responsible for sending packets to the hypervisor
VMX	zip file containing a virtual machine configuration file and a virtual disk
OVA	file containing a virtual machine disk drive

Answer:

- + 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: vNIC
- + zip file containing a virtual machine configuration file and a virtual disk: OVA
- + file containing a virtual machine disk drive: VMDK

Question 11

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

Answer: B

Question 12

Refer to the exhibit.

```
DSW2#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.0d8e.e080
  Hello Time 2 sec Max Age 20 sec
        Forward Delay 15 sec
    Aging Time 300 sec

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 PVST
- C. The spanning-tree operation mode for this switch is IEEE
- D. The spanning-tree operation mode for this switch is PVST+

Answer: D

Question 13

A customer has recently implemented a new wireless infrastructure using WLC-5520S at a site directly next to a large commercial airport. Users report that they intermittently lose Wi-Fi connectivity, and troubleshooting reveals it is due to frequent channel changes. Which two actions fix this issue? (Choose two)

- A. Remove UNII-2 and Extended UNII-2 channels from the 5 GHz channel list
- B. Restore the DCA default settings because this automatically avoids channel interference
- C. Disable DFS channels to prevent interference with Doppler radar
- D. Enable DFS channels because they are immune to radar interference
- E. Configure channels on the UNII-2 and the Extended UNII-2 sub-bands of the 5 GHz band only

Answer: A C

Question 14

What is a characteristic of para-virtualization?

- A. Para-virtualization guest servers are unaware of one another
- B. Para-virtualization allows direct access between the guest OS and the hypervisor
- C. Para-virtualization lacks support for containers
- D. Para-virtualization allows the host hardware to be directly accessed

Answer: B

Question 15

Drag and drop the characteristics from the left onto the QoS components they describe on the right.

applied on traffic to convey information to a downstream device	marking
permits traffic to pass through the device while retaining DSCP/COS value	shaping
process used to buffer traffic that exceeds a predefined rate	classification
distinguishes traffic types	trust

Answer:

- + marking: applied on traffic to convey information to a downstream device
- + shaping: process used to buffer traffic that exceeds a predefined rate
- + classification: distinguishes traffic types
- + trust: permits traffic to pass through the device while retaining DSCP/COS value

Question 16

A customer requests a network design that supports these requirements:

- * FHRP redundancy
- * multivendor router environment
- * IPv4 and IPv6 hosts

Which protocol does the design include?

- A. GLBP
- B. VRRP version 2

- C. VRRP version 3
- D. HSRP version 2

Answer: C

Question 17

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 happens to access interfaces where VLAN 222 is assigned?

- A. They are placed into an inactive state
- B. A description “RSPAN” is added
- C. STP BPDU guard is enabled
- D. They cannot provide PoE

Answer: A

Question 18

Which solution do IaaS service providers use to extend a Layer 2 segment across a Layer 3 network?

- A. VXLAN
- B. VTEP
- C. VLAN
- D. VRF

Answer: A

Question 19

What is a characteristic of MACsec?

- A. 802.1AE provides encryption and authentication services
- B. 802.1AE is built 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 built 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

Answer: B

Question 20

Which unit measures the power of a radio signal with reference to 1 milliwatt?

- A. dBw
- B. dBi
- C. mW
- D. dBm

Answer: D

Architecture Questions

<https://www.digitaltut.com/architecture-questions>

Question 1

A company plans to implement intent-based networking in its campus infrastructure. Which design facilitates 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

Answer: C

Question 2

Which benefit is offered by a cloud infrastructure deployment but is lacking in an on-premises deployment?

- A. efficient scalability
- B. virtualization

- C. storage capacity
- D. supported systems

Answer: A

Question 3

What is a benefit of deploying an on-premises infrastructure versus a cloud infrastructure deployment?

- A. faster deployment times because additional infrastructure does not need to be purchased
- B. lower latency between systems that are physically located near each other
- C. less power and cooling resources needed to run infrastructure on-premises
- D. ability to quickly increase compute power without the need to install additional hardware

Answer: B

Question 4

What are two reasons a company would choose a cloud deployment over an on-prem deployment? (Choose two)

- A. Cloud deployments require long implementation times due to capital expenditure processes. OnPrem deployments can be accomplished quickly using operational expenditure processes
- B. Cloud costs adjust up or down depending on the amount of resources consumed. On- Prem costs for hardware, power, and space are ongoing regardless of usage
- C. In a cloud environment, the company controls technical issues. On-prem environments rely on the service provider to resolve technical issue
- D. Cloud resources scale automatically to an increase in demand. On-prem requires additional capital expenditure
- E. In a cloud environment, the company is in full control of access to their data. On-prem risks access to data due to service provider outages

Answer: B D

Question 5

In a Cisco Catalyst switch equipped with two supervisor modules an administrator must temporally remove the active supervisor from the chassis to perform hardware maintenance on it. Which mechanism ensure that the active supervisor removal is not disruptive to the network operation?

- A. NSF/NSR
- B. SSO
- C. HSRP
- D. VRRP

Answer: B

Etherchannel Questions

<https://www.digitaltut.com/etherchannel-questions>

Question 1

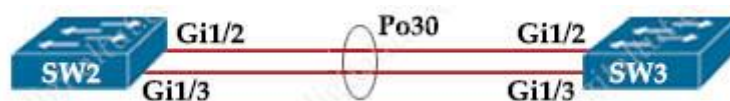
Which PAgP mode combination prevents an Etherchannel from forming?

- A. auto/auto
- B. desirable/desirable
- C. auto/desirable
- D. desirable

Answer: A

Question 2

Refer to the exhibit. A port channel is configured between SW2 and SW3. SW2 is not running Cisco operating system. When all physical connections are made, the port channel does not establish. Based on the configuration excerpt of SW3, what is the cause of the problem?



```
interface gi1/2
 channel-group 30 mode desirable
 port-channel load-balance src-ip

interface gi1/3
 channel-group 30 mode desirable
 port-channel load-balance src-ip

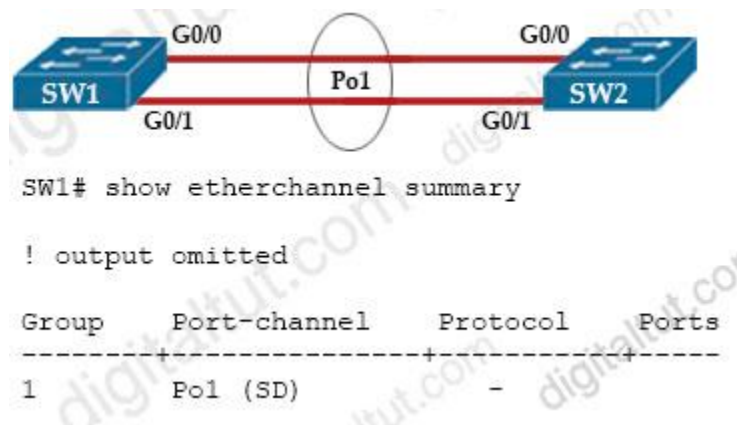
interface PortChannel 30
 switchport mode trunk
 switchport encapsulation dot1q
 switchport trunk allowed vlan 10-100
```

- A. The port channel on SW2 is using an incompatible protocol
- B. The port-channel trunk is not allowing the native VLAN
- C. The port-channel should be set to auto
- D. The port-channel interface load balance should be set to src-mac

Answer: A

Question 3

Refer to the exhibit.



```

SW2#
08:33:23: %PM-4-ERR_DISABLE: channel-misconfig error detection on Gi0/0, putting
Gi0/0 in err-disable state
08:33:23: %PM-4-ERR_DISABLE: channel-misconfig error detection on Gi0/1, putting
Gi0/1 in err-disable state
  
```

After an engineer configures an EtherChannel between switch SW1 and switch SW2, this error message is logged on switch SW2. 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. Correct 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.

Answer: A

Trunking Questions

<https://www.digitaltut.com/trunking-questions>

Question 1

Refer to exhibit. VLANs 50 and 60 exist on the trunk links between all switches. All access ports on SW3 are configured for VLAN 50 and SW1 is the VTP server. Which command ensures that SW3 receives frames only from VLAN 50?



- A. SW1(config)#vtp pruning
- B. SW3(config)#vtp mode transparent
- C. SW2(config)#vtp pruning
- D. SW1(config)>vtp mode transparent

Answer: A

Question 2

Refer to the exhibit. 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?

```
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             : MyDomain.com
VTP Pruning Mode            : Disabled
VTP V2 Mode                 : Disabled
VTP Traps Generation        : Disabled
MD5 digest                  : 0xCC 0x77 0x02 0x40 0x93 0xB5 0xC1 0xA2
Configuration last modified by 0.0.0.0 at 3-1-93 00:00:00
```

```
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
```

```
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

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

- 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

Answer: D

Question 3

Refer to the exhibit.



Company policy restricts VLAN 10 to be allowed only on SW1 and SW2. All other VLANs can be on all three switches. An administrator has noticed that VLAN 10 has propagated to SW3. Which configuration corrects the issue?

- A.
SW2(config)#interface gi1/2
SW2(config)#switchport trunk allowed vlan 10
- B.
SW1(config)#interface gi1/1
SW1(config)#switchport trunk allowed vlan 1-9,11-4094
- C.
SW2(config)#interface gi1/1
SW2(config)#switchport trunk allowed vlan 10

D.
SW2(config)#interface gi1/2
SW2(config)#switchport trunk allowed vlan 1-9,11-4094

Answer: D

SD-WAN & SD-Access Solutions

<https://www.digitaltut.com/sd-wan-sd-access-solutions>

Question 1

Which function does a fabric edge node perform in an SD-Access deployment?

- A. Connects the SD-Access fabric to another fabric or external Layer 3 networks
- B. Connects endpoints to the fabric and forwards their traffic
- C. Provides reachability border nodes in the fabric underlay
- D. Encapsulates end-user data traffic into LISP.

Answer: B

Question 2

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

- A. onboard vEdge nodes into the SD-WAN fabric
- B. distribute security information for tunnel establishment between vEdge routers
- C. manage, maintain, and gather configuration and status for nodes within the SD-WAN fabric
- D. gather telemetry data from vEdge routers

Answer: B

Question 3

Which statement about a Cisco APIC controller versus a more traditional SDN controller is true?

- A. APIC uses a policy agent to translate policies into instructions
- B. APIC supports OpFlex as a Northbound protocol
- C. APIC does support a Southbound REST API
- D. APIC uses an imperative model

Answer: A

Question 4

What the role of a fusion in an SD-Access solution?

- A. provides connectivity to external networks
- B. acts as a DNS server
- C. performs route leaking between user-defined virtual networks and shared services
- D. provides additional forwarding capacity to the fabric

Answer: C

Question 5

Which statement about a fabric access point is true?

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

Answer: C

Question 6

On which protocol or technology is the fabric data plane based in Cisco SD-Access fabric?

- A. LISP
- B. IS-IS
- C. Cisco TrustSec
- D. VXLAN

Answer: D

Question 7

Which description of an SD-Access wireless network infrastructure deployment is true?

- A. The access point is part of the fabric underlay
- B. The WLC is part of the fabric underlay

- C. The access point is part the fabric overlay
- D. The wireless client is part of the fabric overlay

Answer: C

Question 8

Which controller is the single plane of management for Cisco SD-WAN?

- A. vBond
- B. vEdge
- C. vSmart
- D. vManage

Answer: D

Question 9

When a wired client connects to an edge switch in an SDA fabric, which component decides whether the client has access to the network?

- A. control-plane node
- B. Identity Service Engine
- C. RADIUS server
- D. edge node

Answer: B

Question 10

What are two device roles in Cisco SD-Access fabric? (Choose two)

- A. core switch
- B. vBond controller
- C. edge node
- D. access switch
- E. border node

Answer: C E

SD-WAN & SD-Access Solutions 2

<https://www.digitaltut.com/sd-wan-sd-access-solutions-2>

Question 1

Which component handles the orchestration plane of the Cisco SD-WAN?

- A. vBond
- B. vSmart
- C. vManage
- D. vEdge

Answer: A

Question 2

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

Answer: B

Question 3

What is the role of the vsmart controller in a Cisco SD-WAN 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.

Answer: B

Question 4

In a Cisco SD-WAN solution, how is the health of a data plane tunnel monitored?

- A. with IP SLA
- B. ARP probing
- C. using BFD
- D. with OMP

Answer: C

Question 5

Which technology is used to provide Layer 2 and Layer 3 logical networks in the Cisco SD-Access architecture?

- A. underlay network
- B. overlay network
- C. VPN routing/forwarding
- D. easy virtual network

Answer: B

Question 6

In an SD-WAN deployment, which action in the vSmart controller responsible for?

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

Answer: D

Question 7

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

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

Answer: A

Question 8

What is one fact about Cisco SD-Access wireless network deployments?

- A. The access point is part of the fabric underlay
- B. The WLC is part of the fabric underlay
- C. The access point is part the fabric overlay
- D. The wireless client is part of the fabric overlay

Answer: C

Question 9

What is the function of the fabric control plane node in a Cisco SD-Access deployment?

- A. It is responsible for policy application and network segmentation in the fabric.
- B. It performs traffic encapsulation and security profiles enforcement in the fabric.
- C. It holds a comprehensive database that tracks endpoints and networks in the fabric.
- D. It provides integration with legacy nonfabric-enabled environments.

Answer: C

Question 10

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

Answer: A

SD-WAN & SD-Access Solutions 3

<https://www.digitaltut.com/sd-wan-sd-access-solutions-3>

Question 1

Which control plane protocol is used between Cisco SD-WAN routers and vSmart controllers?

- A. BGP
- B. OMP
- C. TCP
- D. UDP

Answer: B

Question 2

In a wireless Cisco SD-Access deployment, which roaming method is used when a user moves from one access point to another on a different access switch using a single WLC?

- A. Layer 3
- B. inter-xTR
- C. auto anchor
- D. fast roam

Answer: B

Question 3

Which protocol is responsible for data plane forwarding in a Cisco SD-Access deployment?

- A. VXLAN
- B. IS-IS
- C. OSPF
- D. LISP

Answer: A

Question 4

Which tunneling technique is used when designing a Cisco SD-Access fabric data plane?

- A. VXLAN
- B. VRF Lite
- C. VRF
- D. LISP

Answer: A

QoS Questions

<https://www.digitaltut.com/qos-questions>

Question 1

Which statement about the default QoS configuration on a Cisco switch is true?

- A. All traffic is sent through four egress queues
- B. Port trust is enabled
- C. The Port Cos value is 0
- D. The Cos value of each tagged packet is modified

Answer: C

Question 2

Which QoS mechanism will prevent a decrease in TCP performance?

- A. Shaper
- B. Policer
- C. WRED
- D. Rate-Limit
- E. LLQ
- F. Fair-Queue

Answer: C

Question 3

Which QoS component alters a packet to change the way that traffic is treated in the network?

- A. Marking
- B. Classification
- C. Shaping
- D. Policing

Answer: A

Question 4

Which marking field is used only as an internal marking within a router?

- A. QOS Group
- B. Discard Eligibility
- C. IP Precedence
- D. MPLS Experimental

Answer: A

Question 5

How does QoS traffic shaping alleviate network congestion?

- A. It drops packets when traffic exceeds a certain bitrate.
- B. It buffers and queue packets above the committed rate.
- C. It fragments large packets and queues them for delivery.
- D. It drops packets randomly from lower priority queues.

Answer: B

Question 6

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

Answer: C E

Question 7

During deployment, a network engineer notices that voice traffic is not being tagged correctly as it traverses the network. Which COS to DSCP map must be modified to ensure that voice traffic is treated properly?

- A. COS of 5 to DSCP 46
- B. COS of 7 to DSCP 48
- C. COS of 6 to DSCP 46
- D. COS of 3 to DSCP of 26

Answer: A

Question 8

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

Answer: C

Switching Mechanism Questions

<https://www.digitaltut.com/switching-mechanism-questions>

Question 1

Which statement about Cisco Express Forwarding is true?

- A. It uses a fast cache that is maintained in a router data plane
- B. It maintains two tables in the data plane the FIB and adjacency table
- C. It makes forwarding decisions by a process that is scheduled through the IOS scheduler
- D. The CPU of a router becomes directly involved with packet-switching decisions

Answer: B

Question 2

Which two statements about Cisco Express Forwarding load balancing are true? (Choose two)

- A. Cisco Express Forwarding can load-balance over a maximum of two destinations
- B. It combines the source IP address subnet mask to create a hash for each destination
- C. Each hash maps directly to a single entry in the RIB
- D. Each hash maps directly to a single entry in the adjacency table
- E. It combines the source and destination IP addresses to create a hash for each destination

Answer: D E

Question 3

How are the Cisco Express Forwarding table and the FIB related to each other?

- A. The FIB is used to populate the Cisco Express Forwarding table
- B. The Cisco Express Forwarding table allows route lookups to be forwarded to the route processor for processing before they are sent to the FIB
- C. There can be only one FIB but multiple Cisco Express Forwarding tables on IOS devices

D. Cisco Express Forwarding uses a FIB to make IP destination prefix-based switching decisions

Answer: D

Question 4

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

Answer: D

Question 5

How does the RIB differ from the FIB?

- A. The RIB includes many routes to the same destination prefix. The FIB contains only the best route.
- B. The FIB maintains network topologies and routing tables. The RIB is a list of routes to particular network destinations.
- C. The RIB is used to create network topologies and routing tables. The FIB is a list of routes to particular network destinations.
- D. The FIB includes many routes a single destination. The RIB is the best route to a single destination.

Answer: C

Question 6

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.

Answer: C

Question 7

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.

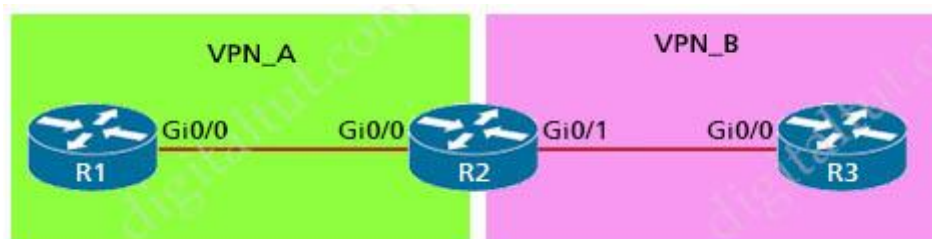
Answer: B E

Virtualization Questions

<https://www.digitaltut.com/virtualization-questions>

Question 1

Refer to the exhibit. Assuming that R1 is a CE router, which VRF is assigned to Gi0/0 on R1?



- A. VRF VPN_B
- B. Default VRF
- C. Management VRF
- D. VRF VPN_A

Answer: B

Question 2

Which statement about route targets is true when using VRF-Lite?

- A. When BGP is configured, route targets are transmitted as BGP standard communities
- B. Route targets control the import and export of routes into a customer routing table

- C. Route targets allow customers to be assigned overlapping addresses
- D. Route targets uniquely identify the customer routing table

Answer: B

Question 3

Which two statements about VRF-lite are true? (Choose two)

- A. It can increase the packet switching rate
- B. It supports most routing protocols, including EIGRP, ISIS, and OSPF
- C. It supports MPLS-VRF label exchange and labeled packets
- D. It should be used when a customer's router is connected to an ISP over OSPF
- E. It can support multiple customers on a single switch

Answer: D E

Question 4

Which statement explains why Type 1 hypervisor is considered more efficient than Type 2 hypervisor?

- A. Type 1 hypervisor runs directly on the physical hardware of the host machine without relying on the underlying OS
- B. Type 1 hypervisor enables other operating systems to run on it
- C. Type 1 hypervisor relies on the existing OS of the host machine to access CPU, memory, storage, and network resources
- D. Type 1 hypervisor is the only type of hypervisor that supports hardware acceleration techniques

Answer: A

Question 5

What are two benefits of virtualizing the server with the use of VMs in data center environment? (Choose two)

- A. increased security
- B. reduced rack space, power, and cooling requirements
- C. reduced IP and MAC address requirements
- D. speedy deployment
- E. smaller Layer 2 domain

Answer: B D

Question 6

Which statement describes the IP and MAC allocation requirements for virtual machines on type 1 hypervisors?

- A. Each virtual machine requires a unique IP and MAC addresses to be able to reach to other nodes
- B. Each virtual machine requires a unique IP address but shares the MAC address with the physical server
- C. Each virtual machines requires a unique IP address but shares the MAC address with the address of the physical server
- D. Each virtual machine requires a unique MAC address but shares the IP address with the physical server

Answer: A

Question 7

What is the main function of VRF-lite?

- A. To allow devices to use labels to make Layer 2 Path decisions
- B. To segregate multiple routing tables on a single device
- C. To connect different autonomous systems together to share routes
- D. To route IPv6 traffic across an IPv4 backbone

Answer: B

Question 8

Refer to the exhibit. You have just created a new VRF on PE3. You have enabled debug ip bgp vpnv4 unicast updates on PE1, and you can see the route in the debug, but not in the BGP VPNv4 table. Which two statements are true? (Choose two)

```
*Jun19 11:12: BGP(4):10.1.1.2 rcvd UPDATE w/ attr:nexthop 10.1.1.2, origin ?, localpref 100,metric 0,extended community RT:999:999
*Jun19 11:12: BGP(4):10.1.1.2 rcvd 999:999:192.168.1.99/32,label 29-DENIED due to:extended community not supported
```

- A. VPNv4 is not configured between PE1 and PE3
- B. address-family ipv4 vrf is not configured on PE3
- C. After you configure route-target import 999:999 for a VRF on PE3, the route will be accepted
- D. PE1 will reject the route due to automatic route filtering

E. After you configure route-target import 999:999 for a VRF on PE1, the route will be accepted

Answer: D E

Question 9

What are two reasons why broadcast radiation is caused in the virtual machine environment? (Choose two)

- A. vSwitch must interrupt the server CPU to process the broadcast packet
- B. The Layer 2 domain can be large in virtual machine environments
- C. Virtual machines communicate primarily through broadcast mode
- D. Communication between vSwitch and network switch is broadcast based
- E. Communication between vSwitch and network switch is multicast based

Answer: A B

Question 10

Which two entities are Type 1 hypervisors? (Choose two)

- A. Oracle VM VirtualBox
- B. Microsoft Hyper-V
- C. VMware server
- D. VMware ESX
- E. Microsoft Virtual PC

Answer: B D

Virtualization Questions 2

<https://www.digitaltut.com/virtualization-questions-2>

Question 1

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-through
- D. Type 2 hypervisor

Answer: D

Question 2

Which 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 VXLAN fabric after installing VXLAN tunnelling drivers on the virtual machines
- D. Use a single routed link to an external router on stick
- E. Use a virtual switch running as a separate virtual machine

Answer: B E

Question 3

What is a Type 1 hypervisor?

- A. runs directly on a physical server and depends on a previously installed operating system
- B. runs directly on a physical server and includes its own operating system
- C. runs on a virtual server and depends on an already installed operating system
- D. run on a virtual server and includes its own operating system

Answer: B

Question 4

Which element enables communication between guest VMs within a virtualized environment?

- A. vSwitch
- B. virtual router
- C. hypervisor
- D. pNIC

Answer: A

Question 5

What is a benefit of using a Type 2 hypervisor instead of a Type 1 hypervisor?

- A. ability to operate on hardware that is running other OSs
- B. improved security because the underlying OS is eliminated
- C. improved density and scalability
- D. better application performance

Answer: A

Question 6

Refer to the exhibit.

```
interface Vlan10
 ip vrf forwarding Customer1
 ip address 192.168.1.1 255.255.255.0
!
interface Vlan20
 ip vrf forwarding Customer2
 ip address 172.16.1.1 255.255.255.0
!
interface Vlan30
 ip vrf forwarding Customer3
 ip address 10.1.1.1 255.255.255.0
```

Which configuration allows Customer2 hosts to access the FTP server of Customer1 that has the IP address of 192.168.1.200?

- A.
ip route vrf Customer1 172.16.1.0 255.255.255.0 172.16.1.1 global
ip route vrf Customer2 192.168.1.200 255.255.255.255 192.168.1.1 global
ip route 192.168.1.0 255.255.255.0 Vlan10
ip route 172.16.1.0 255.255.255.0 Vlan20
- B.
ip route vrf Customer1 172.16.1.0 255.255.255.0 172.16.1.1 Customer2
ip route vrf Customer2 192.168.1.200 255.255.255.255 192.168.1.1 Customer1
- C.
ip route vrf Customer1 172.16.1.0 255.255.255.0 172.16.1.1 Customer1
ip route vrf Customer2 192.168.1.200 255.255.255.255 192.168.1.1 Customer2
- D.
ip route vrf Customer1 172.16.1.1 255.255.255.255 172.16.1.1 global
ip route vrf Customer2 192.168.1.200 255.255.255.0 192.168.1.1 global
ip route 192.168.1.0 255.255.255.0 Vlan10
ip route 172.16.1.0 255.255.255.0 Vlan20

Answer: A

Question 7

A customer has deployed an environment with shared storage to allow for the migration of virtual machines between servers with dedicated operating systems that provide the virtualization platform. What is this operating system described as?

- A. hosted virtualization
- B. type 1 hypervisor
- C. container oriented
- D. decoupled

Answer: A

LISP & VXLAN Questions

<https://www.digitaltut.com/lisp-vxlan-questions>

Question 1

Which LISP device is responsible for publishing EID-to-RLOC mappings for a site?

- A. ETR
- B. MS
- C. ITR
- D. MR

Answer: A

Question 2

Which LISP infrastructure device provides connectivity between non-LISP sites and LISP sites by receiving non-LISP traffic with a LISP site destination?

- A. PETR
- B. Pitr
- C. map resolver
- D. map server

Answer: B

Question 3

Into which two pieces of information does the LISP protocol split the device identity?
(Choose two)

- A. Routing Locator
- B. Endpoint Identifier
- C. Resource Location
- D. Enterprise Identifier
- E. LISP ID
- F. Device ID

Answer: A B

Question 4

Refer to the exhibit. Which LISP component do routers in the public IP network use to forward traffic between the two networks?



- A. EID
- B. RLOC
- C. map server
- D. map resolver

Answer: B

Question 5

Which statement about VXLAN is true?

- A. VXLAN uses TCP 35 the transport protocol over the physical data center network
- B. VXLAN extends the Layer 2 Segment ID field to 24-bits, which allows up to 4094 unique Layer 2 segments over the same network
- C. VXLAN encapsulates a Layer 2 frame in an IP-UDP header, which allows Layer 2 adjacency across router boundaries
- D. VXLAN uses the Spanning Tree Protocol for loop prevention

Answer: C

Question 6

Which two namespaces does the LISP network architecture and protocol use? (Choose two)

- A. TLOC
- B. RLOC
- C. DNS
- D. VTEP
- E. EID

Answer: B E

Question 7

Which action is a function of VTEP in VXLAN?

- A. tunneling traffic from IPv6 to IPv4 VXLANs
- B. allowing encrypted communication on the local VXLAN Ethernet segment
- C. encapsulating and de-encapsulating VXLAN Ethernet frames
- D. tunneling traffic from IPv4 to IPv6 VXLANs

Answer: C

Question 8

What function does VXLAN perform in an SD-Access deployment?

- A. policy plane forwarding
- B. control plane forwarding
- C. data plane forwarding
- D. systems management and orchestration

Answer: C

Question 9

Which two LISP infrastructure elements are needed to support LISP to non-LISP internetworking? (Choose two)

- A. PETR
- B. PITR
- C. MR
- D. MS
- E. ALT

Answer: A C

Question 10

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

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

Answer: D

Question 11

Which entity is responsible for maintaining Layer 2 isolation between segments in a VXLAN environment?

- A. switch fabric
- B. host switch
- C. VTEP
- D. VNID

Answer: D

EIGRP & OSPF Questions

<https://www.digitaltut.com/eigrp-ospf-questions>

Question 1

Which OSPF network types are compatible and allow communication through the two peering devices?

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

Answer: A

Question 2

Based on this interface configuration, what is the expected state of OSPF adjacency?

```
R1
interface GigabitEthernet0/1
 ip address 192.0.2.1 255.255.255.252
 ip ospf 1 area 0
 ip ospf hello-interval 2
 ip ospf cost 1
```

```
R2
interface GigabitEthernet0/1
 ip address 192.0.2.2 255.255.255.252
 ip ospf 1 area 0
 ip ospf cost 500
```

- A. Full on both routers
- B. not established
- C. 2WAY/DROTHER on both routers
- D. FULL/BDR on R1 and FULL/BDR on R2

Answer: B

Question 3

Refer to the exhibit. Which statement about the OPSF debug output is true?

```
R1#debug ip ospf hello
R1#debug condition interface fa0/1
Condition 1 set
```

- A. The output displays all OSPF messages which router R1 has sent or received on interface Fa0/1
- B. The output displays all OSPF messages which router R1 has sent or received on all interfaces
- C. The output displays OSPF hello messages which router R1 has sent or received on interface Fa0/1
- D. The output displays OSPF hello and LSACK messages which router R1 has sent or received

Answer: C

Question 4

Which EIGRP feature allows the use of leak maps?

- A. offset-list
- B. neighbor
- C. address-family
- D. stub

Answer: D

Question 5

Which two statements about EIGRP load balancing are true? (Choose two)

- A. EIGRP supports 6 unequal-cost paths
- B. A path can be used for load balancing only if it is a feasible successor
- C. EIGRP supports unequal-cost paths by default
- D. Any path in the EIGRP topology table can be used for unequal-cost load balancing
- E. Cisco Express Forwarding is required to load-balance across interfaces

Answer: A B

Question 6

Which statement about LISP encapsulation in an EIGRP OTP implementation is true?

- A. OTP uses LISP encapsulation for dynamic multipoint tunneling
- B. OTP maintains the LISP control plane
- C. OTP uses LISP encapsulation to obtain routes from neighbors
- D. LISP learns the next hop

Answer: A

Question 7

Which reason could cause an OSPF neighborship to be in the EXSTART/EXCHANGE state?

- A. Mismatched OSPF network type
- B. Mismatched areas
- C. Mismatched MTU size
- D. Mismatched OSPF link costs

Answer: C

Question 8

Which feature is supported by EIGRP but is not supported by OSPF?

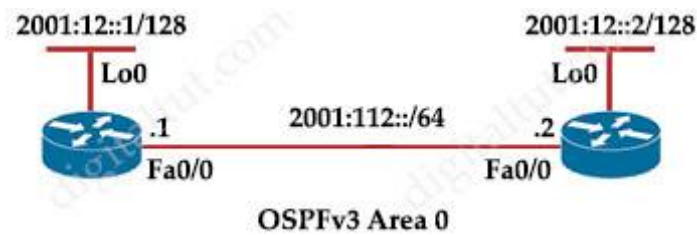
- A. route summarization
- B. equal-cost load balancing

- C. unequal-cost load balancing
- D. route filtering

Answer: C

Question 9

Refer to the exhibit. Which IPv6 OSPF network type is applied to interface Fa0/0 of R2 by default?



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

Answer: A

Question 10

In OSPF, which LSA type is responsible for pointing to the ASBR router?

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

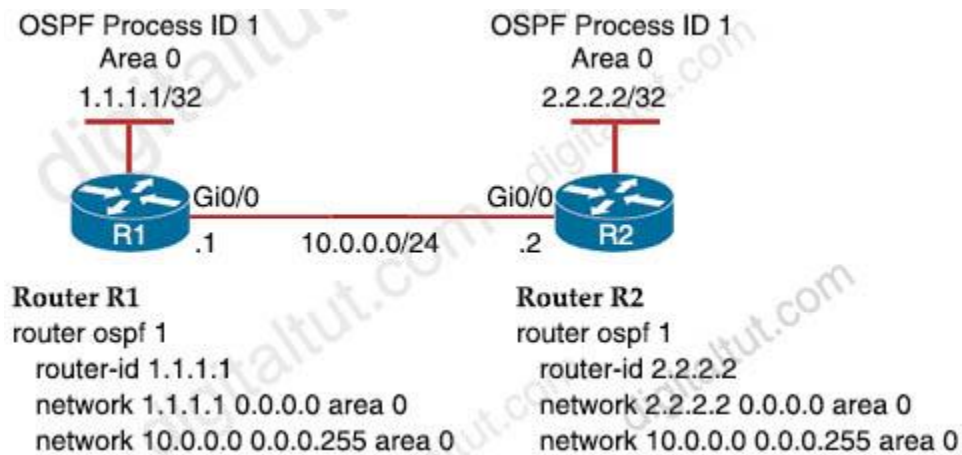
Answer: D

EIGRP & OSPF Questions 2

<https://www.digitaltut.com/eigrp-ospf-questions-2>

Question 1

Refer to the exhibit.



A network engineer is configuring OSPF between router R1 and router R2. The engineer must ensure that a DR/BDR election does not occur on the Gigabit Ethernet interfaces in area 0. Which configuration set accomplishes this goal?

A.
 R1(config-if)#interface Gi0/0
 R1(config-if)#ip ospf network point-to-point

R2(config-if)#interface Gi0/0
 R2(config-if)#ip ospf network point-to-point

B.
 R1(config-if)#interface Gi0/0
 R1(config-if)#ip ospf network broadcast

R2(config-if)#interface Gi0/0
 R2(config-if)#ip ospf network broadcast

C.
 R1(config-if)#interface Gi0/0
 R1(config-if)#ip ospf database-filter all out

R2(config-if)#interface Gi0/0
 R2(config-if)#ip ospf database-filter all out

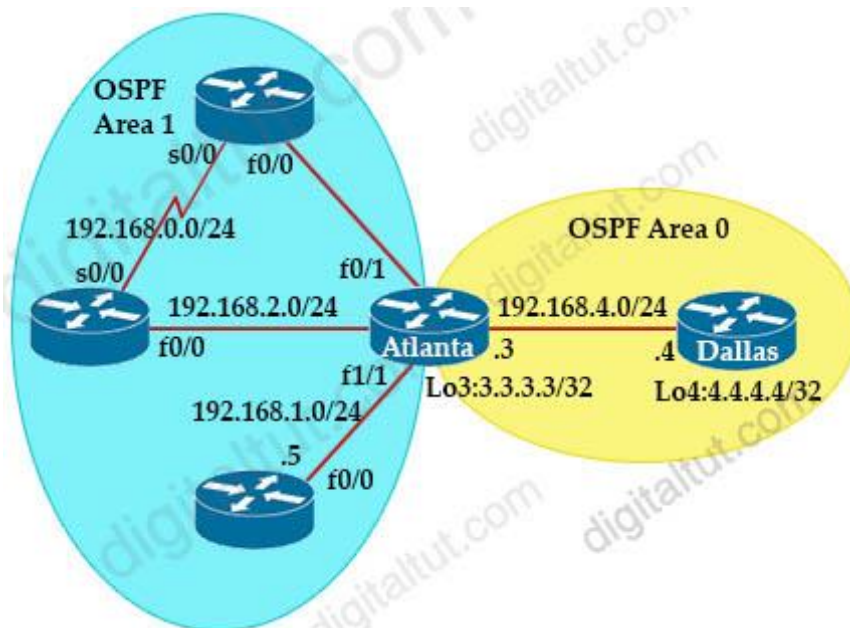
D.
 R1(config-if)#interface Gi0/0
 R1(config-if)#ip ospf priority 1

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

Answer: A

Question 2

Refer to the exhibit.



Dallas#show ip route ospf

3.0.0.0/32 is subnetted, 1 subnets

- O 3.3.3.3 [110/40001] via 192.168.4.3, 00:33:32, FastEthernet0/0
- O IA 192.168.0.0/24 [110/145535] via 192.168.4.3, 00:33:32, FastEthernet0/0
- O IA 192.168.1.0/24 [110/80000] via 192.168.4.3, 00:33:32, FastEthernet0/0
- O IA 192.168.2.0/24 [110/80000] via 192.168.4.3, 00:33:32, FastEthernet0/0
- O IA 192.168.3.0/24 [110/44000] via 192.168.4.3, 00:33:32, FastEthernet0/0

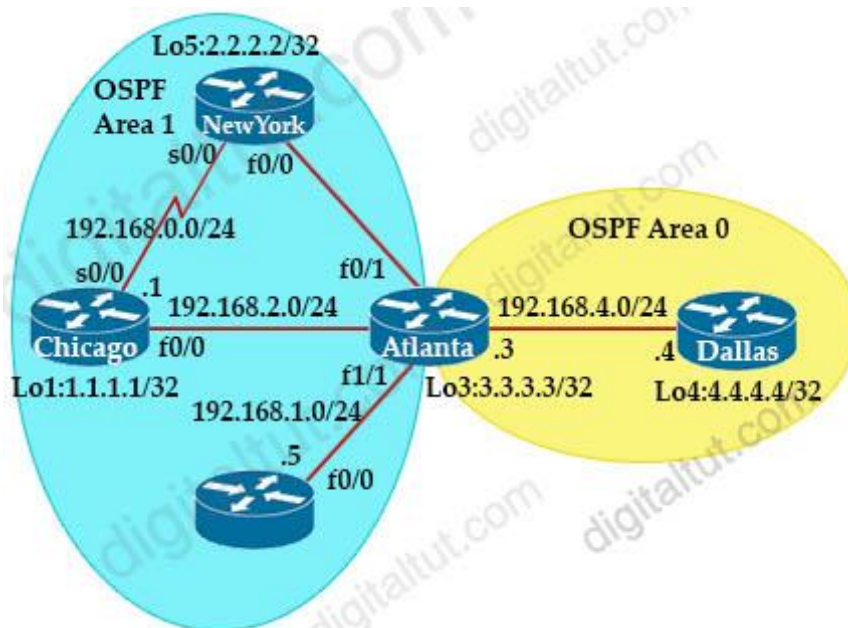
Which command when applied to the Atlanta router reduces type 3 LSA flooding into the backbone area and summarizes the inter-area routes on the Dallas router?

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

Answer: B

Question 3

Refer the exhibit.



```
Chicago#show ip ospf nei
```

Neighbor ID	Pri	State	Dead Time	Address	Interface
3.3.3.3	1	FULL/BDR	00:00:35	192.168.2.3	FastEthernet0/0
2.2.2.2	0	FULL/-	00:00:35	192.168.0.2	Serial0/0

```
Chicago#show ip ospf int bri
```

Interface	PID	Area	IP Address/Mask	Cost	State	Nbrs	F/C
Fa0/0	1	1	192.168.2.1/24	40444	DR	1/1	
Se0/0	1	1	192.168.0.1/24	65535	P2P	1/1	

Chicago#

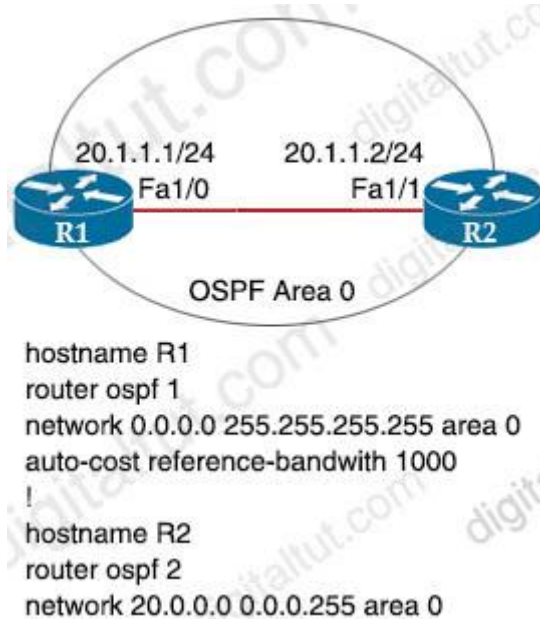
Which router is the designated router on the segment 192.168.0.0/24?

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

Answer: D

Question 4

Refer to the exhibit.



Which command must be applied to R2 for an OSPF neighborship to form?

- A. network 20.1.1.2 0.0.255.255 area 0
- B. network 20.1.1.2 255.255.255.255 area 0
- C. network 20.1.1.2 0.0.0.0 area 0
- D. network 20.1.1.2 255.255.0.0 area 0
- E. network 20.1.1.0 0.0.0.0 area 0

Answer: C

Question 5

Which feature of EIGRP is not supported in OSPF?

- A. load balancing of unequal-cost paths
- B. load balance over four equal-costs paths
- C. uses interface bandwidth to determine best path
- D. per-packet load balancing over multiple paths

Answer: A

Question 6

Refer to the exhibit. An engineer attempts to configure a router on a stick to route packets between Clients, Servers, and Printers; however, initial tests show that this configuration is not working. Which command set resolves this issue?

```

interface Vlan10
ip vrf forwarding Clients
ip address 192.168.1.1 255.255.255.0
!
interface Vlan20
ip vrf forwarding Servers
ip address 172.16.1.1 255.255.255.0
!
interface Vlan30
ip vrf forwarding Printers
ip address 10.1.1.1 255.255.255.0
<output omitted>
router eigrp 1
network 10.0.0.0
network 172.16.0.0
network 192.168.1.0

```

Option A

```

router eigrp 1
network 10.0.0.0 255.0.0.0
network 172.16.0.0 255.255.0.0
network 192.168.1.0 255.255.0.0

```

Option B

```

router eigrp 1
network 10.0.0.0 255.255.255.0
network 172.16.0.0 255.255.255.0
network 192.168.1.0 255.255.255.0

```

Option C

```

interface Vlan10
no ip vrf forwarding Clients
!
interface Vlan20
no ip vrf forwarding Servers
!
interface Vlan30
no ip vrf forwarding Printers

```

Option D

```

interface Vlan10
no ip vrf forwarding Clients
ip address 192.168.1.1 255.255.255.0
!
interface Vlan20
no ip vrf forwarding Servers
ip address 172.16.1.1 255.255.255.0
!
interface Vlan30
no ip vrf forwarding Printers
ip address 10.1.1.1 255.255.255.0

```

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

Answer: D

Question 7

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 hop count and bandwidth. The OSPF metric is calculated on bandwidth and delay.
- D. The EIGRP metric is calculated based on bandwidth and delay. The OSPF metric is calculated on bandwidth only.

Answer: D

BGP Questions

<https://www.digitaltut.com/bgp-questions-7>

Question 1

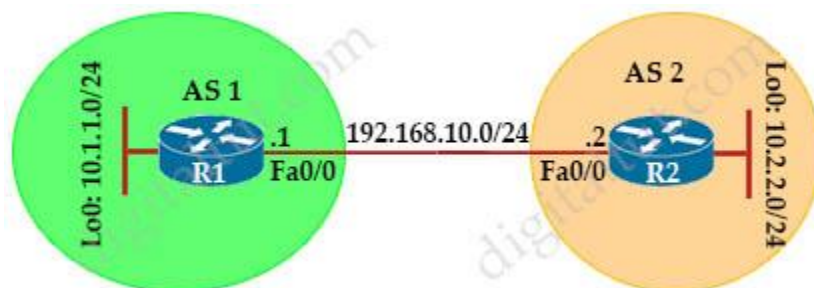
A local router shows an EBGP neighbor in the Active state. Which statement is true about the local router?

- A. The local router has active prefix in the forwarding table from the neighboring router
- B. The local router has BGP passive mode configured for the neighboring router
- C. The local router is attempting to open a TCP session with the neighboring router.
- D. The local router is receiving prefixes from the neighboring router and adding them in RIB-IN

Answer: C

Question 2

Refer to the exhibit. Which configuration establishes EBGP neighborship between these two directly connected neighbors and exchanges the loopback network of the two routers through BGP?



A. R1(config)#router bgp 1
R1(config-router)#neighbor 192.168.10.2 remote-as 2
R1(config-router)#network 10.1.1.0 mask 255.255.255.0

R2(config)#router bgp 2
R2(config-router)#neighbor 192.168.10.1 remote-as 1
R2(config-router)#network 10.2.2.0 mask 255.255.255.0

B. R1(config)#router bgp 1
R1(config-router)#neighbor 10.2.2.2 remote-as 2
R1(config-router)#network 10.1.1.0 mask 255.255.255.0

R2(config)#router bgp 2
R2(config-router)#neighbor 10.1.1.1 remote-as 1
R2(config-router)#network 10.2.2.0 mask 255.255.255.0

C. R1(config)#router bgp 1
R1(config-router)#neighbor 192.168.10.2 remote-as 2
R1(config-router)#network 10.0.0.0 mask 255.0.0.0

R2(config)#router bgp 2
R2(config-router)#neighbor 192.168.10.1 remote-as 1
R2(config-router)#network 10.0.0.0 mask 255.0.0.0

D. R1(config)#router bgp 1
R1(config-router)#neighbor 10.2.2.2 remote-as 2
R1(config-router)#neighbor 10.2.2.2 update-source lo0
R1(config-router)#network 10.1.1.0 mask 255.255.255.0

R2(config)#router bgp 2
R2(config-router)#neighbor 10.1.1.1 remote-as 1
R2(config-router)#neighbor 10.1.1.1 update-source lo0
R2(config-router)#network 10.2.2.0 mask 255.255.255.0

Answer: A

Question 3

Refer to the exhibit. Which IP address becomes the next active next hop for 192.168.102.0/24 when 192.168.101.2 fails?

```
R1#show ip bgp
BGP table version is 32, local router ID is 192.168.101.5
Status codes: s suppressed, d damped, h history, * valid, > best, i -
internal,
               r RIB-failure, S Stale
Origin codes: i - IGP, e - EGP, ? - incomplete
```

	Network	Next Hop	Metric	LocPrf	Weight	Path
*	192.168.102.0	192.168.101.18	80			0 64517 i
*		192.168.101.14	80	80		0 64516 i

*	192.168.101.10		0 64515 64515 i
*>	192.168.101.2		0 64513 i
*	192.168.101.6	80	0 64514 64514 i

- A. 192.168.101.18
- B. 192.168.101.6
- C. 192.168.101.10
- D. 192.168.101.14

Answer: A

Question 4

What is the correct EBGp path attribute list, ordered from most preferred to the least preferred, that the BGP best-path algorithm uses?

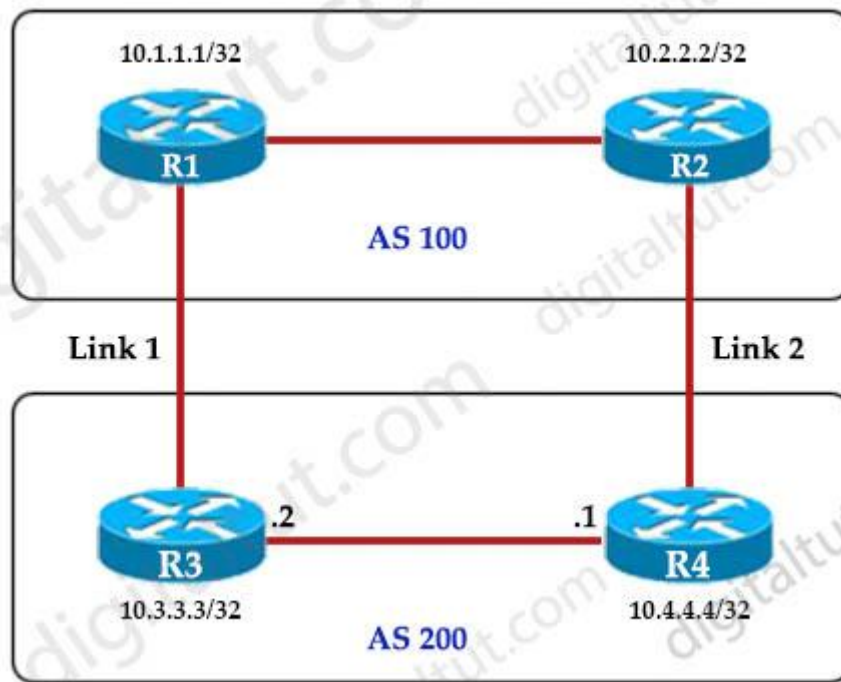
- A. weight, AS path, local preference, MED
- B. weight, local preference, AS path, MED
- C. local preference, weight, AS path, MED
- D. local preference, weight, MED, AS path

Answer: B

Question 5

Refer to the exhibit.

An engineer must ensure that all traffic leaving AS 200 will choose Link 2 as the exit 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?

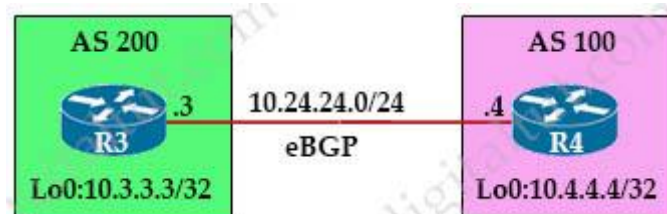


- A. R4(config-router)#bgp default local-preference 200
- B. R3(config-router)#neighbor 10.1.1.1 weight 200
- C. R3(config-router)#bgp default local-preference 200
- D. R4(config-router)#neighbor 10.2.2.2 weight 200

Answer: A

Question 6

Refer to the exhibit.



An engineer must establish eBGP peering between router R3 and router R4. Both routers should use their loopback interfaces as the BGP router ID. Which configuration set accomplishes this task?

- A.
- R3(config)#router bgp 200
- R3(config-router)#neighbor 10.24.24.4 remote-as 100
- R3(config-router)#bgp router-id 10.3.3.3

```
R4(config)#router bgp 100
R4(config-router)#neighbor 10.24.24.3 remote-as 200
R4(config-router)#bgp router-id 10.4.4.4
```

B.

```
R3(config)#router bgp 200
R3(config-router)#neighbor 10.4.4.4 remote-as 100
R3(config-router)#neighbor 10.4.4.4 update-source loopback0
```

```
R4(config)#router bgp 100
R4(config-router)#neighbor 10.3.3.3 remote-as 200
R4(config-router)#neighbor 10.3.3.3 update-source loopback0
```

C.

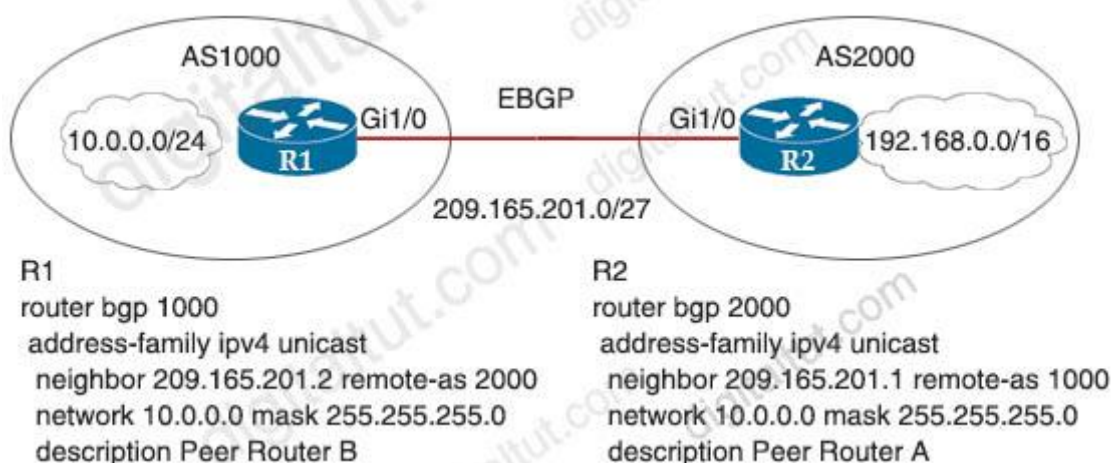
```
R3(config)#router bgp 200
R3(config-router)#neighbor 10.24.24.4 remote-as 100
R3(config-router)#neighbor 10.24.24.4 update-source loopback0
```

```
R4(config)#router bgp 100
R4(config-router)#neighbor 10.24.24.3 remote-as 200
R4(config-router)#neighbor 10.24.24.3 update-source loopback0
```

Answer: A

Question 7

Refer to the exhibit. Which two commands are needed to allow for full reachability between AS 1000 and AS 2000? (Choose two)

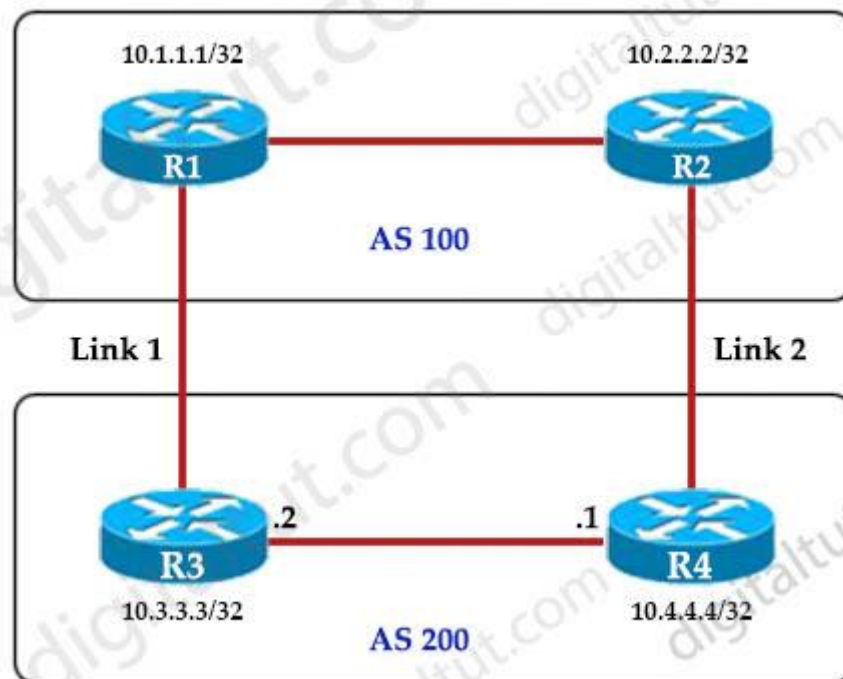


- A. R2#no network 10.0.0.0 255.255.255.0
- B. R1#network 19.168.0.0 mask 255.255.0.0
- C. R1#no network 10.0.0.0 255.255.255.0
- D. R2#network 209.165.201.0 mask 255.255.192.0
- E. R2#network 192.168.0.0 mask 255.255.0.0

Answer: A E

Question 8

Refer to the exhibit.



An engineer must ensure that all traffic entering 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?

Option A

```
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
```

Option C

```
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
```

Option B

```
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
```

Option D

```
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

Answer: A

Wireless Questions

<https://www.digitaltut.com/wireless-questions>

Question 1

Which DNS lookup does an access point perform when attempting CAPWAP discovery?

- A. CISCO-DNA-CONTROILLER.local
- B. CAPWAP-CONTROLLER.local
- C. CISCO-CONTROLLER.local
- D. CISCO-CAPWAP-CONTROLLER.local

Answer: D

Question 2

Which two pieces of information are necessary to compute SNR? (Choose two)

- A. EIRP
- B. noise floor
- C. antenna gain
- D. RSSI
- E. transmit power

Answer: B D

Question 3

Which statement about Cisco EAP-FAST is true?

- A. It does not require a RADIUS server certificate
- B. It requires a client certificate
- C. It is an IETF standard.
- D. It operates in transparent mode

Answer: A

Question 4

Refer to the exhibit. The WLC administrator sees that the controller to which a roaming client associates has Mobility Role Anchor configured under Clients > Detail. Which type of roaming is supported?

Clients > Detail

Client Properties

MAC Address	00:09:ee:12:34:d2
IP Address	192.168.100.199
Client Type	Regular
User Name	
Port Number	20
Interface	00:09:ee:12:34:d2
VLAN ID	3602
CCX Version	Not Supported
E2E Version	E2Ev1
Mobility Role	Anchor
Mobility Peer IP Address	172.22.253.20
Policy Manager State	RUN
Management Frame Protection	No
UpTime (Sec)	944581
Power Save Mode	OFF
Current TxRateSet	48.0
Data RateSet	6.0,9.0,12.0,18.0,24.0,36.0,48.0,54.0

AP Properties

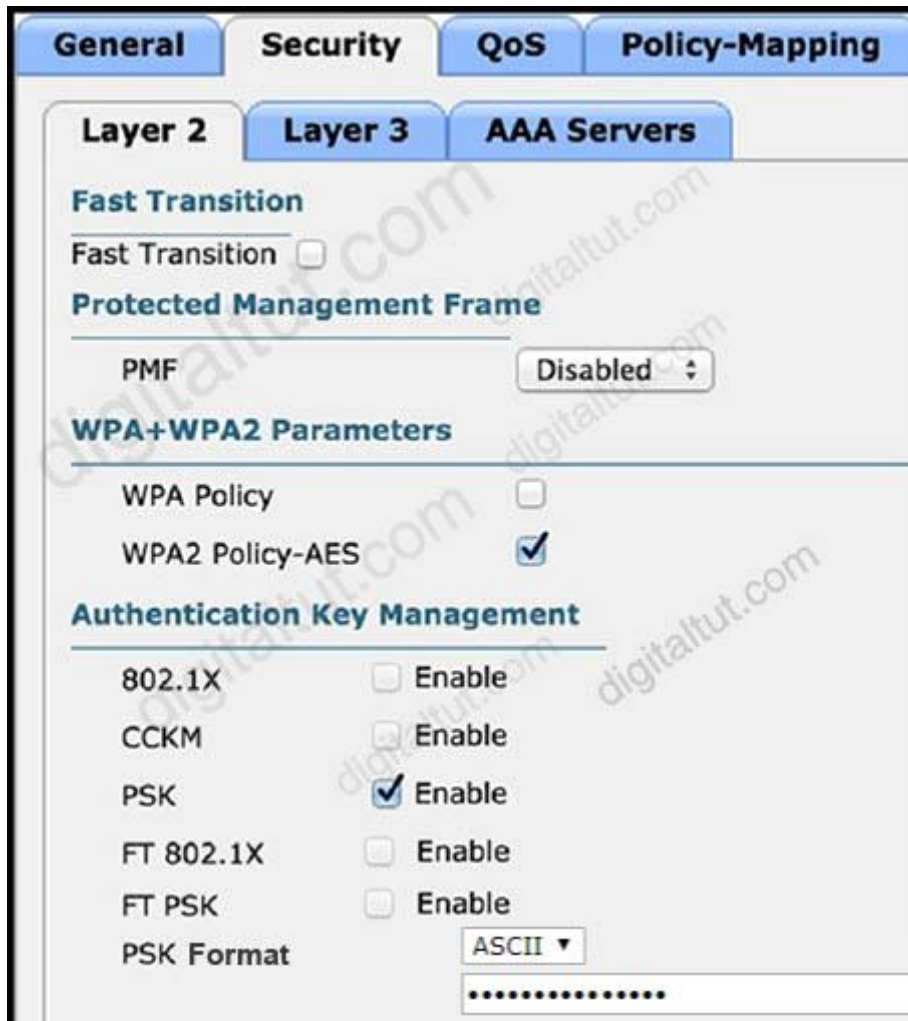
AP Address	
AP Name	172.22.253.20
AP Type	Mobile
WLAN Profile	
Status	Associated
Association ID	16
802.11 Authentication	Open System
Reason Code	1
Status Code	0
CF Pollable	Not Implemented
CF Poll Request	Not Implemented
Short Preamble	Not Implemented
PBCC	Not Implemented
Channel Agility	Not Implemented
Timeout	0
WEP State	WEP Enable

- A. Indirect
- B. Layer 3 intercontroller
- C. Layer 2 intercontroller
- D. Intercontroller

Answer: B

Question 5

Refer to the exhibit. Based on the configuration in this WLAN security setting. Which method can a client use to authenticate to the network?



The screenshot shows the 'Security' tab of a WLAN configuration interface. Under the 'Layer 2' sub-tab, the 'Protected Management Frame' (PMF) is set to 'Disabled'. In the 'WPA+WPA2 Parameters' section, 'WPA Policy' is unchecked and 'WPA2 Policy-AES' is checked. The 'Authentication Key Management' section lists several protocols: '802.1X', 'CCKM', 'PSK', 'FT 802.1X', and 'FT PSK'. 'PSK' is the only one checked and enabled. The 'PSK Format' is set to 'ASCII'.

Section	Item	Status
Protected Management Frame	PMF	Disabled
	WPA Policy	☐
WPA+WPA2 Parameters	WPA2 Policy-AES	☒
	Authentication Key Management	
Authentication Key Management	802.1X	☐ Enable
	CCKM	☐ Enable
	PSK	☒ Enable
	FT 802.1X	☐ Enable
	FT PSK	☐ Enable
PSK Format	ASCII	

- A. text string
- B. username and password
- C. certificate
- D. RADIUS token

Answer: A

Question 6

What are two common sources of interference for WI-FI networks? (Choose two)

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

Answer: A C

Question 7

An engineer is configuring local web authentication on a WLAN. The engineer chooses the Authentication radio button under the Layer 3 Security options for Web Policy. Which device presents the web authentication for the WLAN?

- A. ISE server
- B. local WLC
- C. RADIUS server
- D. anchor WLC

Answer: B

Question 8

Which two descriptions of FlexConnect mode for Cisco APs are true? (Choose two)

- A. APs that operate in FlexConnect mode cannot detect rogue APs
- B. FlexConnect mode is used when the APs are set up in a mesh environment and used to bridge between each other
- C. FlexConnect mode is a feature that is designed to allow specified CAPWAP-enabled APs to exclude themselves from managing data traffic between clients and infrastructure
- D. When connected to the controller, FlexConnect APs can tunnel traffic back to the controller
- E. FlexConnect mode is a wireless solution for branch office and remote office deployments

Answer: D E

Question 9

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

Answer: C

Question 10

An engineer configures a WLAN with fast transition enabled. Some legacy clients fail to connect to this WLAN. Which feature allows the legacy clients to connect while still allowing other clients to use fast transition based on their OLTIs?

- A. over the DS
- B. adaptive R
- C. 802.11V
- D. 802.11k

Answer: B

Question 11

To increase total throughput and redundancy on the links between the wireless controller and switch, the customer enabled LAG on the wireless controller. Which EtherChannel mode must be configured on the switch to allow the WLC to connect?

- A. Auto
- B. Active
- C. On
- D. Passive

Answer: C

Question 12

A client device fails to see the enterprise SSID, but other devices are connected to it. What is the cause of this issue?

- A. The hidden SSID was not manually configured on the client.
- B. The broadcast SSID was not manually configured on the client.
- C. The client has incorrect credentials stored for the configured hidden SSID.
- D. The client has incorrect credentials stored for the configured broadcast SSID.

Answer: A

Question 13

A customer has several small branches and wants to deploy a WI-FI solution with local management using CAPWAP. Which deployment model meets this requirement?

- A. Autonomous
- B. Mobility express
- C. SD-Access wireless
- D. Local mode

Answer: B

Question 14

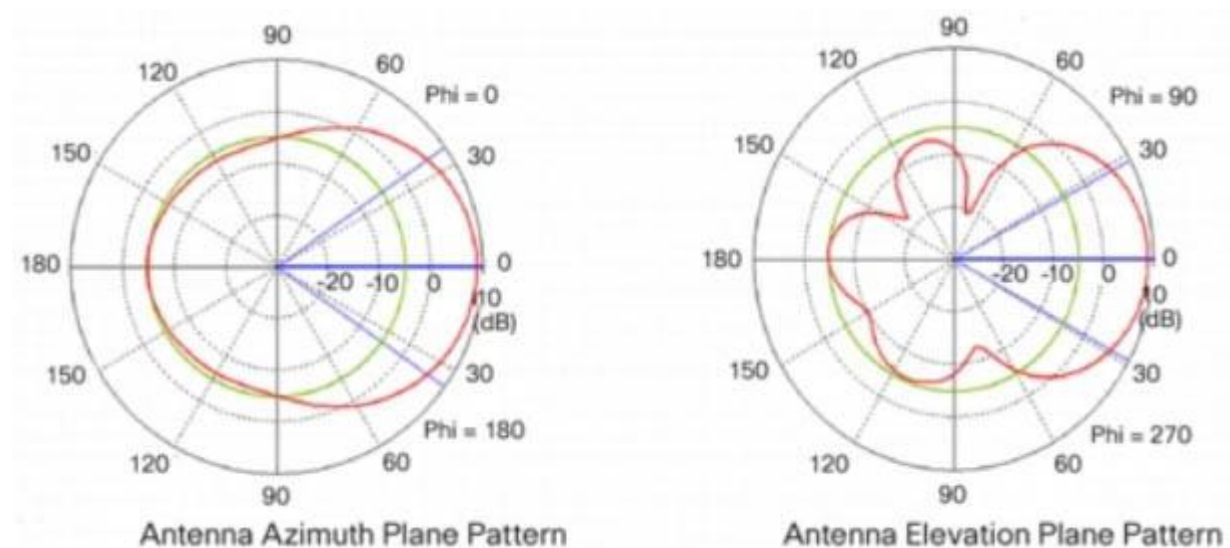
Which two methods are used by an AP that is trying to discover a wireless LAN controller?
(Choose two)

- A. Cisco Discovery Protocol neighbor
- B. broadcasting on the local subnet
- C. DNS lookup cisco-DNA-PRIMARY.local domain
- D. DHCP Option 43
- E. querying other APs

Answer: B D

Question 15

Refer to the exhibit. Which type of antenna do the radiation patterns present?



- A. Patch
- B. Omnidirectional
- C. Yagi
- D. Dipole

Answer: A

Wireless Questions 2

<https://www.digitaltut.com/wireless-questions-2>

Question 1

When a wireless client roams between two different wireless controllers, a network connectivity outage is experienced 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

Answer: B

Question 2

Which access point mode allows a supported AP to function like a WLAN client would, associating and identifying client connectivity issues?

- A. client mode
- B. SE-connect mode
- C. sensor mode
- D. sniffer mode

Answer: C

Question 3

A client device roams between access points located on different floors in an atrium. The access points are joined to the same controller and configured in local mode. The access points are in different IP addresses, but the client VLAN in the group is the same. What type of roam occurs?

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

Answer: D

Question 4

What does the LAP send when multiple WLCs respond to the CISCO_CAPWAP-CONTROLLER.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 WLC that resolves the domain name

Answer: C

Question 5

Refer to the exhibit.

WLANs > Edit 'LiveDemo'

General **Security** **QoS** **Policy-Mapping** **Advanced**

Layer 2 **Layer 3** **AAA Servers**

Select AAA servers below to override use of default servers on this WLAN

Radius Servers

Radius Server Overwrite interface ☒ Enabled

Interface Priority WLAN

	Authentication Servers	Accounting Servers
	☒ Enabled	☒ Enabled
Server 1	None	None
Server 2	None	None
Server 3	None	None
Server 4	None	None
Server 5	None	None
Server 6	None	None

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

Answer: A

Question 6

Wireless users report frequent disconnections from the wireless network. While troubleshooting a network engineer finds that after the user a disconnect, the connection reestablishes automatically without any input required. The engineer also notices these message logs.

AP 'AP2' is down Reason: Radio channel set. 6:54:04 PM
AP 'AP4' is down Reason: Radio channel set. 6:44:49 PM
AP 'AP7' is down Reason: Radio channel set. 6:34:32 PM

Which action reduces the user impact?

- A. increase the dynamic channel assignment interval
- B. increase BandSelect
- C. increase the AP heartbeat timeout
- D. enable coverage hole detection

Answer: A

Question 7

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

Answer: A

Question 8

Why is an AP joining a different WLC than the one specified through option 43?

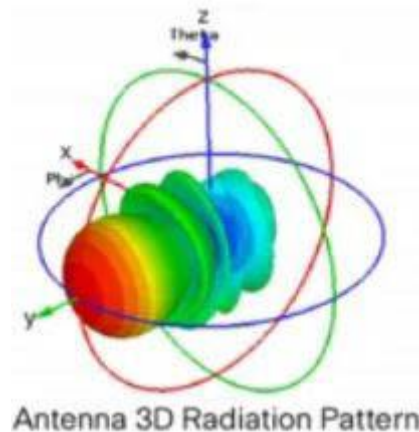
- A. The WLC is running a different software version
- B. The AP is joining a primed WLC

- C. The AP multicast traffic unable to reach the WLC through Layer 3
- D. The APs broadcast traffic is unable to reach the WLC through Layer 2

Answer: B

Question 9

Which type of antenna does the radiation pattern represent?



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

Answer: A

Question 10

What is calculated using the numerical values of the transmitter power level, cable loss and antenna gain?

- A. SNR
- B. RSSI
- C. dBi
- D. EIRP

Answer: D

Wireless Questions 3

<https://www.digitaltut.com/wireless-questions-3>

Question 1

What is used to measure the total output energy of a Wi-Fi device?

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

Answer: C

Question 2

You are configuring a controller that runs Cisco IOS XE by using the CLI. Which three configuration options are used for 802.11w Protected Management Frames? (Choose three)

- A. mandatory
- B. association-comeback
- C. SA teardown protection
- D. saquery-retry-time
- E. enable
- F. comeback-time

Answer: A B D

Question 3

Refer to the exhibit.

```
(WLC) >show interface summary
```

Interface Name	Vlan Id
deadnet	999
users1	14
users2	15
users3	16

```
(WLC) >show wlan 1
```

```
WLAN Identifier . . . . . 1
Network Name (SSID) . . . . . wlan1
AAA Policy Override . . . . . Enabled
Interface . . . . . deadnet
FlexConnect Local Switching . . . . . Enabled
FlexConnect Central Association . . . . . Disabled
flexconnect Central Dhcp Flag . . . . . Disabled
flexconnect nat-pat Flag . . . . . Disabled
flexconnect DNS Override Flag . . . . . Disabled
flexconnect PPPoE pass-through . . . . . Disabled
flexconnect local-switching IP-source-guar . . . . . Disabled
FlexConnect Vlan based Central Switching . . . . . Enabled
FlexConnect Local Authentication . . . . . Disabled
FlexConnect Learn IP Address . . . . . Enabled
```

```
(WLC) >show ap config general FlexAP1
```

```
AP Mode . . . . . FlexConnect
FlexConnect Vlan mode : . . . . . Enabled
Native ID : . . . . . 1
WLAN 1 : . . . . . 10 (AP-Specific)
FlexConnect VLAN ACL Mappings
Vlan : . . . . . 10
Ingress ACL : . . . . . None
Egress ACL : . . . . . None
VLAN with least priority : . . . . . 13
FlexConnect Group . . . . . flexgroup1
Group VLAN ACL Mappings
Vlan : . . . . . 11
Ingress ACL : . . . . . None
Egress ACL : . . . . . None
Vlan : . . . . . 12
```

A wireless client is connecting to FlexAP1 which is currently working standalone mode. The AAA authentication process is returning the following AVPs:

```
Tunnel-Private-Group-Id(81): 15
Tunnel-Medium-Type(65): IEEE-802(6)
Tunnel-Type(64): VLAN(13)
```

Which three behaviors will the client experience? (Choose three)

- A. While the AP is in standalone mode, the client will be placed in VLAN 15.
- B. While the AP is in standalone mode, the client will be placed in VLAN 10.

- C. When the AP transitions to connected mode, the client will be de-authenticated.
- D. While the AP is in standalone mode, the client will be placed in VLAN 13.
- E. When the AP is in connected mode, the client will be placed in VLAN 13.
- F. When the AP transitions to connected mode, the client will remain associated.
- G. When the AP is in connected mode, the client will be placed in VLAN 15.
- H. When the AP is in connected mode, the client will be placed in VLAN 10.

Answer: B C G

Question 4

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

- A. Omnidirectional
- B. Yagi
- C. dipole
- D. patch

Answer: B

Question 5

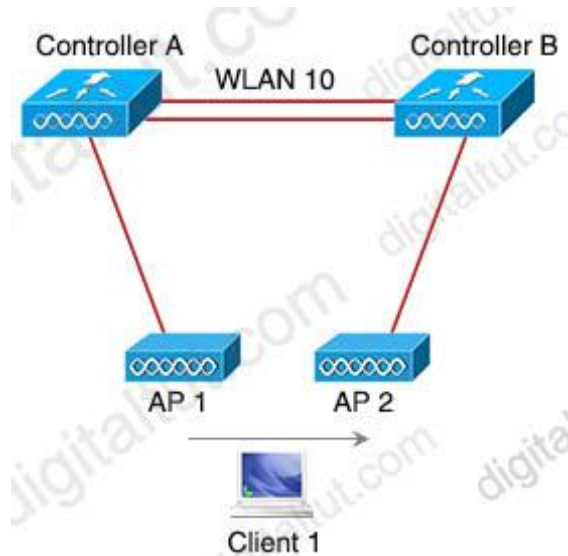
Using the EIRP formula, what parameter is subtracted to determine the EIRP value?

- A. antenna cable loss
- B. antenna gain
- C. transmitter power
- D. signal-to-noise ratio

Answer: A

Question 6

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

Answer: D

Question 7

Which two sources cause interference for Wi-Fi networks? (Choose two)

- A. mirrored wall
- B. fish tank
- C. 900MHz baby monitor
- D. DECT 6.0 cordless
- E. incandescent lights

Answer: A B

Question 8

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.

Answer: C

Question 9

Which DHCP option provides the CAPWAP APs with the address of the wireless controller(s)?

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

Answer: A

Question 10

A wireless consultant is designing a high-density wireless network for a lecture hall for 1000 students. Which antenna type is recommended for this environment?

- A. sector antenna
- B. dipole antenna
- C. parabolic dish
- D. omnidirectional antenna

Answer: D

Question 11

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

Answer: A

Question 12

Refer to the exhibit. Which level message does the WLC send to the syslog server?

The screenshot shows the 'Management' tab on the left sidebar with a menu including Summary, SNMP, HTTP-HTTPS, Telnet-SSH, Serial Port, Local Management Users, User Sessions, Logs (with sub-items Config and Message logs), Mgmt Via Wireless, and Tech Support. The main content area is titled 'Syslog Server' and shows a configuration for IP 192.168.100.2 with a 'Remove' link. Below this, the 'Msg Log Configuration' section is visible. The 'Syslog Level' is set to 'Errors'. The 'Syslog Facility' is set to 'Local Use 0'. The 'IPSec' checkbox is unchecked, and the 'IPSec Profile Name' is set to 'none'. In the 'Msg Log Configuration' section, 'Buffered Log Level' is 'Errors', 'Console Log Level' is 'Disable', 'File Info' and 'Trace Info' are checked, and 'Traceback Logging Level' is 'Errors'.

- A. syslog level errors and less severity messages
- B. syslog level errors messages
- C. all syslog levels messages
- D. syslog level errors and greater severity messages

Answer: D

HSRP & VRRP Questions

<https://www.digitaltut.com/hsrp-vrrp-questions>

Question 1

Which two statements about HSRP are true? (Choose two)

- A. Its virtual MAC is 0000.0C07.ACxx
- B. Its multicast virtual MAC is 0000.5E00.01xx
- C. Its default configuration allows for pre-emption
- D. It supports tracking
- E. It supports unique virtual MAC addresses

Answer: A D

Question 2

Which behavior can be expected when the HSRP versions is changed from 1 to 2?

- A. Each HSRP group reinitializes because the virtual MAC address has changed
- B. No changes occur because version 1 and 2 use the same virtual MAC OUI
- C. Each HSRP group reinitializes because the multicast address has changed
- D. No changes occur because the standby router is upgraded before the active router

Answer: A

Question 3

If a VRRP master router fails, which router is selected as the new master router?

- A. router with the highest priority
- B. router with the highest loopback address
- C. router with the lowest loopback address
- D. router with the lowest priority

Answer: A

Question 4

Which First Hop Redundancy Protocol maximizes uplink utilization and minimizes the amount of configuration that is necessary?

- A. GLBP
- B. HSRP v2
- C. VRRP
- D. HSRP v1

Answer: A

Question 5

What are three valid HSRP states? (Choose three)

- A. listen
- B. learning
- C. full
- D. established
- E. speak
- F. INIT

Answer: A B E

Question 6

Which two statements about VRRP are true? (Choose two)

- A. It is assigned multicast address 224.0.0.8.
- B. The TTL for VRRP packets must be 255.
- C. It is assigned multicast address 224.0.0.9.
- D. Its IP address number is 115.
- E. Three versions of the VRRP protocol have been defined.
- F. It supports both MD5 and SHA1 authentication.

Answer: B E

Question 7

Which statement about VRRP is true?

- A. It supports load balancing
- B. It can be configured with HSRP on a switch or switch stack
- C. It supports IPv4 and IPv6
- D. It supports encrypted authentication

Answer: B

Question 8

Which First Hop Redundancy Protocol should be used to meet a design requirements for more efficient default bandwidth usage across multiple devices?

- A. GLBP
- B. LCAP
- C. HSRP
- D. VRRP

Answer: A

Question 9

How does SSO work with HSRP to minimize network disruptions?

- A. It enables HSRP to elect another switch in the group as the active HSRP switch
- B. It ensures fast failover in the case of link failure
- C. It enables data forwarding along known routes following a switchover, while the routing protocol reconverges
- D. It enables HSRP to failover to the standby RP on the same device

Answer: D

Question 10

An engineer must configure interface GigabitEthernet0/0 for VRRP group 10. When the router has the highest priority in the group, it must assume the master role. Which command set must be added to the initial configuration to accomplish this task?

Initial Configuration

```
interface GigabitEthernet0/0
description to IDF
ip address 172.16.13.2 255.255.255.0
```

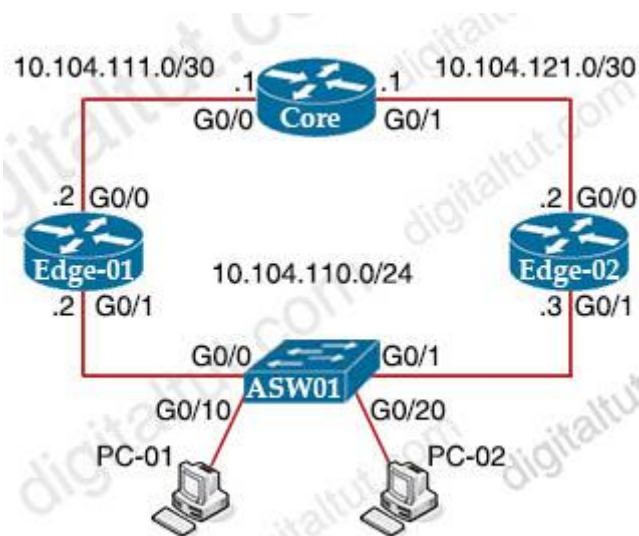
- A.
vrrp 10 ip 172.16.13.254
vrrp 10 preempt
- B.
standby 10 ip 172.16.13.254
standby 10 priority 120
- C.
vrrp group 10 ip 172.16.13.254 255.255.255.0
vrrp group 10 priority 120

D.
standby 10 ip 172.16.13.254 255.255.255.0
standby 10 preempt

Answer: A

Question 11

Refer to the exhibit. Edge-01 is currently operational as the HSRP primary with priority 110. Which command on Edge-02 causes it to take over the forwarding role when Edge-01 is down?

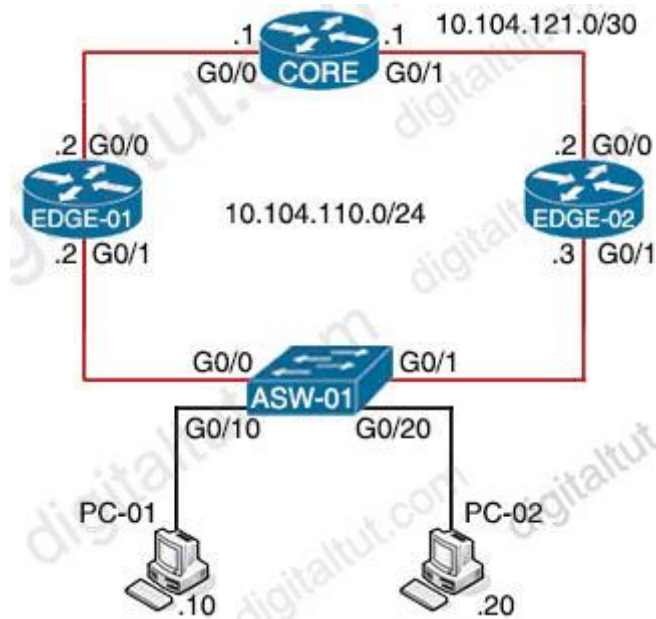


- A. standby 10 priority
- B. standby 10 timers
- C. standby 10 track
- D. standby 10 preempt

Answer: D

Question 12

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

Answer: B

HSRP & VRRP Questions 2

<https://www.digitaltut.com/hsrp-vrrp-questions-2>

Question 1

Refer to the exhibit.

R1
key chain cisco123
key 1
key-string Cisco123!

Ethernet0/0 - Group 10
State is Active
8 state changes, last state change 00:03:33
Virtual IP address is 192.168.0.1
Active virtual MAC address is 0000.0c07.ac0a

R2
key chain cisco123
key 1
key-string Cisco123!

Ethernet0/0 - Group 10
State is Active
17 state changes, last state change 00:03:33
Virtual IP address is 192.168.0.1
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. HSRPv2
- B. VRRP
- C. GLBP
- D. HSRPv1

Answer: D

Question 2

Refer to the exhibit.

```
R1
interface GigabitEthernet0/0
 ip address 192.168.250.2 255.255.255.0
 standby 20 ip 192.168.250.1
 standby 20 priority 120
```

```
R2
interface GigabitEthernet0/0
 ip address 192.168.250.3 255.255.255.0
 standby 20 ip 192.168.250.1
 standby 20 priority 110
```

What are two effects of this configuration? (Choose two)

- A. R1 becomes the active router
- B. R1 becomes the standby router
- C. If R2 goes down, R1 becomes active but reverts to standby when R2 comes back online
- D. If R1 goes down, R2 becomes active but reverts to standby when R1 comes back online
- E. If R1 goes down, R2 becomes active and remains the active device when R1 comes back online

Answer: A E

Question 3

Refer to the exhibit.

R1 key chain cisco123 key 1 key-string Cisco123!	R2 key chain cisco123 key 1 key-string cisco123!
Ethernet0/0 - Group 10 State is Active 8 state changes, last state change 00:03:33 Virtual IP address is 192.168.0.1 Active virtual MAC address is 0000.0c07.ac0a Local virtual MAC address is 0000.0c07.ac0a (v1 default) Hello time 5 sec, hold time 15 sec Next hello sent in 2.704 secs Authentication MD5, key-chain "cisco123" Preemption enabled Active router is local Standby router is unknown Priority 255 (configured 255) Group name is "workstation-group" (cfgd)	Ethernet0/0 - Group 10 State is Active 17 state changes, last state change 00:03:33 Virtual IP address is 192.168.0.1 Active virtual MAC address is 0000.0c07.ac0a Local virtual MAC address is 0000.0c07.ac0a (v1 default) Hello time 10 sec, hold time 30 sec Next hello sent in 6.704 secs Authentication MD5, key-chain "cisco123" Preemption disabled Active router is local Standby router is unknown Priority 200 (configured 200) Group name is "workstation-group" (cfgd)

An engineer is installing a new pair of routers in a redundant configuration. When checking on the standby status of each router the engineer notices that the routers are not functioning as expected. Which action will resolve the configuration error?

- A. configure matching hold and delay timers
- B. configure matching key-strings
- C. configure matching priority values
- D. configure unique virtual IP addresses

Answer: B

Question 4

An engineer must configure HSRP group 300 on a Cisco IOS router. When the router is functional, it must be the active HSRP router. The peer router has been configured using the default priority value. Which three commands are required? (Choose three)

- A. standby 300 timers 1 110
- B. standby 300 priority 90
- C. standby 300 priority 110
- D. standby version 2
- E. standby version 1
- F. standby 300 preempt

Answer: C D F

Network Assurance Questions

<https://www.digitaltut.com/network-assurance-questions>

Question 1

Refer to this output What is the logging severity level?

R1#Feb 14 37:15:12:429: %LINEPROTO-5-UPDOWN Line protocol on interface GigabitEthernet0/1. Change state to up

- A. Notification
- B. Alert
- C. Critical
- D. Emergency

Answer: A

Question 2

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

Answer: A

Question 3

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

- A. Cisco Firepower and FireSIGHT
- B. Cisco Stealthwatch system
- C. Advanced Malware Protection
- D. Cisco Web Security Appliance

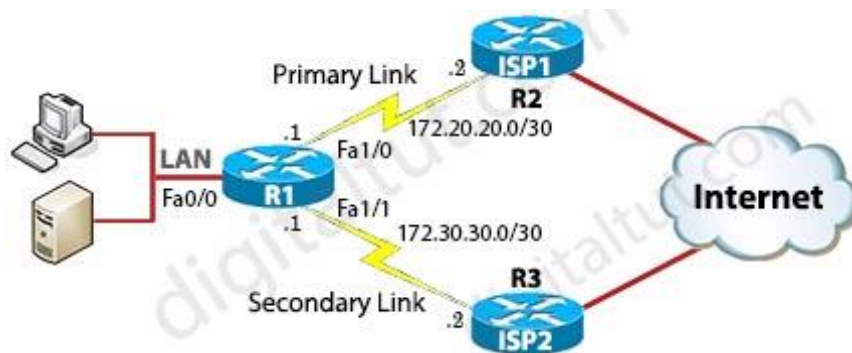
Answer: B

IP SLA Questions

<https://www.digitaltut.com/ip-sla-questions-3>

Question 1

Refer to exhibit. What are two reasons for IP SLA tracking failure? (Choose two)



```
R1(config)#ip sla 1
R1(config-ip-sla)#icmp-echo 172.20.20.2 source-interface FastEthernet0/0
R1(config-ip-sla-echo)#timeout 5000
R1(config-ip-sla-echo)#frequency 10
R1(config-ip-sla-echo)#threshold 500
R1(config)#ip sla schedule 1 start-time now life forever
R1(config)#track 10 ip sla 1 reachability
R1(config)#ip route 0.0.0.0 0.0.0.0 172.20.20.2 track 10
R1(config)#no ip route 0.0.0.0 0.0.0.0 172.20.20.2
R1(config)#ip route 0.0.0.0 0.0.0.0 172.30.30.2 5
```

- A. The source-interface is configured incorrectly
- B. The destination must be 172.30.30.2 for icmp-echo
- C. A route back to the R1 LAN network is missing in R2
- D. The default route has wrong next hop IP address
- E. The threshold value is wrong

Answer: C E

Question 2

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

Answer: A

Question 3

Which two statements about IP SLA are true? (Choose two)

- A. SNMP access is not supported
- B. It uses active traffic monitoring
- C. It is Layer 2 transport-independent
- D. The IP SLA responder is a component in the source Cisco device
- E. It can measure MOS
- F. It uses NetFlow for passive traffic monitoring

Answer: B C

Question 4

Which IP SLA operation requires the IP SLA responder to be configured on the remote end?

- A. ICMP echo
- B. UDP jitter
- C. ICMP jitter
- D. TCP connect

Answer: B

NetFlow Questions

<https://www.digitaltut.com/netflow-questions-2>

Question 1

A network engineer is configuring Flexible NetFlow and enters these commands:

```
Sampler Netflow1
mode random one-out-of 100
interface fastethernet 1/0
flow-sampler netflow1
```

Which are two results of implementing this feature instead of traditional NetFlow? (Choose two)

- A. Only the flows of top 100 talkers are exported
- B. CPU and memory utilization are reduced
- C. The data export flow is more secure
- D. The accuracy of the data to be analyzed is improved
- E. The number of packets to be analyzed are reduced

Answer: B E

Question 2

Refer to the exhibit.

```
flow record v4_r1
 match ipv4 tos
 match ipv4 protocol
 match ipv4 source address
 match ipv4 destination address
 match transport source-port
 match transport destination-port
 collect counter bytes long
 collect counter packets long
!
flow monitor FLOW-MONITOR-1
 record v_r1
 exit
!
sampler SAMPLER-1
 mode random 1 out-of 2
 exit
!
ip cef
!
interface GigabitEthernet0/0/0
 ip address 172.16.6.2 255.255.255.0
```

Option A sampler SAMPLER-1 mode random 1-out-of 2 flow FLOW-MONITOR-1 interface GigabitEthernet0/0/0 ip flow monitor SAMPLER-1 input	Option B sampler SAMPLER-1 no mode random 1-out-of 2 mode percent 50 interface GigabitEthernet0/0/0 ip flow monitor FLOW_MONITOR-1 sampler S
Option C interface GigabitEthernet0/0/0 ip flow monitor FLOW-MONITOR-1 sampler S	Option D flow monitor FLOW-MONITOR-1 record v4_r1 sampler SAMPLER-1 interface GigabitEthernet0/0/0 ip flow monitor FLOW-MONITOR-1 sampler S

Which command set must be added to the configuration to analyze 50 packets out of every 100?

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

Answer: C

Question 3

Refer to the exhibit. How can you configure a second export destination for IP address 192.168.10.1?

```
configure terminal
ip flow-export destination 192.168.10.1 9991
ip flow-export version 9
```

- A. Specify a different TCP port
- B. Specify a different UDP port
- C. Specify a VRF
- D. Configure a version 5 flow-export to the same destination
- E. Specify a different flow ID

Answer: B

Question 4

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

Answer: B

SPAN Questions

<https://www.digitaltut.com/span-questions>

Question 1

Refer to the exhibit.

```
SW1#show 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              : Disabled
```

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

Answer: D

Question 2

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 FastEthernet0/1 rx
- B. monitor session 1 source interface port-channel 6
- C. monitor session 1 source vlan 10
- D. monitor session 1 source interface port-channel 7, port-channel 8

Answer: C

Question 3

Refer to the exhibit.

```
monitor session 1 source vlan 10 -12 rx
monitor session 1 destination interface gigabitethernet0/1
```

An engineer must configure a SPAN session. What is the effect of the configuration?

- A. Traffic sent on VLANs 10, 11, and 12 is copied and sent to interface g0/1.
- B. Traffic sent on VLANs 10 and 12 only is copied and sent to interface g0/1.
- C. Traffic received on VLANs 10 and 12 only is copied and sent to interface g0/1.
- D. Traffic received on VLANs 10, 11, and 12 is copied and sent to interface g0/1.

Answer: D

Question 4

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** command?

- 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

Answer: A

Question 5

Which feature must be configured to allow packet capture over Layer 3 infrastructure?

- A. VSPAN
- B. IPSPAN
- C. RSPAN
- D. ERSPAN

Answer: D

Question 6

Which statement about an RSPAN session configuration is true?

- A. A filter must be configured for RSPAN Regions
- B. Only one session can be configured at a time
- C. A special VLAN type must be used as the RSPAN destination.
- D. Only incoming traffic can be monitored

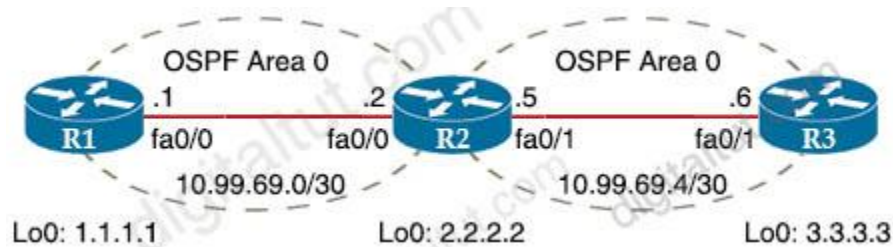
Answer: C

Troubleshooting Questions

<https://www.digitaltut.com/troubleshooting-questions-2>

Question 1

Refer to the exhibit. R1 is able to ping the R3 fa0/1 interface. Why do the extended pings fail?



```

R1#ping
Protocol [ip]:
Target IP address: 3.3.3.3
Repeat count [5]: 3
Datagram size [100]: 1500
Timeout in seconds [2]:
Extended commands [n]: y
Source address or interface: 1.1.1.1
Type of service [0]:
Set DF bit in IP header? [no]: yes
Validate reply data? [no]:
Data pattern [0xABCD]:
Loose, Strict, Record, Timestamp, Verbose[none]: Record
Number of hops [9]:
Loose, Strict, Record, Timestamp, Verbose[RV]:
Sweep range of sizes [n]:
Type escape sequence to abort.
Sending 3, 1500-byte ICMP Echos to 3.3.3.3, timeout is 2 seconds:
Packet sent with a source address of 1.1.1.1
Packet sent with the DF bit set
Packet has IP options: Total option bytes= 39, padded length=40
Record route: <*>
(0.0.0.0)
(0.0.0.0)

Unreachable from 10.99.69.2, maximum MTU 1492, Received packet has options
Total option bytes= 39, padded length=40
Record route: <*>
(0.0.0.0)
(0.0.0.0)
<output omitted>

```

- A. R2 and R3 do not have an OSPF adjacency
- B. R3 is missing a return route to 10.99.69.0/30
- C. The maximum packet size accepted by the command is 1476 bytes
- D. The DF bit has been set

Answer: D

AAA Questions

Question 1

Which two statements about AAA authentication are true? (Choose two)

- A. RADIUS authentication queries the router's local username database
- B. TACACS+ authentication uses an RSA server to authenticate users
- C. Local user names are case-insensitive
- D. Local authentication is maintained on the router
- E. KRB5 authentication disables user access when an incorrect password is entered

Answer: D E

Question 2

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 RADIUS server is checked
- D. A local database is checked first. If that check fails, a TACACS+server is checked

Answer: D

Question 3

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 default group tacacs+
aaa session-id common
```

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

```
R1#sh run | section vty
line vty 0 4
```

```
R1#sh run | include username
R1#
```

Answer: C

Question 4

Refer to the exhibit.

```
aaa new-model
aaa authentication login authorizationlist tacacs+
tacacs-server host 192.168.0.202
tacacs-server key ciscotestkey
```

```
line vty 0 4
login authentication authorizationlist
```

What is the effect of the configuration?

- A. The device will allow users at 192.168.0.202 to connect to vty lines 0 through 4 using the password ciscotestkey
- B. The device will allow only users at 192 168.0.202 to connect to vty lines 0 through 4
- C. When users attempt to connect to vty lines 0 through 4, the device will authenticate them against TACACS+ if local authentication fails
- D. The device will authenticate all users connecting to vty lines 0 through 4 against TACACS+

Answer: D

Question 5

Refer to the exhibit.

```
aaa new-model
aaa authentication login default local-case enable
aaa authentication login ADMIN local-case
username CCNP secret Str0ngP@ssw0rd!
line 0 4
login authentication ADMIN
```

An engineer must create a configuration that executes the show run command and then terminates the session when user CCNP logs in. Which configuration change is required?

- A. Add the autocommand keyword to the aaa authentication command
- B. Assign privilege level 15 to the CCNP username
- C. Add the access-class keyword to the aaa authentication command
- D. Assign privilege level 14 to the CCNP username
- E. Add the access-class keyword to the username command
- F. Add the autocommand keyword to the username command

Answer: F

Question 6

Refer to the exhibit.

```
aaa new-model
aaa authentication login local tacacs+
tacacs-server host 10.1.1.1
tacacs-server key CISCO

line con 0
 login authentication local
line aux 0
line vty 0 4
!
username tommy password 0 Cisco
end
```

TACACS+ Server Passwords

username tommy password 0 Tommy

Which password allows access to line con 0 for a username of “tommy” under normal operation?

- A. Cisco
- B. local
- C. 0 Cisco
- D. Tommy

Answer: A

GRE Tunnel Questions

<https://www.digitaltut.com/gre-tunnel-questions>

Question 1

Which two GRE features are configured to prevent fragmentation? (Choose two)

- A. TCP window size
- B. TCP MSS
- C. IP MTU
- D. DF bit Clear
- E. MTU ignore
- F. PMTUD

Answer: B F

Question 2

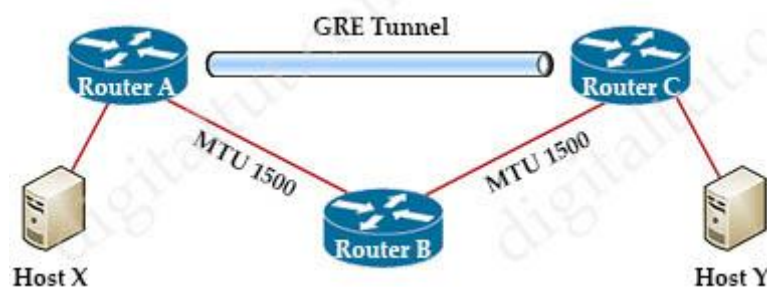
Which TCP setting is tuned to minimize the risk of fragmentation on a GRE/IP tunnel?

- A. MTU
- B. Window size
- C. MRU
- D. MSS

Answer: D

Question 3

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.

Answer: D

Question 4

Which statement about dynamic GRE between a headend router and a remote router is true?

- A. The headend router learns the IP address of the remote end router statically
- B. A GRE tunnel without an IP address has a status of administratively down
- C. GRE tunnels can be established when the remote router has a dynamic IP address
- D. The remote router initiates the tunnel connection

Answer: D

Question 5

A GRE tunnel is down with the error message %TUN-5-RECUR DOWN:

Tunnel0 temporarily disabled due to recursive routing error.

Which two options describe possible causes of the error? (Choose two)

- A. Incorrect destination IP addresses are configured on the tunnel
- B. There is link flapping on the tunnel
- C. There is instability in the network due to route flapping
- D. The tunnel mode and tunnel IP address are misconfigured
- E. The tunnel destination is being routed out of the tunnel interface

Answer: C E

Question 6

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

```
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. 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.

Answer: C

Question 7

Refer to the exhibit.

```
Router1#
Router1#show run int tunnel 0
Building configuration...

Current configuration : 93 bytes
!
interface Tunnel0
 ip address 172.16.1.1 255.255.255.0
 tunnel destination 192.168.10.2
end

Router1#show ip int brief
```

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

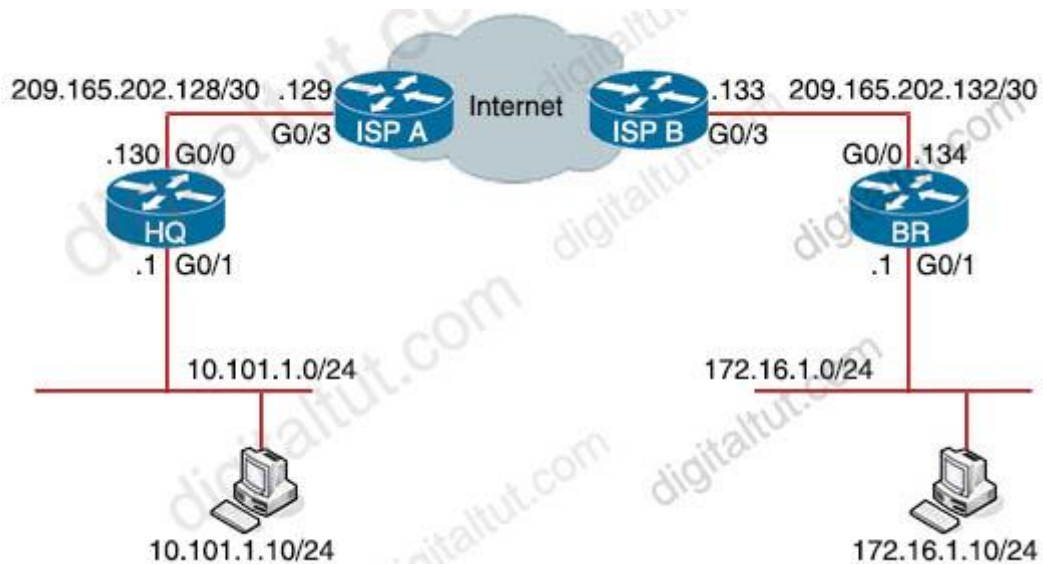
Which command must be applied to Router1 to bring the GRE tunnel to an up/up state?

- A. Router1(config-if)#tunnel source Loopback0
- B. Router1(config-if)#tunnel source GigabitEthernet0/1
- C. Router1(config-if)#tunnel mode gre multipoint
- D. Router1(config)#interface tunnel0

Answer: A

Question 8

Refer to the exhibit.



```

> Frame 24: 138 bytes on wire (1104 bits), 138 bytes captured (1104 bits)
on interface 0
> Ethernet II, Src: 50:00:00:01:00:01 (50:00:00:01:00:01), Dst:
50:00:00:02:00:01 (50:00:00:02:00:01)
> Internet Protocol Version 4, Src: 209.165.202.130, Dst: 209.165.202.134
> Generic Routing Encapsulation (IP)
> Internet Protocol Version 4, Src: 10.111.111.1, Dst: 10.111.111.2
> Internet Control Message Protocol

```

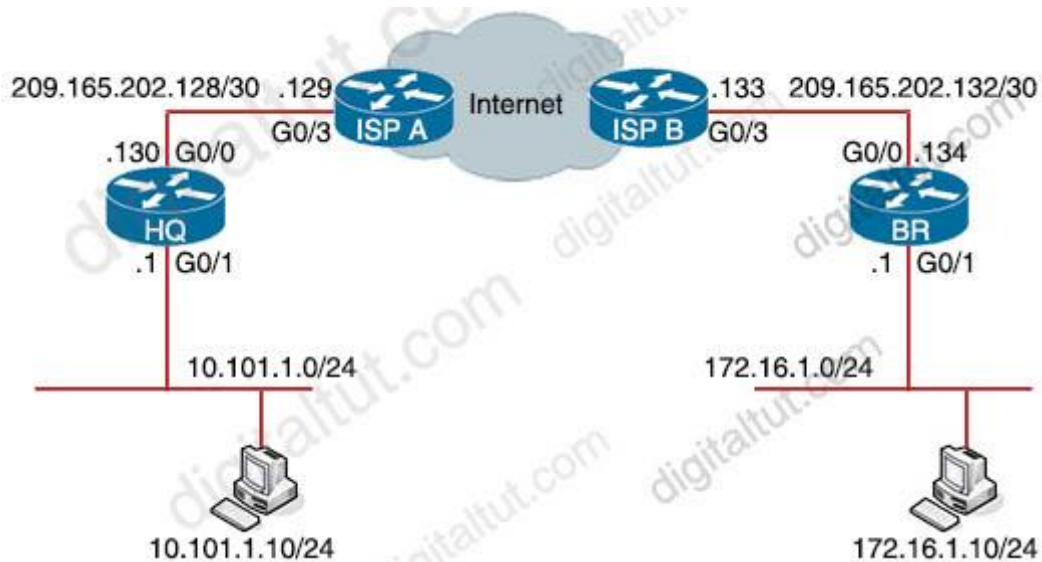
A GRE tunnel has been created between HQ and BR routers. What is the tunnel IP on the HQ router?

- A. 209.165.202.130
- B. 10.111.111.2
- C. 10.111.111.1
- D. 209.165.202.134

Answer: C

Question 9

Refer to the exhibit.



Option A

```
interface Tunnel1
ip address 209.165.202.130 255.255.255.252
tunnel source GigabitEthernet0/0
tunnel destination 209.165.202.129
```

Option B

```
interface Tunnel1
ip address 10.111.111.1 255.255.255.0
tunnel source GigabitEthernet0/0
tunnel destination 209.165.202.133
```

Option C

```
interface Tunnel1
ip address 10.111.111.1 255.255.255.0
tunnel source GigabitEthernet0/0
tunnel destination 209.165.202.134
```

Option D

```
interface Tunnel1
ip address 10.111.111.1 255.255.255.0
tunnel source GigabitEthernet0/0
tunnel destination 209.165.202.129
```

Which configuration must be applied to the HQ router to set up a GRE tunnel between the HQ and BR routers?

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

Answer: C

Question 10

Which IPv6 migration method relies on dynamic tunnels that use the 2002::/16 reserved address space?

- A. 6RD
- B. 6to4
- C. ISATAP
- D. GRE

Answer: B

NAT Questions

<https://www.digitaltut.com/nat-questions-2>

Question 1

Refer to the exhibit.

```
access-list 1 permit 172.16.1.0 0.0.0.255  
ip nat inside source list 1 interface gigabitethernet0/0 overload
```

The inside and outside interfaces in the NAT configuration of this device have been correctly identified. What is the effect of this configuration?

- A. dynamic NAT
- B. static NAT
- C. PAT
- D. NAT64

Answer: C

Question 2

Refer to the exhibit. What are two effect of this configuration? (Choose two)

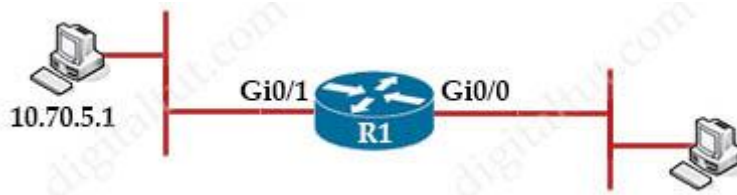
```
access-list 1 permit 10.1.1.0 0.0.0.31  
ip nat pool CISCO 209.165.201.1 209.165.201.30 netmask 255.255.255.224  
ip nat inside source list 1 pool CISCO
```

- A. Inside source addresses are translated to the 209.165.201.0/27 subnet
- B. It establishes a one-to-one NAT translation
- C. The 10.1.1.0/27 subnet is assigned as the inside global address range
- D. The 209.165.201.0/27 subnet is assigned as the outside local address range
- E. The 10.1.1.0/27 subnet is assigned as the inside local addresses

Answer: A E

Question 3

Refer to the exhibit.



```
R1(config)# ip nat inside source static 10.70.5.1 10.45.1.7
```

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 nat outside
```

```
R1(config)#interface GigabitEthernet0/1
```

```
R1(config)#ip nat 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 nat inside
```

```
R1(config)#interface GigabitEthernet0/1
```

```
R1(config)#ip nat outside
```

Answer: B

Question 4

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
!

```

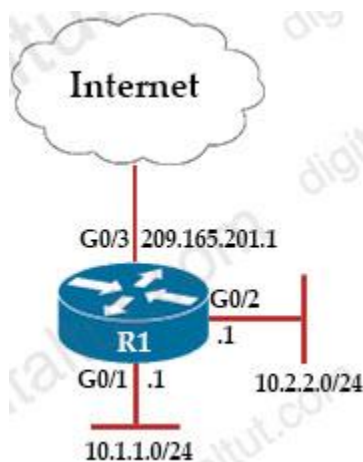
Which command allows hosts that are connected to FastEthernet0/2 to access the Internet?

- A. ip nat inside source list 10 interface FastEthernet0/1 overload
- B. ip nat outside source static 209.165.200.225 10.10.10.0 overload
- C. ip nat inside source list 10 interface FastEthernet0/2 overload
- D. ip nat outside source list 10 interface FastEthernet0/2 overload

Answer: A

Question 5

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?

Option A

```

access-list 10 permit 10.2.2.0 0.0.0.255

interface G0/3
ip nat outside

```

Option B

```

access-list 10 permit 10.2.2.0 0.0.0.255

interface G0/3
ip nat outside

```

<pre>interface G0/2 ip nat inside ip nat inside source list 10 interface G0/2 overload</pre>	<pre>interface G0/2 ip nat inside ip nat inside source list 10 209.165.201.1</pre>
Option C <pre>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</pre>	Option D <pre>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 overload</pre>

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

Answer: D

STP Questions

<https://www.digitaltut.com/stp-questions>

Question 1

What is the primary effect of the spanning-tree portfast command?

- A. It enables BPDU messages
- B. It minimizes spanning-tree convergence time
- C. It immediately puts the port into the forwarding state when the switch is reloaded
- D. It immediately enables the port in the listening state

Answer: B

Question 2

Refer to the exhibit.



An engineer reconfigures the port-channel between SW1 and SW2 from an access port to a trunk and immediately notices this error in SW1's log.

```
%PM-SP-4-ERR_DISABLE: bpduguard error detected on Gi0/0, putting Gi0/0 in err-disable state.
```

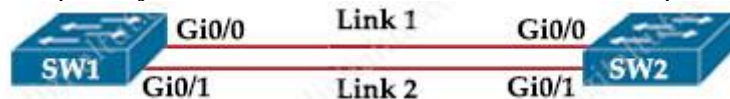
Which command set resolves this error?

- A.
 Sw1(config)# interface G0/0
 Sw1(config-if)# no spanning-tree bpduguard enable
 Sw1(config-if)# shut
 Sw1(config-if)# no shut
- B.
 Sw1(config)# interface G0/0
 Sw1(config-if)# spanning-tree bpduguard enable
 Sw1(config-if)# shut
 Sw1(config-if)# no shut
- C.
 Sw1(config)# interface G0/1
 Sw1(config-if)# spanning-tree bpduguard enable
 Sw1(config-if)# shut
 Sw1(config-if)# no shut
- D.
 Sw1(config)# interface G0/0
 Sw1(config-if)# no spanning-tree bpdufilter
 Sw1(config-if)# shut
 Sw1(config-if)# no shut

Answer: A

Question 3

Refer to the exhibit. Link1 is a copper connection and Link2 is a fiber connection. The fiber port must be the primary port for all forwarding. The output of the show spanning-tree command on SW2 shows that the fiber port is blocked by spanning tree. An engineer enters the spanning-tree port-priority 32 command on G0/1 on SW2, but the port remains blocked.



SW2#show spanning-tree

```

VLAN0010
  Spanning tree enabled protocol ieee
  Root ID      Priority 24596
              Address 0018.7363.4300
              Cost     2
              Port     13 (GigabitEthernet0/0)
              Hello Time 2 sec Max Age 20 sec Forward Delay 15 sec

  Bridge ID      Priority 28692 (priority 28672 sys-id-ext 20)
              Address 001b.0d8e.e080
              Hello Time 2 sec Max Age 20 sec Forward Delay 15 sec
              Aging Time 300 sec

Interface  Role  Sts  Cost Prio.Nbr  Type
-----
Gi0/0      Root  FWD   4    128.1    P2p
Gi0/1      Atln  BLK   4    32.2     P2p

```

Which command should be entered on the ports that are connected to Link2 to resolve the issue?

- A. Enter spanning-tree port-priority 32 on SW1
- B. Enter spanning-tree port-priority 224 on SW1
- C. Enter spanning-tree port-priority 4 on SW2
- D. Enter spanning-tree port-priority 64 on SW2

Answer: A

Question 4

What would be the preferred way to implement a loopless switch network where there are 1500 defined VLANs and it is necessary to load the shared traffic through two main aggregation points based on the VLAN identifier?

- A. 802.1D
- B. 802.1s
- C. 802.1W
- D. 802.1AE

Answer: B

Question 5

Refer to the exhibit. Which two commands ensure that DSW1 becomes root bridge for VLAN 10 and 20? (Choose two)

DSW1#show spanning-tree

MST1

Spanning tree enabled protocol mstp

Root ID Priority 32769
 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 32769 (priority 32768 sys-id- ext 1)
 Address 001b.0d8e.e080
 Hello Time 2 sec Max Age 20 sec Forward Delay 15 sec

Interface	Role	Sts	Cost	Prio.Nbr	Type
Fa1/0/7	Desg FWD	2	128.1		P2p Bound (PVST)
Fa1/0/10	Desg FWD	2	128.12		P2p Bound (PVST)
Fa1/0/11	Root FWD	2	128.13		P2p
Fa1/0/12	Altn BLK	2	128.14		P2p

DSW1#show spanning-tree mst

MST1 vlans mapped: 10,20
Bridge address 001b.0d0e.e000 priority 32769 (32768 sysid 1)
Root address 0018.7363.4300 priority 32769 (32768 sysid 1)
 port Fa1/0/11 cost 2 (rem hops 19)

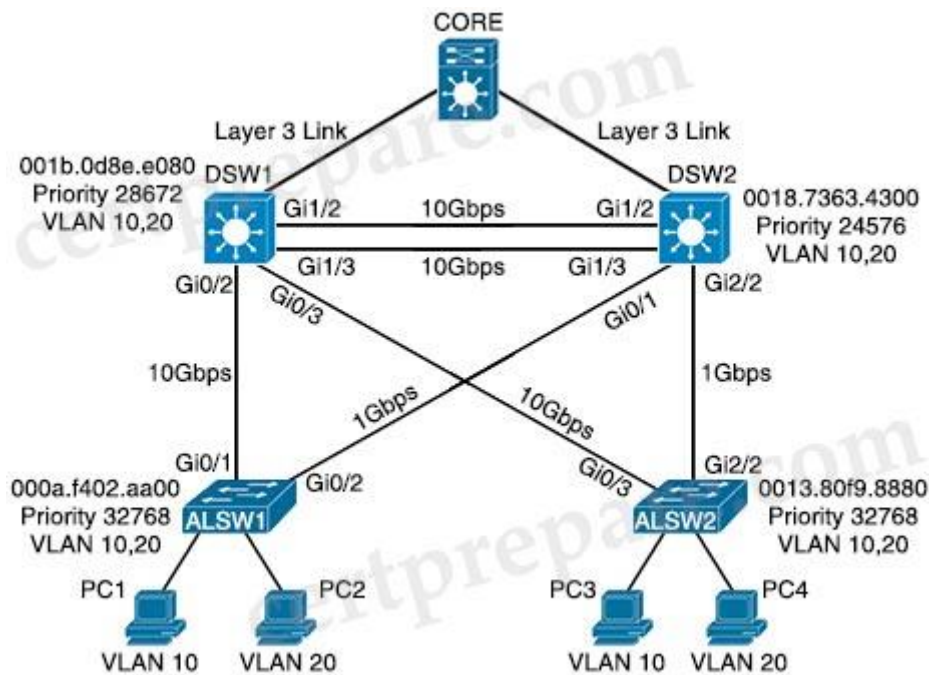
----- output omitted -----

- A. spanning-tree mstp 1 priority 0
- B. spanning-tree mst 1 root primary
- C. spanning-tree mst vlan 10,20 priority root
- D. spanning-tree mst 1 priority 4096
- E. spanning-tree mst 1 priority 1
- F. spanning-tree mstp vlan 10,20 root primary

Answer: B D

Question 6

Refer to the exhibit. Assuming all links are functional, which path does PC1 take to reach DSW1?



- A. PC1 goes from ALSW1 to DSW1
- B. PC1 goes from ALSW1 to DSW2 to ALSW2 to DSW1
- C. PC1 goes from ALSW1 to DSW2 to Core to DSW1
- D. PC1 goes from ALSW1 to DSW2 to DSW1

Answer: D

Question 7

In a traditional 3 tier topology, an engineer must explicitly configure a switch as the root bridge and exclude it from any further election process for the spanning-tree domain. Which action accomplishes this task?

- A. Configure the spanning-tree priority to 32768
- B. Configure root guard and portfast on all access switch ports
- C. Configure BPDU guard in all switch-to-switch connections
- D. Configure the spanning-tree priority equal to 0

Answer: B

Question 8

Refer to the exhibit.

```
DSW2#sh spanning-tree vlan 10

VLAN0010
  Spanning tree enabled protocol ieee
  Root ID          Priority 10
                 Address 0018.7363.4300
                 Cost     2
                 Port     9 (FastEthernet1/0/7)
                 Hello Time 2 sec Max Age 20 sec
                 Forward Delay 15 sec

  Bridge ID Priority 4106 (priority 4096 sys-id-ext 10)
         Address 001b.0d8e.e080
         Hello Time 2 sec Max Age 20 sec
         Forward Delay 15 sec
         Aging Time 300 sec

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

```
DSW2#
*Mar 3 09:33:23.234: #SPANTREE-2-BLOCK_BPDUGUARD: Received BPDU on port
Fa1/0/7 with BPDU Guard enabled. Disabling port.
*Mar 3 09:33:23.234: %PM-4-ERR_DISABLE: bpduguard error detected on Fa1/0/7,
putting Fa1/0/7 in err-disable state
*Mar 3 09:33:23.678: %SPANTREE-2-BLOCK_BPDUGUARD: Received BPDU on port
Fa1/0/7 with BPDU Guard enabled. Disabling port.
*Mar 3 09:33:23.679: %LINEPROTO-5-UPDOWN: Line protocol on Interface
FastEthernet1/0/7, changed state to down
*Mar 3 09:33:23.701: %LINK-3-UPDOWN: Interface FastEthernet1/0/7, changed state to
down
```

An engineer entered the **no spanning-tree bpduguard enable** on interface fa1/0/7 command. Which statement describes the effect of this command?

- A. Fa1/0/7 remains in err-disabled state until the shutdown/no shutdown command is entered in the interface configuration mode
- B. Interface Fa1/0/7 remains in err-disabled state until the errdisable recovery cause bpduguard command is entered in the interface configuration mode
- C. Fa1/0/7 remains in err-disabled state until the errdisable recovery bpduguard command is entered in the interface configuration mode
- D. Interface Fa1/0/7 remains in err-disabled state until the spanning-tree portfast bpduguard disable command is entered in the interface configuration mode
- E. Interface Fa1/0/7 returns to an up and operational state

Answer: A

DNA Center Questions

<https://www.digitaltut.com/dna-center-questions>

Question 1

At which layer does Cisco DNA Center support REST controls?

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

Answer: D

Question 2

Which two steps are required for a complete Cisco DNA Center upgrade? (Choose two)

- A. golden image selection
- B. automation backup
- C. proxy configuration
- D. application updates
- E. system update

Answer: D E

Question 3

Which tool is used in Cisco DNA Center to build generic configurations that are able to be applied on device with similar network settings?

- A. Command Runner
- B. Template Editor
- C. Application Policies
- D. Authentication Template

Answer: B

Question 4

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

Answer: C

Question 5

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

Answer: C

Question 6

An engineer uses the Design workflow to create a new network infrastructure in Cisco DNA Center. How is the physical network device hierarchy structured?

- A. by location
- B. by role
- C. by organization
- D. by hostname naming convention

Answer: A

Question 7

Which three methods does Cisco DNA Center use to discover devices? (Choose three)

- A. CDP
- B. LLDP
- C. SNMP
- D. ping
- E. NETCONF
- F. a specified range of IP addresses

Answer: A B F

Question 8

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

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

Answer: A D

Question 9

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 obtains MIBs from each vendor that details the APIs available.
- C. It uses an API call to interrogate the devices and register the returned data.
- D. It imports available APIs for the non-Cisco device in a CSV format.

Answer: A

Question 10

Refer to the exhibit.



Cisco DNA Center has obtained the username of the client and the multiple devices that the client is using on the network. How is Cisco DNA Center getting these context details?

- A. Those details are provided to Cisco DNA Center by the Identity Services Engine
- B. The administrator had to assign the username to the IP address manually in the user database tool on Cisco DNA Center
- C. User entered those details in the Assurance app available on iOS and Android devices
- D. Cisco DNA Center pulled those details directly from the edge node where the user connected

Answer: A

Security Questions

<https://www.digitaltut.com/security-questions-2>

Question 1

Refer to the exhibit. Which privilege level is assigned to VTY users?

```
R1# sh run | begin line con
line con 0
  exec-timeout 0 0
  privilege level 15
  logging synchronous
  stoppbits 1
line aux 0
  exec-timeout 0 0
  privilege level 15
  logging synchronous
  stoppbits 1
line vty 0 4
  password 7 03384737389E938
  login
line vty 5 15
  password 7 03384737389E938
  login
!
end
```

```
R1#sh run | include aaa | enable
no aaa new-model
R1#
```

- A. 1
- B. 7
- C. 13
- D. 15

Answer: A

Question 2

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

Answer: A

Question 3

Which feature does Cisco TrustSec use to provide scalable, secure communication throughout a network?

- A. security group tag ACL assigned to each port on a switch
- B. security group tag number assigned to each port on a network
- C. security group tag number assigned to each user on a switch
- D. security group tag ACL assigned to each router on a network

Answer: C

Question 4

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

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

Answer: C

Question 5

What is the difference between the enable password and the enable secret password when password encryption is enable on an IOS device?

- A. The enable password is encrypted with a stronger encryption method
- B. There is no difference and both passwords are encrypted identically
- C. The enable password cannot be decrypted
- D. The enable secret password is protected via stronger cryptography mechanisms

Answer: D

Question 6

Which NGFW mode block flows crossing the firewall?

- A. Passive
- B. Tap
- C. Inline tap
- D. Inline

Answer: D

Question 7

Which method does the enable secret password option use to encrypt device passwords?

- A. AES
- B. CHAP
- C. PAP
- D. MD5

Answer: D

Question 8

An engineer must protect their company against ransom ware attacks. Which solution allows the engineer to block the execution stage and prevent file encryption?

- A. Use Cisco AMP deployment with the Malicious Activity Protection engine enabled
- B. Use Cisco AMP deployment with the Exploit Prevention engine enabled
- C. Use Cisco Firepower and block traffic to TOR networks
- D. Use Cisco Firepower with Intrusion Policy and snort rules blocking SMB exploitation

Answer: A

Question 9

Which deployment option of Cisco NGFW provides scalability?

- A. tap
- B. clustering

- C. inline tap
- D. high availability

Answer: B

Question 10

Refer to the exhibit.

```
Router#sh run | b vty
```

```
line vty 0 4
  session-timeout 30
  exec-timeout 20 0
  session-limit 30
  login local
line vty 5 15
  session-timeout 30
  exec-timeout 20 0
  session-limit 30
  login local
```

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

- A. line vty 0 15
exec-timeout 10 0
- B. line vty 0 15
exec-timeout
- C. line vty 0 15
absolute-timeout 600
- D. line vty 0 4
exec-timeout 600

Answer: A

Question 11

Refer to the exhibit.



An engineer is designing a guest portal on Cisco ISE using the default configuration. During the testing phase, the engineer receives a warning when displaying the guest portal. Which issue is occurring?

- A. The server that is providing the portal has an expired certificate
- B. The server that is providing the portal has a self-signed certificate
- C. The connection is using an unsupported protocol
- D. The connection is using an unsupported browser

Answer: B

Access-list Questions

<https://www.digitaltut.com/access-list-questions>

Question 1

Which standard access control entry permits from odd-numbered hosts in the 10.0.0.0/24 subnet?

- A. Permit 10.0.0.0 0.0.0.1
- B. Permit 10.0.0.1 0.0.0.0

- C. Permit 10.0.0.1 0.0.0.254
- D. Permit 10.0.0.0 255.255.255.254

Answer: C

Question 2

Refer to the exhibit. An engineer must block all traffic from a router to its directly connected subnet 209.165.200.0/24. The engineer applies access control list EGRESS in the outbound direction on the GigabitEthernet0/0 interface of the router. However, the router can still ping hosts on the 209.165.200.0/24 subnet. Which explanation of this behavior is true?

```
Extended IP access list EGRESS
10 permit ip 10.0.0.0 0.0.0.255 any
!
---output omitted---
!
interface GigabitEthernet0/0
 ip address 209.165.200.255 255.255.255.0
 ip access-group EGRESS out
 duplex auto
 speed auto
 media-type rj45
!
```

- A. Access control lists that are applied outbound to a router interface do not affect traffic that is sourced from the router
- B. Only standard access control lists can block traffic from a source IP address
- C. After an access control list is applied to an interface, that interface must be shut and no shut for the access control list to take effect
- D. The access control list must contain an explicit deny to block traffic from the router

Answer: A

Question 3

A client with IP address 209.165.201.25 must access a web server on port 80 at 209.165.200.225. To allow this traffic, an engineer must add a statement to an access control list that is applied in the inbound direction on the port connecting to the web server. Which statement allows this traffic?

- A. permit tcp host 209.165.201.25 eq 80 host 209.165.200.225
- B. permit tcp host 209.165.201.25 host 209.165.200.225 eq 80
- C. permit tcp host 209.165.200.225 eq 80 host 209.165.201.25
- D. permit tcp host 209.165.200.225 host 209.165.201.25 eq 80

Answer: C

Question 4

Which access controls list allows only TCP traffic with a destination port range of 22-443, excluding port 80?

- A. Deny tcp any any eq 80
Permit tcp any any gt 21 lt 444
- B. Permit tcp any any neq 80
- C. Permit tcp any any range 22 443
Deny tcp any any eq 80
- D. Deny tcp any any neq 80
Permit tcp any any range 22 443

Answer: A (?)

Question 5

Refer to the exhibit. An engineer must modify the access control list EGRESS to allow all IP traffic from subnet 10.1.10.0/24 to 10.1.2.0/24. The access control list is applied in the outbound direction on router interface GigabitEthernet 0/1.

Extended IP access list EGRESS 10 permit ip 10.1.100.0 0.0.0.255 10.1.2.0 0.0.0.255 20 deny ip any any
--

Which configuration commands can the engineer use to allow this traffic without disrupting existing traffic flows?

A. config t
ip access-list extended EGRESS
permit ip 10.1.10.0 255.255.255.0 10.1.2.0 255.255.255.0

B. config t
ip access-list extended EGRESS
5 permit ip 10.1.10.0 0.0.0.255 10.1.2.0 0.0.0.255

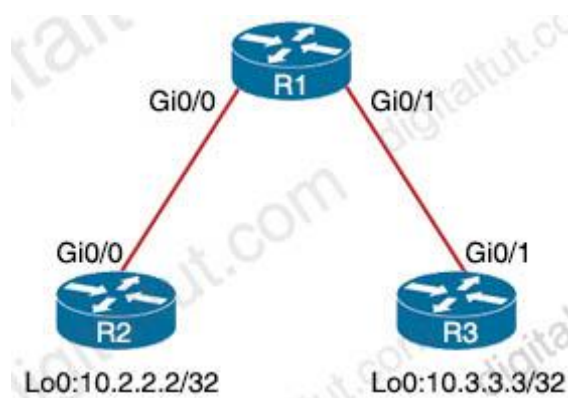
C. config t
ip access-list extended EGRESS2
permit ip 10.1.10.0 0.0.0.295 10.1.2.0 0.0.0.299
permit ip 10.1.100.0 0.0.0.299 10.1.2.0 0.0.0.299
deny ip any any
!
interface g0/1
no ip access-group EGRESS out
ip access-group EGRESS2 out

```
D. config t
ip access-list extended EGRESS
permit ip 10.1.10.0 0.0.0.255 10.1.2.0 0.0.0.255
```

Answer: B

Question 6

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 Gi0/1
R3(config-if)#ip access-group 150 out
```

B.

```
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 Gi0/1
R1(config-if)#ip access-group 150 in
```

C.

```
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 Gi0/1
```

```
R1(config-if)#ip access-group 150 in
```

D.

```
R3(config)#time-range WEEKEND
```

```
R3(config-time-range)#periodic weekend 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 Gi0/1
```

```
R3(config-if)#ip access-group 150 out
```

Answer: C

Question 7

What is the result of applying this access control list?

```
ip access-list extended STATEFUL
10 permit tcp any any established
20 deny ip any any
```

A. TCP traffic with the DF bit set is allowed

B. TCP traffic with the SYN bit set is allowed

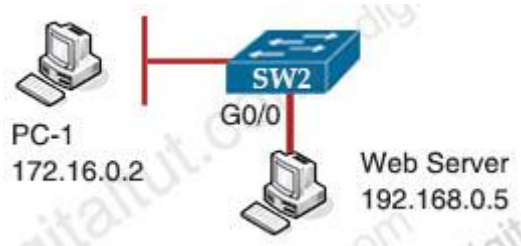
C. TCP traffic with the ACK bit set is allowed

D. TCP traffic with the URG bit set is allowed

Answer: C

Question 8

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

Answer: C

Question 9

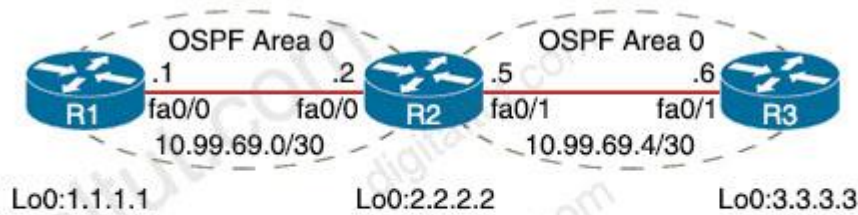
Which outbound access list, applied to the WAN interface of a router, permits all traffic except for http traffic sourced from the workstation with IP address 10.10.10.1?

- A. ip access-list extended 200
deny tcp host 10.10.10.1 eq 80 any
permit ip any any
- B. ip access-list extended 10
deny tcp host 10.10.10.1 any eq 80
permit ip any any
- C. ip access-list extended NO_HTTP
deny tcp host 10.10.10.1 any eq 80
- D. ip access-list extended 100
deny tcp host 10.10.10.1 any eq 80
permit ip any any

Answer: D

Question 10

Refer to the exhibit.



```
R1#traceroute
Protocol [ip]:
Target IP address: 3.3.3.3
Source address: 1.1.1.1
Numeric display [n]:
Timeout in seconds [3]:
Probe count [3]:
Minimum Time to Live [1]:
Maximum Time to Live [30]:
Port Number [33434]:
Loose, Strict, Record, Timestamp, Verbose[none]: Record
Number of hops [9]:
Loose, Strict, Record, Timestamp, Verbose [RV]:
Type escape sequence to abort.
```

Continued --->

```
Tracing the route to 3.3.3.3
 1 10.99.69.2 36 msec
Received packet has options
Total option bytes = 40, padded length=40
Record route:
(10.99.69.1) <*>
(0.0.0.0)
(0.0.0.0)
End of list
---output omitted---

 2 10.99.69.6 1A
Received packet has options
Total option bytes = 40, padded length=40
Record route:
(10.99.69.1)
(10.99.69.5) <*>
(0.0.0.0)
(0.0.0.0)
End of list
1A
---output omitted---
```

The traceroute fails from R1 to R3. What is the cause of the failure?

- A. An ACL applied inbound on fa0/1 of R3 is dropping the traffic
- B. An ACL applied inbound on loopback0 of R2 is dropping the traffic
- C. The loopback on R3 is in a shutdown state
- D. Redistribution of connected routes into OSPF is not configured

Answer: A

Access-list Questions 2

<https://www.digitaltut.com/access-list-questions-2>

Question 1

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

- A. access-list 110 permit tcp any any eq 21 tcp-ack
- B. access-list 10 permit ip 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

Answer: D

Question 2

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 clear-text protocols. Which configuration achieves this goal?

Option A access-list 23 permit 10.10.10.0 0.0.0.255 line vty 0 4 access-class 23 in transport input ssh	Option B access-list 23 permit 10.10.10.0 0.0.0.255 line vty 0 15 access-class 23 in transport input ssh
Option C access-list 23 permit 10.10.10.0 0.0.0.255 line vty 0 15 access-class 23 out transport input all	Option D access-list 23 permit 10.10.10.0 255.0.0.0 line vty 0 15 access-class 23 in transport input ssh

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

Answer: B

Multicast Questions

Question 1

Which statement about multicast RPs is true?

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

Answer: D

Question 2

What mechanism does PIM use to forward multicast traffic?

- A. PIM sparse mode uses a pull model to deliver multicast traffic
- B. PIM dense mode uses a pull model to deliver multicast traffic
- C. PIM sparse mode uses receivers to register with the RP
- D. PIM sparse mode uses a flood and prune model to deliver multicast traffic

Answer: A

Question 3

What is the role of the RP in PIM sparse mode?

- A. The RP responds to the PIM join messages with the source of requested multicast group
- B. The RP maintains default aging timeouts for all multicast streams requested by the receivers
- C. The RP acts as a control-plane node and does not receive or forward multicast packets
- D. The RP is the multicast that is the root of the PIM-SM shared multicast distribution tree

Answer: D

Question 4

What is the purpose of an RP in PIM?

- A. secure the communication channel between the multicast sender and receiver.
- B. ensure the shortest path from the multicast source to the receiver.
- C. receive IGMP joins from multicast receivers.
- D. send join messages toward a multicast source SPT

Answer: C

Question 5

Which router is elected the IGMP Querier when more than one router is in the same LAN segment?

- A. The router with the shortest uptime
- B. The router with the lowest IP address
- C. The router with the highest IP address
- D. The router with the longest uptime

Answer: B

NTP Questions

<https://www.digitaltut.com/ntp-questions-2>

Question 1

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

Answer: B

Question 2

Which two security features are available when implementing NTP? (Choose two)

- A. encrypted authentication mechanism
- B. clock offset authentication
- C. broadcast association mode
- D. access list based restriction scheme
- E. symmetric server passwords

Answer: A D

Question 3

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

Answer: D E

Question 4

Why would a log file contain a * next to the date?

- A. The network device is not configured to use NTP time stamps for logging.
- B. The network device was unable to reach the NTP server when the log messages were recorded.
- C. The network device is not configured to use NTP
- D. The network device was receiving NTP time when the log messages were recorded

Answer: B

CoPP Questions

<https://www.digitaltut.com/copp-questions>

Question 1

Which configuration restricts the amount of SSH that a router accepts 100 kbps?

Option A

```
class-map match-all CoPP_SSH
match access-group name CoPP_SSH
!
policy-map CoPP_SSH
class CoPP_SSH
  police cir 100000
  exceed-action drop
!
!
!
interface GigabitEthernet0/1
ip address 209.165.200.225 255.255.255.0
```

Option B

```
class-map match-all CoPP_SSH
match access-group name CoPP_SSH
!
policy-map CoPP_SSH
class CoPP_SSH
  police cir CoPP_SSH
  exceed-action drop
!
!
!
interface GigabitEthernet0/1
ip address 209.165.200.225 255.255.255.0
```

<pre> ip access-group CoPP_SSH out duplex auto speed auto media-type rj45 service-policy input CoPP_SSH ! ip access-list extended CoPP_SSH permit tcp any any eq 22 ! </pre>	<pre> ip access-group CoPP_SSH out duplex auto speed auto media-type rj45 service-policy input CoPP_SSH ! ip access-list extended CoPP_SSH deny tcp any any eq 22 ! </pre>
Option C <pre> class-map match-all CoPP_SSH match access-group name CoPP_SSH ! policy-map CoPP_SSH class CoPP_SSH police cir 100000 exceed-action drop ! ! ! control-plane service-policy input CoPP_SSH ! ip access-list extended CoPP_SSH permit tcp any any eq 22 ! </pre>	Option D <pre> class-map match-all CoPP_SSH match access-group name CoPP_SSH ! policy-map CoPP_SSH class CoPP_SSH police cir 100000 exceed-action drop ! ! ! control-plane transit service-policy input CoPP_SSH ! ip access-list extended CoPP_SSH permit tcp any any eq 22 ! </pre>

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

Answer: C

Question 2

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

```
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-any)
  105325 packets, 11415151 bytes
  5 minute offered rate 0 bps, drop rate 0 bps
  Match:any
```

- 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

Answer: A

Automation Questions

<https://www.digitaltut.com/automation-questions>

Question 1

Which requirement for an Ansible-managed node is true?

- A. It must be a Linux server or a Cisco device
- B. It must have an SSH server running
- C. It must support ad hoc commands.
- D. It must have an Ansible Tower installed

Answer: B

Question 2

Which statement about TLS is true when using RESTCONF to write configurations on network devices?

- A. It is provided using NGINX acting as a proxy web server
- B. It is not supported on Cisco devices
- C. It requires certificates for authentication
- D. It is used for HTTP and HTTPS requests

Answer: A

Question 3

Which two operations are valid for RESTCONF? (Choose two)

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

Answer: A D

Question 4

Which exhibit displays a valid JSON file?

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

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

C. {
 "hostname": "edge_router_1"
 "interfaces": [
 "GigabitEthernet1/1"

```
"GigabitEthernet1/2"  
"GigabitEthernet1/3"  
]  
}
```

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

Answer: D

Question 5

Which method creates an EEM applet policy that is registered with EEM and runs on demand or manually?

- A. event manager applet ondemand
event register
action 1.0 syslog priority critical msg 'This is a message from ondemand'
- B. event manager applet ondemand
event manual
action 1.0 syslog priority critical msg 'This is a message from ondemand'
- C. event manager applet ondemand
event none
action 1.0 syslog priority critical msg 'This is a message from ondemand'
- D. event manager applet ondemand
action 1.0 syslog priority critical msg 'This is a message from ondemand'

Answer: C

Question 6

What does this EEM applet event accomplish?

```
"event snmp oid 1.3.6.1.3.7.1.5.1.2.4.2.9 get-type next entry-op ge entry-val 75 poll-interval  
5"
```

- A. It issues email when the value is greater than 75% for five polling cycles
- B. It reads an SNMP variable, and when the value exceeds 75%, it triggers an action
- C. It presents a SNMP variable that can be interrogated
- D. Upon the value reaching 75%, a SNMP event is generated and sent to the trap server

Answer: B

Question 7

What is the structure of a JSON web token?

- A. three parts separated by dots header payload, and signature
- B. header and payload
- C. three parts separated by dots version header and signature
- D. payload and signature

Answer: A

Question 8

Refer to the exhibit. Which two statements about the EEM applet configuration are true? (Choose two)

```
event manager applet LARGECONFIG
  event cli pattern "show running-config" sync yes
  action 1.0 puts "Warning! This device has a VERY LARGE configuration
    and may take some time to process"
  action 1.1 puts newline "Do you wish to continue [Y/N]"
  action 1.2 gets response
  action 1.3 string toupper "$response"
  action 1.4 string match "$_string_result" "Y"
  action 2.0 if $_string_result eq 1
  action 2.1 cli command "enable"
  action 2.2 cli command "show running-config"
  action 2.3 puts $_cli_result
  action 2.4 cli command "exit"
  action 2.9 end
```

- A. The EEM applet runs before the CLI command is executed
- B. The EEM applet runs after the CLI command is executed
- C. The EEM applet requires a case-insensitive response
- D. The running configuration is displayed only if the letter Y is entered at the CLI

Answer: A D

Question 9

Refer to the exhibit. Which network script automation option or tool is used in the exhibit?

<https://mydevice.mycompany.com/getstuff?queryName=errors&queryResults=yes>

- A. EEM
- B. Python
- C. Bash script
- D. NETCONF
- E. REST

Answer: E

Question 10

Which two protocols are used with YANG data models? (Choose two)

- A. HTTPS
- B. SSH
- C. RESTCONF
- D. TLS
- E. NETCONF

Answer: C E

Question 11

Which protocol does REST API rely on to secure the communication channel?

- A. TCP
- B. HTTPS
- C. SSH
- D. HTTP

Answer: B

Question 12

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"]}}

Answer: C

Automation Questions 2

<https://www.digitaltut.com/automation-questions-2>

Question 1

Which statements are used for error handling in Python?

- A. try/catch
- B. try/except
- C. block/rescue
- D. catch/release

Answer: B

Question 2

Refer to the exhibit. Which HTTP JSON response does the python code output give?

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)I7(4)",
      "bios_cmpl_time": "04/08/2017",
      "kick_file_name": "bootflash:///nxos.7.0.3.I7.4.bin",
      "kick_cmpl_time": "6/14/1970 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_ctime": "Sun Mar 10 15:41:46 2019",
      "rr_reason": "Reset Requested by CLI command reload",
      "rr_sys_ver": "7.0(3)I7(4)",
      "rr_service": "",
      "manufacturer": "Cisco Systems, Inc",
      "TABLE_package_list": {
        "ROW_package_list": {
          "package_id": {}
        }
      }
    }
  }
}
}
}
}
}

```

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

Answer: D

Question 3

Which data modeling language is commonly used by NETCONF?

- A. HTML
- B. XML
- C. YANG
- D. REST

Answer: C

Question 4

A response code of 404 is received while using the REST API on Cisco DNA Center to POST to this URL

/dna/intent/api/v1 /template-programmer/project

What does the code mean?

- A. The client made a request a resource that does not exist
- B. The server has not implemented the functionality that is needed to fulfill the request
- C. The request accepted for processing, but the processing was not completed
- D. The POST/PUT request was fulfilled and a new resource was created, information about the resource is in the response body

Answer: A

Question 5

Which HTTP 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

Answer: C

Question 6

In which part of the HTTP message is the content type specified?

- A. HTTP method
- B. URI
- C. header
- D. body

Answer: C

Question 7

What do Cisco DNA southbound APIs provide?

- A. Interface between the controller and the network devices
- B. NETCONF API interface for orchestration communication

- C. RESTful API interface for orchestrator communication
- D. Interface between the controller and the consumer

Answer: A

Question 8

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'

Answer: C

Question 9

Refer to the exhibit. What is the JSON syntax that is formed the data?

Name is Bob Johnson Age is 76 Is alive Favorite foods are: + Cereal + Mustard + Onions
--

- A. Name: Bob, Johnson, Age: 76, Alive: true, Favourite Foods. [Cereal, "Mustard", "Onions"]
- B. Name, "Bob Johnson", "Age", 76, "Alive", true, "favourite Foods", ["Cereal, "Mustard", Onions"]
- C. Name, 'Bob Johnson,' 'Age', 76, 'Alive', true, 'favourite Foods' 'Cereal Mustard',

'Onions'}
D. Name", "Bob Johnson", "Age": Seventysix, "Alive" true, "favourite Foods" ,[Cereal"
"Mustard" "Onions"]}
E. {"Name": "Bob Johnson", "age": 76, "alive": true, "favorite
foods": ["Cereal", "Mustard", "Onions"]}

Answer: E

Question 10

Which statement about agent-based versus agentless configuration management tools is true?

- A. Agentless tools require no messaging systems between master and slaves.
- B. Agentless tools use proxy nodes to interface with slave nodes.
- C. Agent-based tools do not require a high-level language interpreter such as Python or Ruby on slave nodes.
- D. Agent-based tools do not require installation of additional software packages on the slave nodes.

Answer: A

Question 11

What is a benefit of data modeling languages like YANG?

- A. They enable programmers to change or write their own application within the device operating system.
- B. They create more secure and efficient SNMP OIDs.
- C. They make the CLI simpler and more efficient.
- D. They provide a standardized data structure, which results in configuration scalability and consistency.

Answer: D

Question 12

Which variable in an EEM applet is set when you use the sync yes option?

- A. \$_cli_result
- B. \$_result
- C. \$_string_result
- D. \$_exit_status

Answer: D

Automation Questions 3

<https://www.digitaltut.com/automation-questions-3>

Question 1

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

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

Answer: C

Question 2

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

Answer: D

Question 3

A network administrator is preparing a Python script 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 the client manager in prevent colleague making changes to the device while the script is running?

- A. `m.lock(config='running')`
- B. `m.lock(target='running')`
- C. `m.freeze(target='running')`
- D. `m.freeze(config='running')`

Answer: B

Question 4

Which method of account authentication does OAuth 2.0 within REST APIs?

- A. username/role combination
- B. access tokens
- C. cookie authentication
- D. basic signature workflow

Answer: B

Question 5

Which characteristic distinguishes Ansible from Chef?

- A. Ansible lacks 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

Answer: C

Question 6

Refer to the exhibit. An engineer is using XML in an application to send information to a RESTCONF-enabled device. After sending the request, the engineer gets this response message and a HTTP response code of 400. What do these responses tell the engineer?

```
<errors xmlns="urn:ietf:params:xml:ns:yang:ietf-restconf">
  <error>
    <error-message>End-of-file reached in XML
stream</error-message>
    <error-path>/ietf-interfaces:interfaces/interface=Giga
bitEthernet2</error-path>
    <error-tag>malformed-message</error-tag>
    <error-type>application</error-type>
  </error>
</errors>
```

- A. POST was used instead of PUT to update
- B. The Accept header sent was application/xml
- C. The Content-Type header sent was application/xml.
- D. JSON body was used

Answer: B

Question 7

How is a data modeling language used?

- A. To enable data to 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

Answer: A

Question 8

Refer to the exhibit. What does the error message relay to the administrator who is trying to configure a Cisco IOS device?

```
<?xml version="1.0" encoding="utf-8"?>
  <data xmlns="urn:ietf:params:xml:ns:netconf:base:1.0"/>
```

- A. A NETCONF request was made for a data model that does not exist.
- B. The device received a valid NETCONF request and serviced it without error.
- C. A NETCONF message with valid content based on the YANG data models was made, but the request failed.
- D. The NETCONF running datastore is currently locked.

Answer: A

Question 9

Refer to the exhibit. What does the snippet of code achieve?

```
with manager.connect(host=192.168.0.1, port=22,
    username='admin', password='password1', hostkey_verify=True,
    device_params={'name':'nexus'}) as m:
```

- A. It creates an SSH connection using the SSH key that is stored and the password is ignored
- B. It creates a temporary connection to a Cisco Nexus device and retrieves a token to be used for API calls
- C. It opens an ncclient connection to a Cisco Nexus device and maintains it for the duration of the context
- D. It opens a tunnel and encapsulates the login information, if the host key is correct

Answer: C

Question 10

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

Answer: C

Question 11

Refer to the exhibit.

Make is Gocar Model is Zoom Features are + Power Windows + Manual Drive + Auto AC
--

What is the JSON syntax that is formed from the data?

- A. Make":'Gocar, "Model": "Zoom", "Features": ["Power Windows", "Manual Dnve", "Auto AC"]}
- B. ("Make":["Gocar", "Model": "Zoom"], Features": ["Power Windows", "Manual Drive", "Auto AC"]}
- C. {"Make": Gocar, "Model": Zoom, "Features": Power Windows, Manual Drive, Auto AC}
- D. "Make": "Gocar", "Model": "Zoom", "Features": ["Power Windows", "Manual Drive", "Auto AC"]

Answer: D

Miscellaneous Questions

<https://www.digitaltut.com/miscellaneous-questions-2>

Question 1

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

Answer: C D

Question 2

Which action is performed by Link Management Protocol in a Cisco stackwise virtual domain?

- A. It discovers the stackwise domain and brings up SVL interfaces
- B. It rejects any unidirectional link traffic forwarding
- C. It determines if the hardware is compatible to form the stackwise virtual domain
- D. It determines which switch becomes active or standby

Answer: B

Question 3

An engineer reviews a router's logs and discovers the following entry. What is the event's logging severity level?

```
Router# *Feb 03 11:13:44 334: %LINK-3-UPDOWN: Interface GigabitEthernet0/1,
changed state to up
```

- A. error
- B. notification
- C. informational
- D. warning

Answer: A

Question 4

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

Answer: C

Question 5

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

- A. must be combined with NSF to support uninterrupted Layer 2 operations
- B. must be combined with NSF to support uninterrupted Layer 3 operations
- C. both supervisors must be configured separately
- D. the multicast state is preserved during switchover
- E. requires synchronization between supervisors in order to guarantee continuous connectivity

Answer: B E

Drag Drop Questions

<https://www.digitaltut.com/drag-drop-questions>

Question 1

Drag and drop the characteristics from the left onto the correct routing protocol types on the right.

	OSPF
supports unequal path load balancing	
link state routing protocol	
distance vector routing protocol	
metric is based on delay and bandwidth by default	EIGRP
makes it easy to segment the network logically	
constructs three tables as part of its operation: neighbor table, topology table and routing table	

Answer:

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 is based on delay and bandwidth by default

Question 2

Drag and drop the characteristics from the left onto the correct infrastructure deployment types on the right.

customizable hardware, purpose-built systems	On Premises
easy to scale and upgrade	
more suitable for companies with specific regulatory or security requirements	
resources can be over or underutilized as requirements vary	Cloud
requires a strong and stable internet connection	
built-in, automated data backups and recovery	

Answer:

On Premises:

- + resources can be over or underutilized as requirements vary
- + customizable hardware, purpose-built systems
- + more suitable for companies with specific regulatory or security requirements

Cloud:

- + easy to scale and upgrade
- + requires a strong and stable internet connection
- + built-in, automated data backups and recovery

Question 3

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

	Traffic Policing
causes TCP retransmission when traffic is dropped	
buffers excessive traffic	
introduces no delay and jitter	
introduces delay and jitter	Traffic Shaping
drops excessive traffic	
typically delays, rather than drops traffic	

Answer:

Traffic Policing:

- + introduces no delay and jitter
- + drops excessive traffic
- + causes TCP retransmission when traffic is dropped

Traffic Shaping:

- + buffers excessive traffic
- + introduces delay and jitter
- + typically delays, rather than drops traffic

Question 4

Drag and drop the LISP components from the left onto the function they perform on the right. Not all options are used.

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	

Answer:

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

Question 5

Drag and Drop the descriptions from the left onto the routing protocol they describe on the right.

summaries can be created anywhere in the IGP topology	OSPF
uses areas to segment a network	
DUAL algorithm	
summarizes can be created in specific parts of the IGP topology	EIGRP

Answer:

OSPF:

- + uses areas to segment a network
- + summarizes can be created in specific parts of the IGP topology

EIGRP:

- + summaries can be created anywhere in the IGP topology
- + DUAL algorithm

Question 6

Drag and drop the REST API authentication method from the left to the description on the right.

HTTP basic authentication	public API resource
token-based authentication	username and password in an encoded string
secure vault	API-dependent secret
OAuth	authorization through identity provider

Answer:

- + public API resource: secure vault
- + username and password in an encoded string: HTTP basic authentication
- + API-dependent secret: token-based authentication
- + authorization through identity provider: OAuth

Question 7

Drag and drop the QoS mechanisms from the left to the correct descriptions on the right.

DSCP	bandwidth management technique which delays datagrams
policy map	mechanism to create a scheduler for packets prior to forwarding
shaping	portion of the IP header used to classify packets
service policy	mechanism to apply a QoS policy to an interface
policing	tool to enforce rate-limiting on ingress/egress
CoS	portion of the 802.1Q header used to classify packets

Answer:

- + bandwidth management technique which delays datagrams: shaping
- + mechanism to create a scheduler for packets prior to forwarding: policy map
- + portion of the IP header used to classify packets: DSCP
- + mechanism to apply a QoS policy to an interface: service policy
- + tool to enforce rate-limiting on ingress/egress: policing
- + portion of the 802.1Q header used to classify packets: CoS

Question 8

Drag and drop the characteristics from the left onto the correct infrastructure deployment types on the right.

significant initial investment but lower reoccurring costs	On Premises
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	Cloud
company has control over the physical security of equipment	

Answer:

On Premises:

- + significant initial investment but lower reoccurring costs
- + company has control over the physical security of equipment

Cloud:

- + pay-as-you-go model
- + very scalable and fast delivery of changes in scale
- + physical location of data can be defined in contract with provider

Question 9

Drag and drop the characteristics from the left onto the infrastructure types on the right.

slow upgrade lifecycle	On-Premises Infrastructure
low capital expenditure	
provider maintains the infrastructure	
high capital expenditure	
enterprise owns the hardware	Cloud-Hosted Infrastructure
fast upgrade lifecycle	

Answer:

On-Premises Infrastructure:

- + slow upgrade lifecycle
- + high capital expenditure
- + enterprise owns the hardware

Cloud-Hosted Infrastructure:

- + low capital expenditure
- + provider maintains the infrastructure
- + fast upgrade lifecycle

Question 10

Drag and drop the threat defense solutions from the left onto their descriptions on the right.

StealWatch	provides IPS/IDS capabilities
ESA	provides malware protection on endpoints
AMP4E	protects against email threat vector
Umbrella	performs security analytics by collecting network flows
FTD	provides DNS protection

Answer:

- + StealWatch: performs security analytics by collecting network flows
- + ESA: protects against email threat vector
- + AMP4E: provides malware protection on endpoints
- + Umbrella: provides DNS protection
- + FTD: provides IPS/IDS capabilities

Drag Drop Questions 2

<https://www.digitaltut.com/drag-drop-questions-2>

Question 1

Drag and drop the characteristics from the left onto the routing protocols they describe on the right.

Link State Protocol	OSPF
selects routes using the DUAL algorithm	
maintains alternative loop-free backup path if available	
supports only equal multipath load balancing	EIGRP
Advanced Distance Vector Protocol	
quickly computes new path upon link failure	

Answer:

OSPF

- + Link State Protocol
- + selects routes using the DUAL algorithm
- + maintains alternative loop-free backup path if available

EIGRP

- + supports only equal multipath load balancing
- + Advanced Distance Vector Protocol
- + quickly computes new path upon link failure

Question 2

Drag and drop the DHCP messages that are exchanged between a client and an AP into the order they are exchanged on the right.

DHCP Request	Step 1
DHCP Offer	Step 2
DHCP Discover	Step 3
DHCP ACK	Step 4

Answer:

- + Step 1: DHCP Discover
- + Step 2: DHCP Offer
- + Step 3: DHCP Request
- + Step 4: DHCP ACK

Question 3

Drag and drop the LIPS components on the left to the correct description on the right.

map server	IPv4 or IPv6 address of an endpoint within a LISP site
ETR	network infrastructure component that learns of EID-prefix mapping entries from an ETR
EID	de-encapsulates LISP packets coming from outside of the LISP site to destinations inside of the site

Answer:

- + IPv4 or IPv6 address of an endpoint within a LISP site: EID
- + network infrastructure component that learns of EID-prefix mapping entries from an ETR: map server
- + de-encapsulates LISP packets coming from outside of the LISP site to destinations inside of the site: ETR