Cisco

Exam Questions 200-301

Cisco Certified Network Associate

NEW QUESTION 1
- (Topic 3)
Refer to the exhibit.

```
R1# show ip route
Codes: C - connected, S - static, I - IGRP, R - RIP, M - mobile, B - BGP
       D - EIGRP, EX - EIGRP external, O - OSPF, IA - OSPF inter area
       N1 - OSPF NSSA external type 1, N2 - OSPF NSSA external type 2
       E1 - OSPF external type 1, E2 - OSPF external type 2, E - EGP
       i - IS-IS, L1 - IS-IS level-1, L2 - IS-IS level-2, * - candidate
default
       U - per-user static route, o - ODR
Gateway of last resort is not set
C   192.168.3.5 is directly connected, Loopback0
    10.0.0.0/8 is variably subnetted, 4 subnets, 2 masks
O       10.0.1.3/32 [110/100] via 192.168.0.40, 00:39:08, Serial0
C       10.0.1.0/24 is directly connected, Serial0
O       10.0.1.190/32 [110/5] via 192.168.0.35, 00:39:08, Serial0
O       10.0.1.0/24 [110/10] via 192.168.0.4, 00:39:08, Gigabit Ethernet 0/0
D       10.0.1.0/28 [90/10]  via 192.168.0.7, 00:39:08, Gigabit Ethernet 0/0
```

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

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

Answer: B

NEW QUESTION 2
- (Topic 3)
Refer to the exhibit.

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

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

```
Switch2(config)#lldp timer 60
Switch2(config)#lldp holdtime 180
```

B)

```
Switch2(config)#lldp timer 60
Switch2(config)#lldp tlv-select 180
```

C)

```
Switch2(config)#lldp timer 1
Switch2(config)#lldp holdtime 3
```

D)

```
Switch2(config)#lldp timer 1
Switch2(config)#lldp tlv-select 3
```
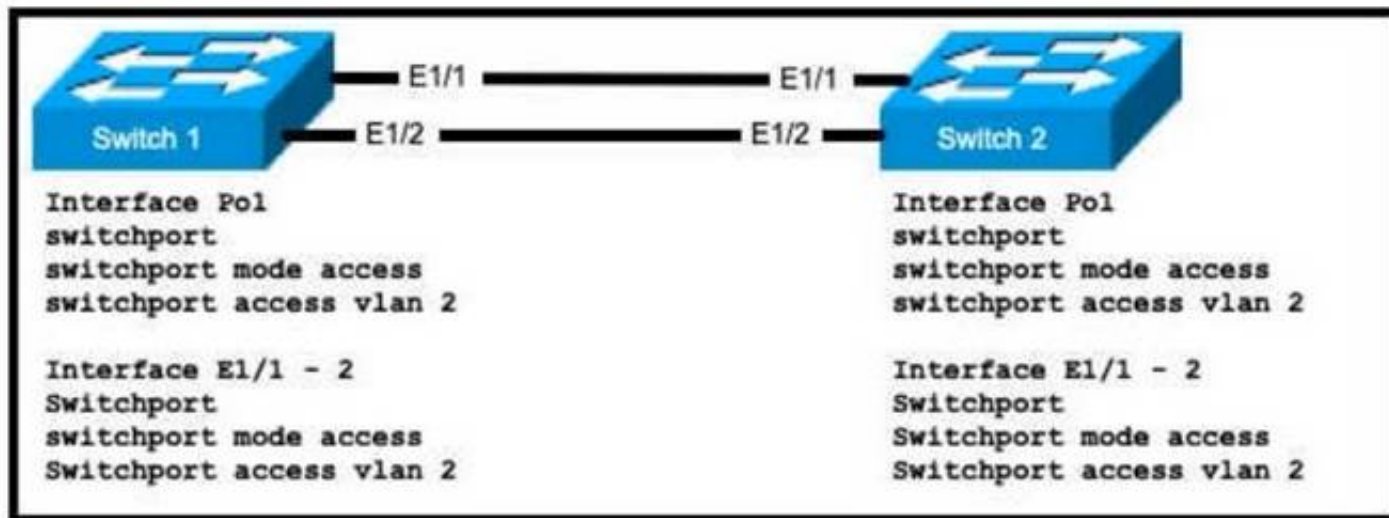
A. Option A
B. Option B
C. Option C
D. Option D

Answer: A

NEW QUESTION 3
- (Topic 3)

Refer to the exhibit.

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

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

Answer: C

NEW QUESTION 4
- (Topic 3)
R1 as an NTP server must have:
• NTP authentication enabled
• NTP packets sourced from Interface loopback 0
• NTP stratum 2
• NTP packets only permitted to client IP 209.165 200 225
How should R1 be configured?
A)
```
ntp authenticate
ntp authentication-key 2 md5 CISCO123
ntp source Loopback0
nntp access-group server-only 10
ntp master 2
!
access-list 10 permit 209.165.200.225
```

B)
```
ntp authenticate
ntp authentication-key 2 md5 CISCO123
ntp source Loopback0
ntp access-group server-only 10
ntp stratum 2
!
access-list 10 permit udp host 209.165.200.225 any eq 123
```

C)
```
ntp authenticate
ntp authentication-key 2 sha1 CISCO123
ntp source Loopback0
ntp access-group server-only 10
ntp master 2
!
access-list 10 permit udp host 209.165.200.225 any eq 123
```

D)
```
ntp authenticate
ntp authentication-key 2 md5 CISCO123
ntp interface Loopback0
ntp access-group server-only 10
```

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

Answer: B

NEW QUESTION 5
- (Topic 3)
Which type of network attack overwhelms the target server by sending multiple packets to a port until the half-open TCP resources of the target are exhausted?

A. SYIM flood
B. reflection
C. teardrop
D. amplification

Answer: A

NEW QUESTION 6
- (Topic 3)
Which interface mode must be configured to connect the lightweight APs in a centralized architecture?

A. WLAN dynamic
B. management
C. trunk
D. access

Answer: D

NEW QUESTION 7
- (Topic 3)
Which value is the unique identifier that an access point uses to establish and maintain wireless connectivity to wireless network devices?
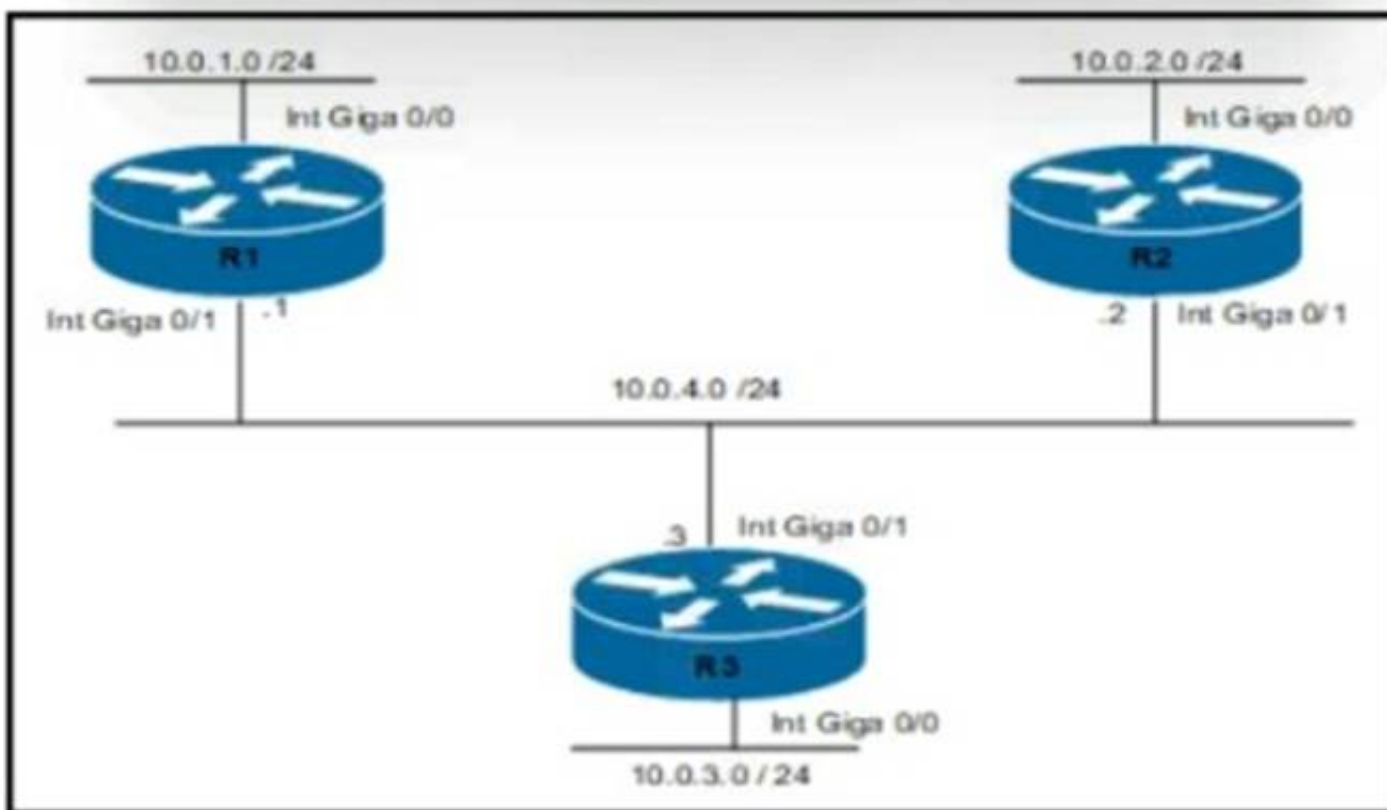
A. VLANID
B. SSID
C. RFID
D. WLANID

Answer: B

NEW QUESTION 8
- (Topic 3)
Refer to the exhibit.

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

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

Answer: B

NEW QUESTION 9
DRAG DROP - (Topic 3)
Drag and drop the threat-mitigation techniques from the left onto the types of threat or attack they mitigate on the right.

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

A. Mastered
B. Not Mastered

Answer: A

Explanation:

configure the BPDU guard feature	configure a VLAN access control list
configure the dynamic ARP inspection feature	configure the dynamic ARP inspection feature
configure the root guard feature	configure the root guard feature
configure a VLAN access control list	configure the BPDU guard feature

NEW QUESTION 10
- (Topic 3)
A network engineer must configure two new subnets using the address block 10 70 128 0/19 to meet these requirements:
• The first subnet must support 24 hosts
• The second subnet must support 472 hosts
• Both subnets must use the longest subnet mask possible from the address block Which two configurations must be used to configure the new subnets and meet a
requirement to use the first available address in each subnet for the router interfaces? (Choose two)

A. interface vlan 1234ip address 10.70.159.1 255.255.254.0
B. interface vlan 1148ip address 10.70.148.1 255.255.254.0
C. interface vlan 4722ip address 10.70.133.17 255.255.255.192
D. interface vlan 3002ip address 10.70.147.17 255.255.255.224
E. interface vlan 155ip address 10.70.155.65 255.255.255.224

Answer: BD

NEW QUESTION 10
- (Topic 3)
Refer to the exhibit.
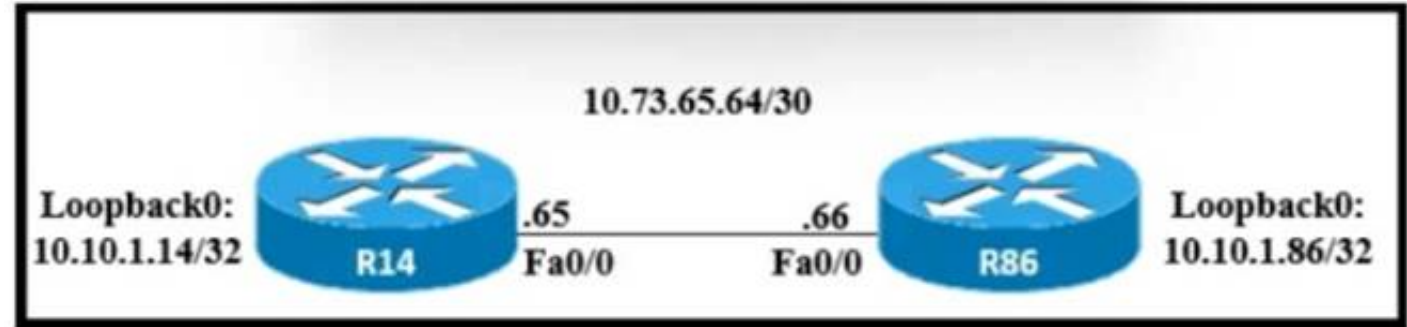
A static route must be configured on R14 to forward traffic for the 172 21 34 0/25 network that resides on R86 Which command must be used to fulfill the request?

A. ip route 172.21.34.0 255.255.255.192 10.73.65.65
B. ip route 172.21.34.0 255.255.255.0 10.73.65.65
C. ip route 172.21.34.0 255.255.128.0 10.73.65.64
D. ip route 172.21.34.0 255.255.255.128 10.73.65.66

Answer: D
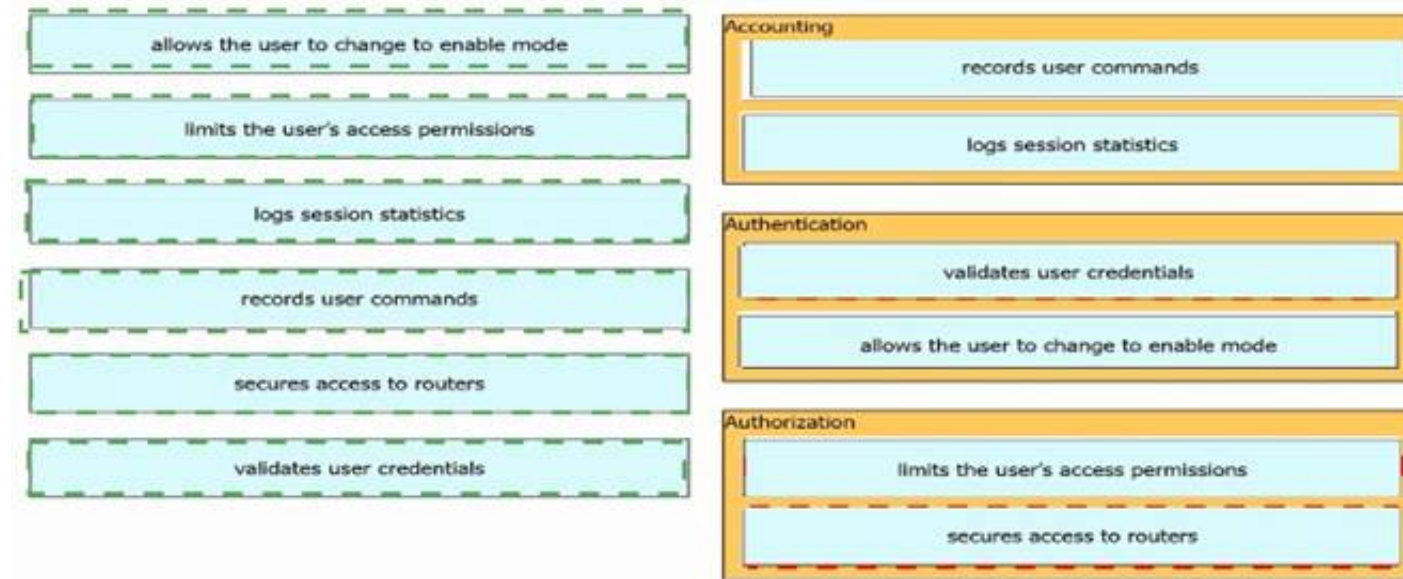
NEW QUESTION 15
DRAG DROP - (Topic 3)
Drag and drop the descriptions of AAA services from the left onto the corresponding services on the right.

A. Mastered
B. Not Mastered

Answer: A

Explanation:

allows the user to change to enable mode		**Accounting**
limits the user's access permissions		records user commands
logs session statistics		logs session statistics
records user commands		**Authentication**
secures access to routers		validates user credentials
validates user credentials		allows the user to change to enable mode
		Authorization
		limits the user's access permissions
		secures access to routers

NEW QUESTION 17
- (Topic 3)
A Cisco engineer is configuring a factory-default router with these three passwords:
• The user EXEC password for console access is p4ssw0rd1
• The user EXEC password for Telnet access is s3cr3t2
• The password for privileged EXEC mode is pnv4t3p4ss
Which command sequence must the engineer configured

A)
```
enable secret priv4t3p4ss
!
line con 0
password login p4ssw0rd1
!
line vty 0 15
password login s3cr3t2
login
```
B)
```
enable secret privilege 15 priv4t3p4ss
!
line con 0
password p4ssw0rd1
login
!
line vty 0 15
password s3cr3t2
login
```
C)
```
enable secret priv4t3p4ss
!
line con 0
password p4ssw0rd1
login
!
line vty 0 15
password s3cr3t2
login
```
D)
```
enable secret priv4t3p4ss
!
line con 0
```

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

Answer: B

NEW QUESTION 20
- (Topic 3)
Refer to the exhibit.

```
TenGigabitEthernet0/0/0 is up, line protocol is up
   Hardware is BUILT-IN-2T+6X1GE, address is 74a0.2f7a.0123 (bia 74a0.2f7a.0123)
   Description: Uplink
   Internet address is 10.1.1.1/24
   MTU 1500 bytes, BW 10000000 Kbit/sec, DLY 10 usec,
      reliability 255/255, txload 1/255, rxload 1/255
   Encapsulation ARPA, loopback not set
   Keepalive not supported
   Full Duplex, 10000Mbps, link type is force-up, media type is unknown media type
   output flow-control is on, input flow-control is on
   ARP type: ARPA, ARP Timeout 04:00:00
   Last input 00:00:00, output 00:05:40, output hang never
   Last clearing of "show interface" counters never
   Input queue: 0/375/0/0 (size/max/drops/flushes); Total output drops: 0
   Queueing strategy: fifo
   Output queue: 0/40 (size/max)
   5 minute input rate 6160000 bits/sec, 1113 packets/sec
   5 minute output rate 11213000 bits/sec, 1553 packets/sec
      12662416065 packets input, 12607032232894 bytes, 0 no buffer
      Received 14117163 broadcasts (0 IP multicasts)
      0 runts, 0 giants, 0 throttles
      0 input errors, 0 CRC, 0 frame, 0 overrun, 0 ignored
      0 watchdog, 26271385 multicast, 0 pause input
      7907779058 packets output, 5073750426832 bytes, 0 underruns
      0 output errors, 8662416065 collisions, 1 interface resets
      0 unknown protocol drops
      0 babbles, 0 late collision, 0 deferred
      0 lost carrier, 0 no carrier, 0 pause output
      0 output buffer failures, 0 output buffers swapped out
      1 carrier transitions
```

Traffic that is flowing over interface TenGigabitEthernet0/0 experiences slow transfer speeds. What is the reason for the issue?

A. heavy traffic congestion
B. a duplex incompatibility
C. a speed conflict
D. queuing drops

Answer: C

NEW QUESTION 25
- (Topic 3)
Which QoS per-hop behavior changes the value of the ToS field in the IPv4 packet header?

A. shaping
B. classification
C. policing
D. marking

Answer: D

NEW QUESTION 28
- (Topic 3)
Refer to the exhibit.

```
EIGRP   10.10.10.0/24[90/1441]   via   F0/10
EIGRP   10.10.10.0/24[90/144]    via   F0/11
EIGRP   10.10.10.0/24[90/1441]   via   F0/12
OSPF    10.10.10.0/24[110/20]    via   F0/13
OSPF    10.10.10.0/24[110/30]    via   F0/14
```

Packets received by the router from BGP enter via a serial interface at 209.165.201.10. Each route is present within the routing table. Which interface is used to forward traffic with a destination IP of 10.10.10.24?

A. F0/10
B. F0/11
C. F0/12
D. F0/13

Answer: B

NEW QUESTION 29
- (Topic 3)
Refer to the exhibit.

```
RIP     10.1.1.16/28[120/5]   via   F0/0
OSPF    10.1.1.0/24[110/30]   via   F0/1
OSPF    10.1.1.0/24[110/40]   via   F0/2
EIGRP   10.1.0.0/26[90/20]    via   F0/3
EIGRP   10.0.0.0/8 [90/133]   via   F0/4
```

Packets received by the router from BGP enter via a serial interface at 209 165 201 1 Each route is present within the routing table Which interface is used to

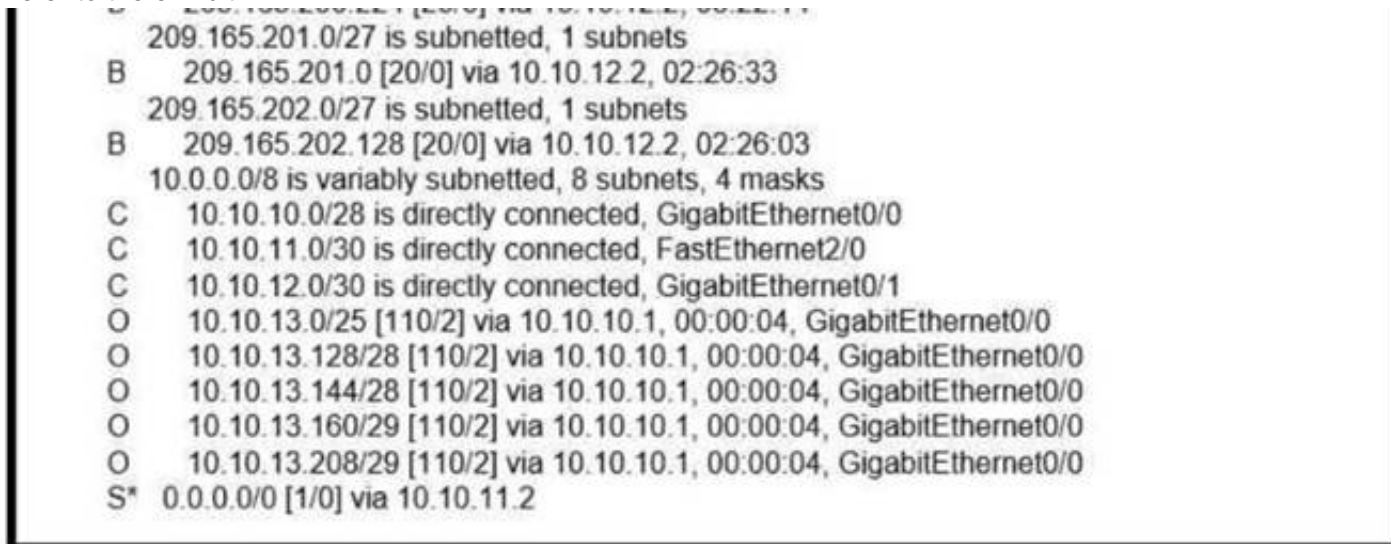forward traffic with a destination IP of 10.1.1.19?

A. F0/4
B. F0/0
C. F0/1
D. F0/3

Answer: B

NEW QUESTION 31
FILL IN THE BLANK - (Topic 3)
Refer to the exhibit.

```
        209.165.201.0/27 is subnetted, 1 subnets
B       209.165.201.0 [20/0] via 10.10.12.2, 02:26:33
        209.165.202.0/27 is subnetted, 1 subnets
B       209.165.202.128 [20/0] via 10.10.12.2, 02:26:03
        10.0.0.0/8 is variably subnetted, 8 subnets, 4 masks
C       10.10.10.0/28 is directly connected, GigabitEthernet0/0
C       10.10.11.0/30 is directly connected, FastEthernet2/0
C       10.10.12.0/30 is directly connected, GigabitEthernet0/1
O       10.10.13.0/25 [110/2] via 10.10.10.1, 00:00:04, GigabitEthernet0/0
O       10.10.13.128/28 [110/2] via 10.10.10.1, 00:00:04, GigabitEthernet0/0
O       10.10.13.144/28 [110/2] via 10.10.10.1, 00:00:04, GigabitEthernet0/0
O       10.10.13.160/29 [110/2] via 10.10.10.1, 00:00:04, GigabitEthernet0/0
O       10.10.13.208/29 [110/2] via 10.10.10.1, 00:00:04, GigabitEthernet0/0
S*  0.0.0.0/0 [1/0] via 10.10.11.2
```

Drag and drop the prefix lengths from the left onto the corresponding prefixes on the right Not all prefixes are used

A. Mastered
B. Not Mastered

Answer: A

Explanation:
Diagram Description automatically generated with low confidence

NEW QUESTION 33
- (Topic 3)
Which characteristic differentiates the concept of authentication from authorization and accounting?

A. user-activity logging
B. service limitations
C. consumption-based billing
D. identity verification

Answer: D

NEW QUESTION 38
- (Topic 3)
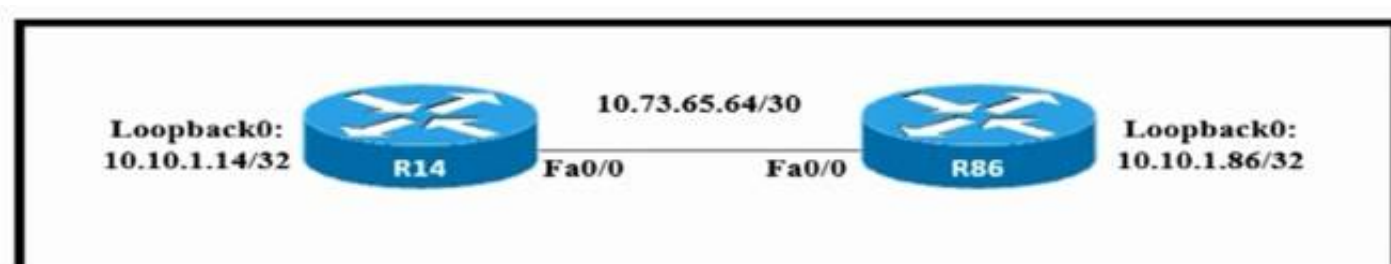Which two network actions occur within the data plane? (Choose two.)

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

Answer: BD

NEW QUESTION 42
- (Topic 3)
Refer to the exhibit.

Which configuration allows routers R14 and R86 to form an OSPFv2 adjacency while acting as a central point for exchanging OSPF information between routers?
A)

```
R14#
interface Loopback0
ip ospf 10 area 0

interface FastEthernet0/0
ip address 10.73.65.65 255.255.255.252
ip ospf network broadcast
ip ospf 10 area 0
ip mtu 1500

router ospf 10
ip ospf priority 255
router-id 10.10.1.14

R86#
interface Loopback0
ip ospf 10 area 0

interface FastEthernet0/0
ip address 10.73.65.66 255.255.255.252
ip ospf network broadcast
ip ospf 10 area 0
ip mtu 1500
```

B)

```
R14#
interface FastEthernet0/0
ip address 10.73.65.65 255.255.255.252
ip ospf network broadcast
ip ospf priority 255
ip mtu 1500

router ospf 10
router-id 10.10.1.14
network 10.10.1.14 0.0.0.0 area 0
network 10.73.65.64 0.0.0.3 area 0
R86#
interface FastEthernet0/0
ip address 10.73.65.66 255.255.255.252
ip ospf network broadcast
ip mtu 1500

router ospf 10
router-id 10.10.1.86
network 10.10.1.86 0.0.0.0 area 0
network 10.73.65.64 0.0.0.3 area 0
```

C)

```
R14#
interface FastEthernet0/0
ip address 10.73.65.65 255.255.255.252
ip ospf network broadcast
ip ospf priority 0
ip mtu 1400

router ospf 10
router-id 10.10.1.14
network 10.10.1.14 0.0.0.0 area 0
network 10.73.65.64 0.0.0.3 area 0
R86#
interface Loopback0
ip address 10.10.1.86 255.255.255.255
```

D)

```
R14#
interface FastEthernet0/0
ip address 10.73.65.65 255.255.255.252
ip ospf network broadcast
ip ospf priority 255
ip mtu 1500

router ospf 10
router-id 10.10.1.14
network 10.10.1.14 0.0.0.0 area 0
network 10.73.65.64 0.0.0.3 area 0
R86#
interface FastEthernet0/0
ip address 10.73.65.66 255.255.255.252
ip ospf network broadcast
ip mtu 1400

router ospf 10
router-id 10.10.1.86
network 10.10.1.86 0.0.0.0 area 0
network 10.73.65.64 0.0.0.3 area 0
```

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

Answer: D

NEW QUESTION 43
- (Topic 3)
What is an expected outcome when network management automation is deployed?

A. A distributed management plane must be used.
B. Software upgrades are performed from a central controller
C. Complexity increases when new device configurations are added
D. Custom applications are needed to configure network devices

Answer: B

NEW QUESTION 48
- (Topic 3)
A network engineer is configuring a switch so that it is remotely reachable via SSH. The engineer has already configured the host name on the router. Which additional command must the engineer configure before entering the command to generate the RSA key?

A. password password
B. crypto key generate rsa modulus 1024
C. ip domain-name domain
D. ip ssh authentication-retries 2

Answer: C

Explanation:
https://www.cisco.com/c/en/us/solutions/small-business/resource-center/networking/how-to-setup-network-switch.html

NEW QUESTION 49
- (Topic 3)
What is a function of a Next-Generation IPS?

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

Answer: D

NEW QUESTION 51
- (Topic 3)
Which two spanning-tree states are bypassed on an interface running PortFast? (Choose two.)
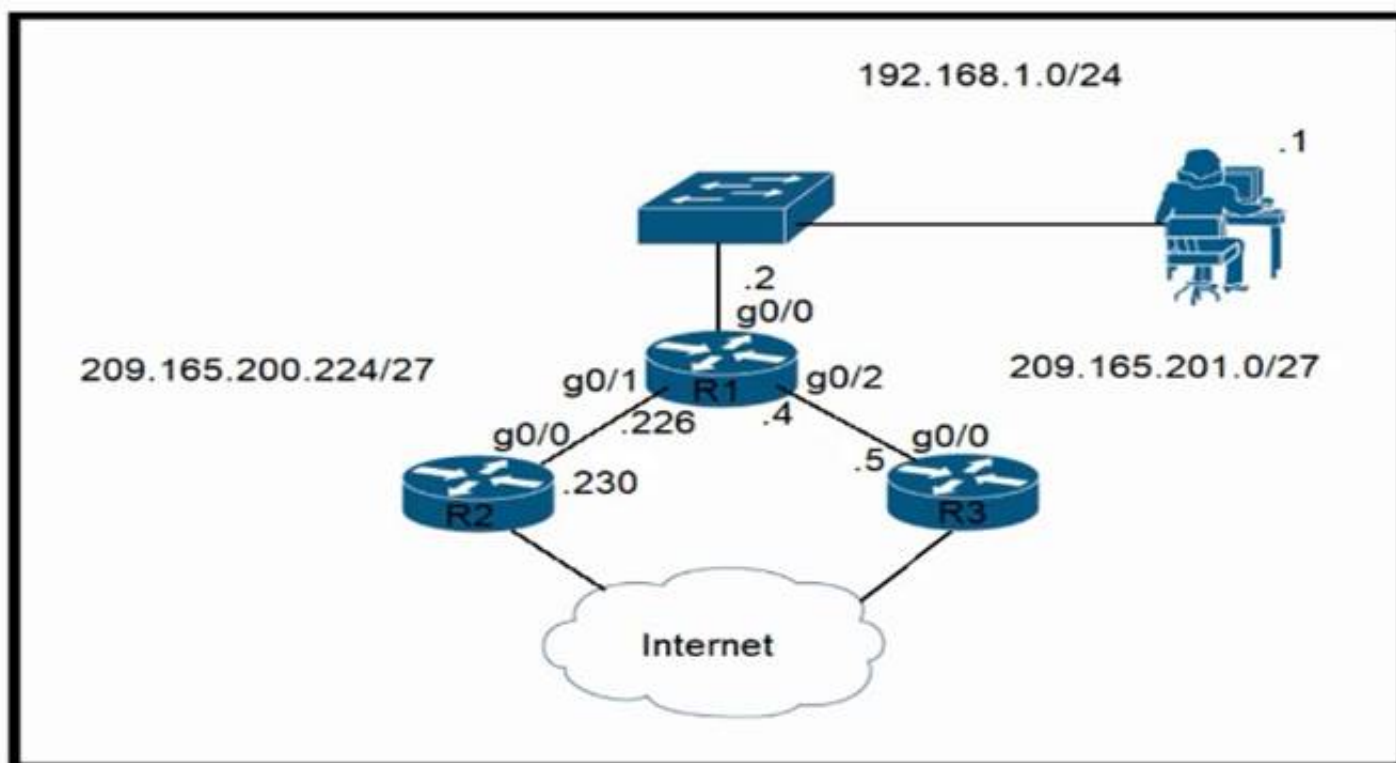
A. disabled
B. listening
C. forwarding

D. learning
E. blocking

Answer: BD

NEW QUESTION 55
- (Topic 3)
Refer to the exhibit.

Router R1 currently is configured to use R3 as the primary route to the Internet, and the route uses the default administrative distance settings. A network engineer must configure R1 so that it uses R2 as a backup, but only if R3 goes down. Which command must the engineer configure on R1 so that it correctly uses R2 as a backup route, without changing the administrative distance configuration on the link to R3?
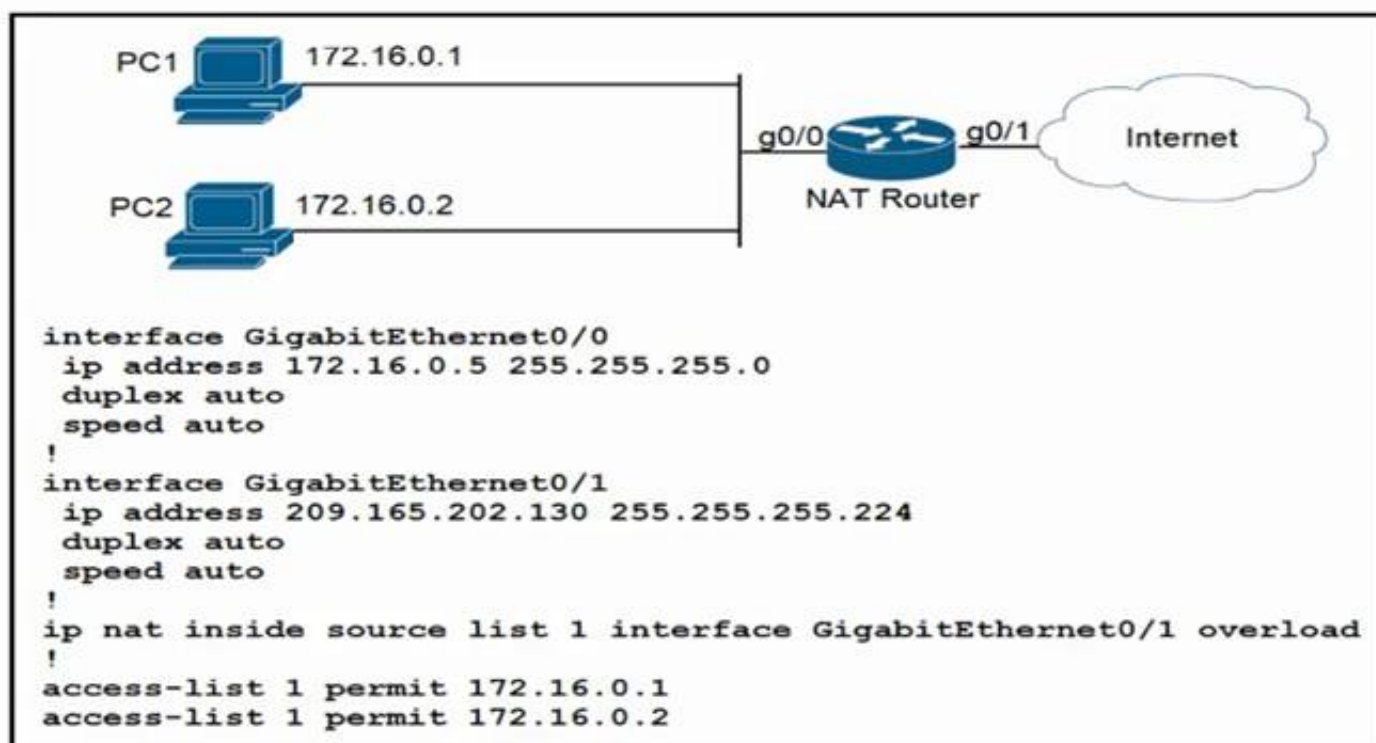
A. ip route 0.0.0.0 0.0.0.0 g0/1 1
B. ip route 0.0.0.0 0.0.0.0 209.165.201.5 10
C. ip route 0.0.0.0 0.0.0.0 209.165.200.226 1
D. ip route 0,0.0.0 0.0.0.0 g0/1 6

Answer: C

NEW QUESTION 58
- (Topic 3)
Refer to the exhibit.

How should the configuration be updated to allow PC1 and PC2 access to the Internet?

A. Modify the configured number of the second access list.
B. Add either the ip nat {inside|outside} command under both interfaces.
C. Remove the overload keyword from the ip nat inside source command.
D. Change the ip nat inside source command to use interface GigabitEthernet0/0.

Answer: B

NEW QUESTION 60
- (Topic 3)
Refer to the exhibit.

```
ip domain-name CNAC.com
!
interface GigabitEthernet0/0/0
 ip address 192.168.1.10 255.255.255.0
 duplex auto
 speed auto
!
line vty 0 15
 login local

R1#show crypto key mypubkey rsa

R1#show ssh
%No SSHv2 server connections running.
%No SSHv1 server connections running.
```

Which two commands must be added to update the configuration of router R1 so that it accepts only encrypted connections? (Choose two)

A. username CNAC secret R!41!4319115@
B. ip ssh version 2
C. line vty 0 4
D. crypto key generate rsa 1024
E. transport input ssh

Answer: DE

NEW QUESTION 65
- (Topic 3)
Which PoE mode enables powered-device detection and guarantees power when the device is detected?

A. dynamic
B. static
C. active
D. auto

Answer: B

NEW QUESTION 69
- (Topic 2)
What role does a hypervisor provide for each virtual machine in server virtualization?

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

Answer: C

Explanation:
 The hypervisor creates and manages virtual machines on a host computer and allocates physical system resources to them.

NEW QUESTION 70
- (Topic 2)
Which type of IPv6 address is publicly routable in the same way as IPv4 public address?

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

Answer: A

NEW QUESTION 75
- (Topic 2)
What is the primary different between AAA authentication and authorization?

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

Answer: C

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

NEW QUESTION 78
- (Topic 2)
While examining excessive traffic on the network, it is noted that all incoming packets on an interface appear to be allowed even though an IPv4 ACL is applied to the interface.
Which two misconfigurations cause this behavior? (Choose two)

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

Answer: BC

NEW QUESTION 79
- (Topic 2)
Using direct sequence spread spectrum, which three 2.4-GHz channels are used to limit collisions?

A. 1,6,11
B. 1,5,10
C. 1,2,3
D. 5,6,7

Answer: A

NEW QUESTION 83
DRAG DROP - (Topic 2)
Drag the descriptions of IP protocol transmissions from the left onto the IP traffic types on the right.
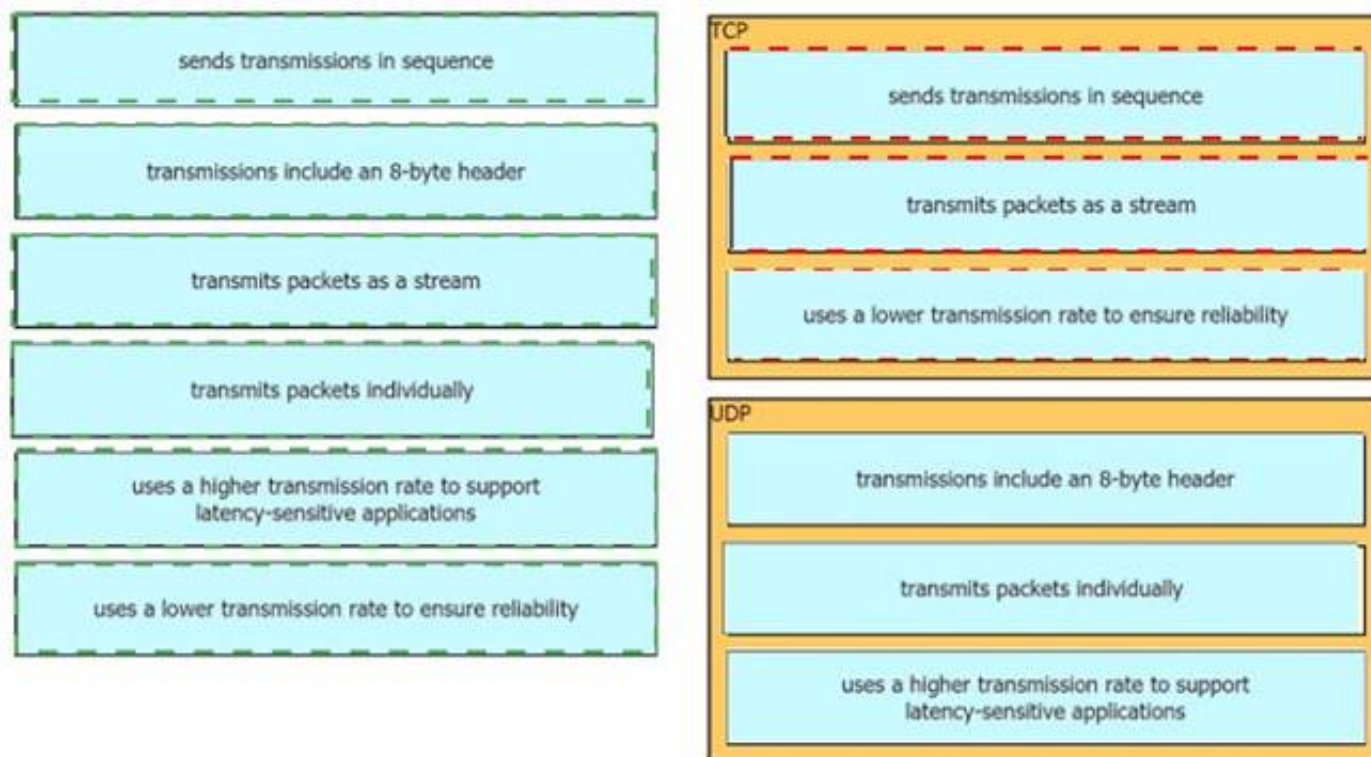

A. Mastered
B. Not Mastered

Answer: A

Explanation:

NEW QUESTION 85
- (Topic 2)
Router A learns the same route from two different neighbors, one of the neighbor routers is an OSPF neighbor and the other is an EIGRP neighbor. What is the administrative distance of the route that will be installed in the routing table?

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

Answer: B

Explanation:
 The Administrative distance (AD) of EIGRP is 90 while the AD of OSPF is 110 so EIGRP route will be chosen to install into the routing table.

NEW QUESTION 90
- (Topic 2)
Which two QoS tools provides congestion management? (Choose two)

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

Answer: BC

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

NEW QUESTION 93
- (Topic 2)
What is a similarly between 1000BASE-LX and 1000BASE-T standards?

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

Answer: A

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

NEW QUESTION 96
- (Topic 2)
Which unified access point mode continues to serve wireless clients after losing connectivity to the Cisco Wireless LAN Controller?

A. sniffer
B. mesh
C. flexconnect

D. local

Answer: C

Explanation:
 Reference: https://www.cisco.com/c/en/us/td/docs/wireless/controller/8-5/config-guide/b_cg85/flexconnect.html

NEW QUESTION 100
- (Topic 2)
A network administrator needs to aggregate 4 ports into a single logical link which must negotiate layer 2 connectivity to ports on another switch. What must be configured when using active mode on both sides of the connection?

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

Answer: D

NEW QUESTION 103
- (Topic 2)
Refer to the exhibit.

```
SW1#sh lacp neighbor
Flags:   S - Device is requesting Slow LACPDUs
         F - Device is requesting Fast LACPDUs
         A - Device is in Active mode        P - Device is in Passive mode

Channel group 35 neighbors

Partner's information:

                    LACP port                        Admin  Oper  Port     Port
Port      Flags     Priority  Dev ID          Age    key    Key   Number   State
Et1/0     SP        32768     aabb.cc80.7000  8s     0x0    0x23  0x101    0x3C
Et1/1     SP        32768     aabb.cc80.7000  8s     0x0    0x23  0x102    0x3C
```

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

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

Answer: D

Explanation:
 From the neighbor status, we notice the "Flags" are SP. "P" here means the neighbor is in Passive mode.In order to create an Etherchannel interface, the (local) SW1 ports should be in Active mode.Moreover, the "Port State" in the exhibit is "0x3c" (which equals to "00111100 in binary format).Bit 3 is "1" which means the ports are synchronizing -
> the ports are working so the local ports should be in Active mode.

NEW QUESTION 105
- (Topic 2)
Why does a switch flood a frame to all ports?

A. The frame has zero destination MAC addresses.
B. The source MAC address of the frame is unknown
C. The source and destination MAC addresses of the frame are the same
D. The destination MAC address of the frame is unknown.

Answer: B

NEW QUESTION 106
- (Topic 2)
Which two actions influence the EIGRP route selection process? (Choose two)
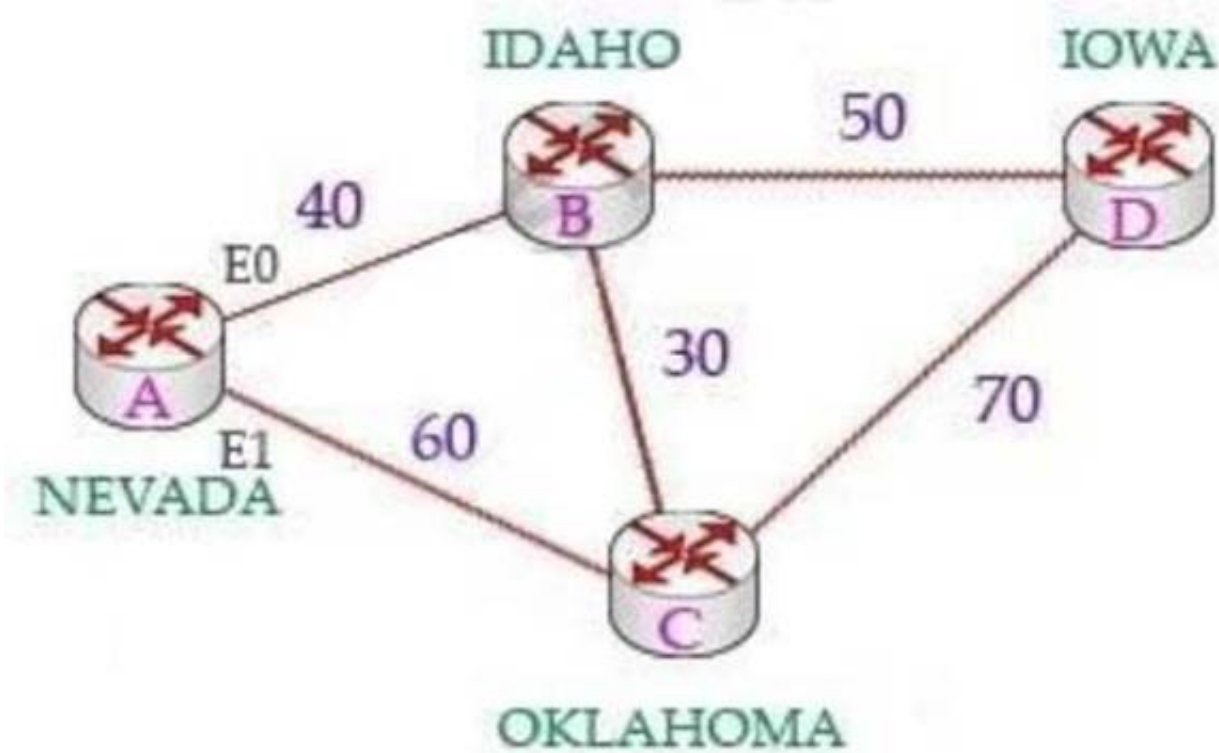
A. The router calculates the reported distance by multiplying the delay on the exiting Interface by 256.
B. The router calculates the best backup path to the destination route and assigns it as the feasible successor.
C. The router calculates the feasible distance of all paths to the destination route
D. The advertised distance is calculated by a downstream neighbor to inform the local router of the bandwidth on the link
E. The router must use the advertised distance as the metric for any given route

Answer: BC

Explanation:
 The reported distance (or advertised distance) is the cost from the neighbor to the destination. It is calculated from the router advertising the route to the network.

For example in the topology below, suppose router A & B are exchanging their routing tables for the first time. Router B says "Hey, the best metric (cost) from me to IOWA is 50 and the metric from you to IOWA is 90" and advertises it to router A.

Router A considers the first metric (50) as the Advertised distance. The second metric (90), which is from NEVADA to IOWA (through IDAHO), is called the Feasible distance.

The reported distance is calculated in the same way of calculating the metric. By default (K1 = 1, K2 = 0, K3 = 1, K4 = 0, K5 = 0), the metric is calculated as follows:

$$metric = \left[\frac{10{,}000{,}000}{\text{slowest bandwidth[in kbps]}} + \frac{\text{sum of delay[in μsec]}}{10} \right] * 256$$

NEW QUESTION 108
- (Topic 2)
A packet is destined for 10.10.1.22. Which static route does the router choose to forward the packet?

A. ip route 10.10.1.0 255.255.255.240 10.10.255.1
B. ip route 10.10.1.16 255.255.255.252 10.10.255.1
C. ip route 10.10.1.20 255.255.255.252 10.10.255.1
D. ip route 10.10.1.20 255.255.255.254 10.10.255.1

Answer: C

NEW QUESTION 112
DRAG DROP - (Topic 2)
Drag and drop the application protocols from the left onto the transport protocols that it uses on the right

A. Mastered
B. Not Mastered
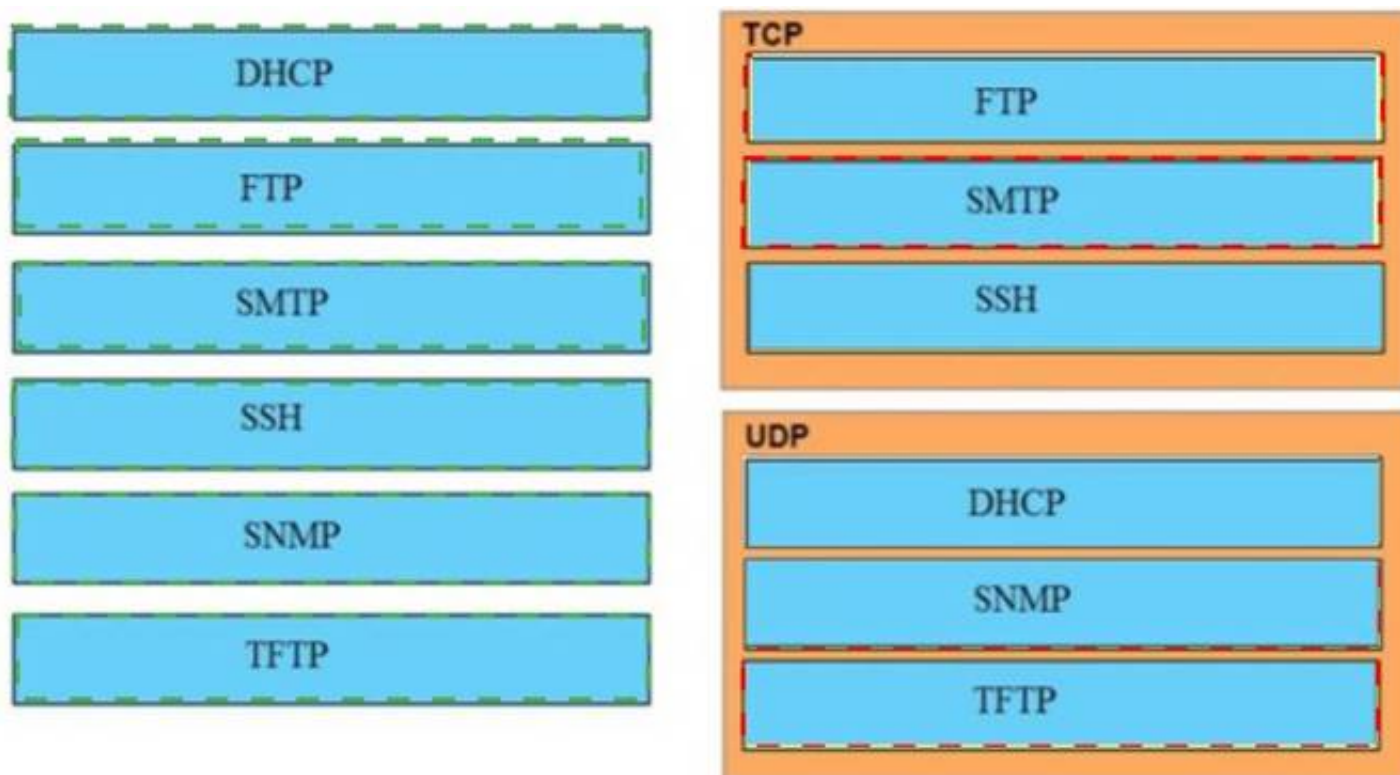
Answer: A

Explanation:

TCP	
DHCP	FTP
FTP	SMTP
SMTP	SSH
SSH	**UDP**
SNMP	DHCP
TFTP	SNMP
	TFTP

NEW QUESTION 115
- (Topic 2)
Refer to the exhibit.

```
Router#show ip route
Codes: L - local, C - connected, S - static, R - RIP, M - mobile, B - BGP
       D - EIGRP, EX - EIGRP external, O - OSPF, IA - OSPF inter area
       N1 - OSPF NSSA external type 1, N2 - OSPF NSSA external type 2
       E1 - OSPF external type 1, E2 - OSPF external type 2
       i - IS-IS, su - IS-IS summary, L1 - IS-IS level-1, L2 - IS-IS level-2
       ia - IS-IS inter area, * - candidate default, U - per-user static route

Gateway of last resort is 209.165.202.131 to network 0.0.0.0

S*     0.0.0.0/0 [1/0] via 209.165.202.131
       209.165.200.0/27 is subnetted, 1 subnets
S         209.165.200.224 [254/0] via 209.165.202.129
       209.165.201.0/27 is subnetted, 1 subnets
S         209.165.201.0 [1/0] via 209.165.202.130
```

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

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

Answer: D

NEW QUESTION 118
- (Topic 2)
Which command must be entered to configure a DHCP relay?

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

Answer: A

NEW QUESTION 120
- (Topic 2)
Which design element is a best practice when deploying an 802.11b wireless infrastructure?

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

Answer: C

NEW QUESTION 123
- (Topic 2)
Refer to Exhibit.
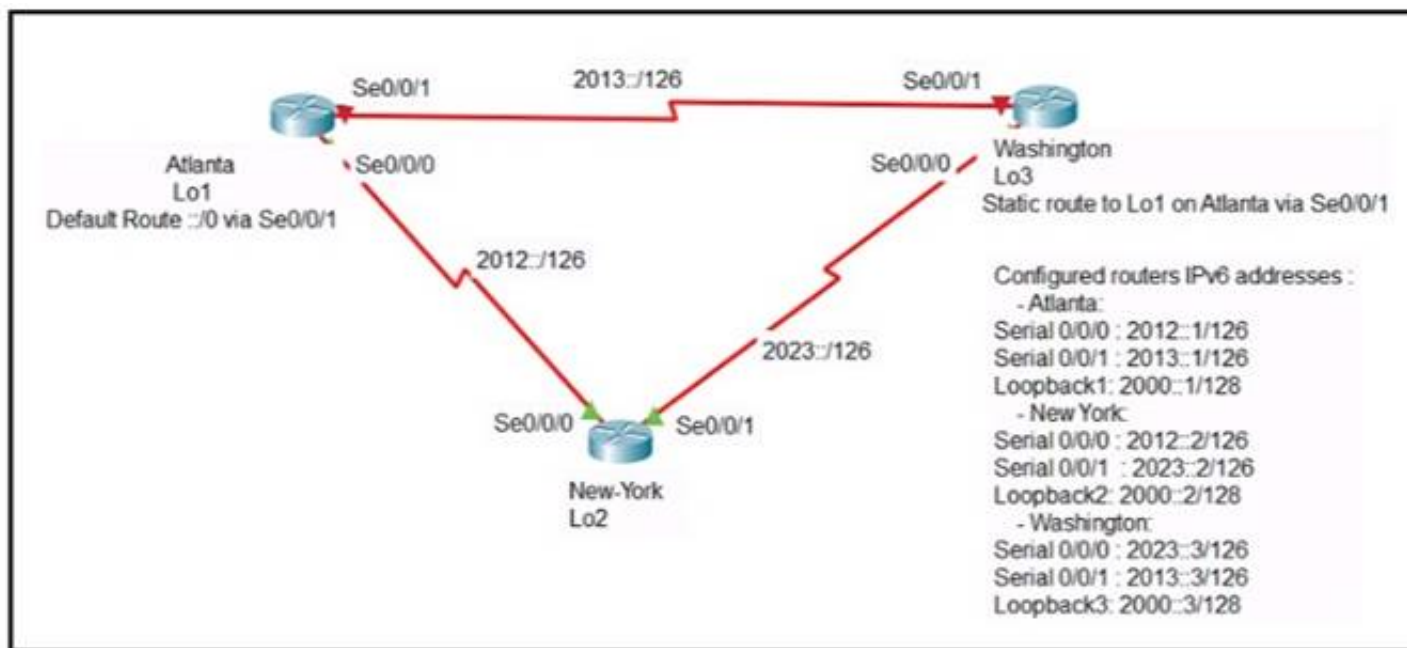
An engineer is configuring the NEW York router to reach the Lo1 interface of the Atlanta router using interface Se0/0/0 as the primary path. Which two commands must be configured on the New York router so that it can reach the Lo1 interface of the Atlanta router via Washington when the link between New York and Atlanta goes down? (Choose two)

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

Answer: AE

Explanation:
Floating static routes are static routes that have an administrative distance greater than the administrative distance (AD) of another static route or dynamic routes. By default a static route has an AD of 1 then floating static route must have the AD greater than 1. Floating static route has a manually configured administrative distance greater than that of the primary route and therefore would not be in the routing table until the primary route fails.

NEW QUESTION 127
- (Topic 2)
Refer to the exhibit.
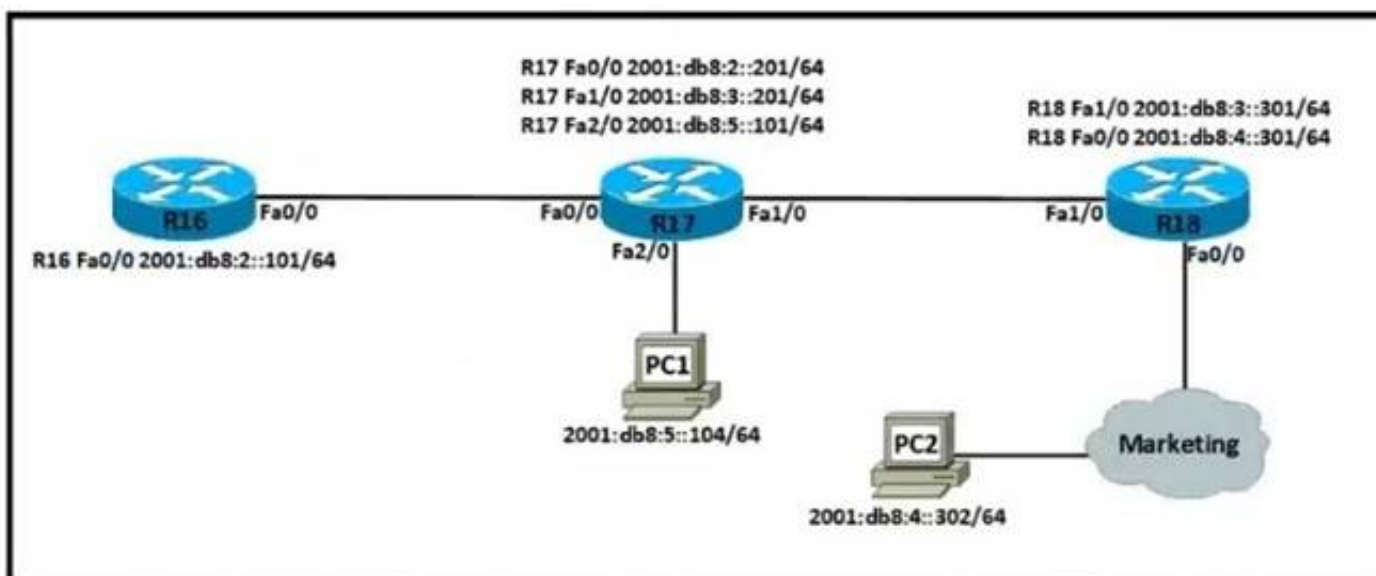
Which IPv6 configuration is required for R17 to successfully ping the WAN interface on R18?
A)

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

B)

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

C)

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

D)

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

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

Answer: B

Explanation:

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

NEW QUESTION 131
DRAG DROP - (Topic 2)
Drag and drop the TCP/IP protocols from the left onto the transmission protocols on the right

DNS
SMTP
SNMP

TCP

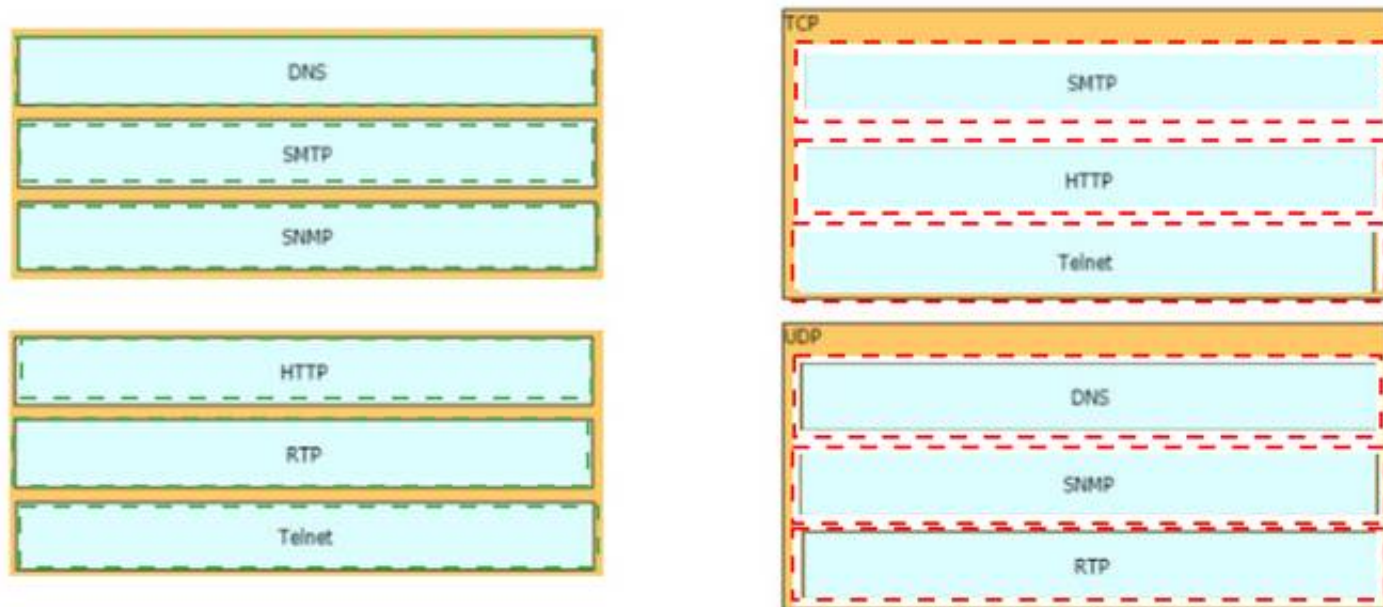| HTTP |
| --- |
| RTP |
| Telnet |

UDP

A. Mastered
B. Not Mastered

Answer: A

Explanation:

NEW QUESTION 135
- (Topic 2)
Which function does an SNMP agent perform?

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

Answer: A

NEW QUESTION 139
- (Topic 2)
A user configured OSPF in a single area between two routers A serial interface connecting R1 and R2 is running encapsulation PPP By default which OSPF network type is seen on this interface when the user types show ip ospf interface on R1 or R2?

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

Answer: C

Explanation:
The default OSPF network type for HDLC and PPP on Serial link is point-to- point (while the default OSPF network type for Ethernet link is Broadcast).

NEW QUESTION 140
- (Topic 2)
What makes Cisco DNA Center different from traditional network management applications and their management of networks?

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

Answer: C

NEW QUESTION 144
- (Topic 2)
What are two reasons for an engineer to configure a floating state route? (Choose two)

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

Answer: AC

NEW QUESTION 145
- (Topic 2)
How does WPA3 improve security?

A. It uses SAE for authentication.
B. It uses a 4-way handshake for authentication.
C. It uses RC4 for encryption.
D. It uses TKIP for encryption.

Answer: A

NEW QUESTION 146
- (Topic 2)
When a WLAN with WPA2 PSK is configured in the Wireless LAN Controller GUI which format is supported?

A. Unicode
B. base64
C. decimal
D. ASCII

Answer: D

NEW QUESTION 150
- (Topic 2)
When OSPF learns multiple paths to a network, how does it select a route?

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

Answer: C

NEW QUESTION 152
- (Topic 2)
Which statement correctly compares traditional networks and controller-based networks?

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

Answer: D

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

NEW QUESTION 157
- (Topic 2)
Refer to Exhibit.
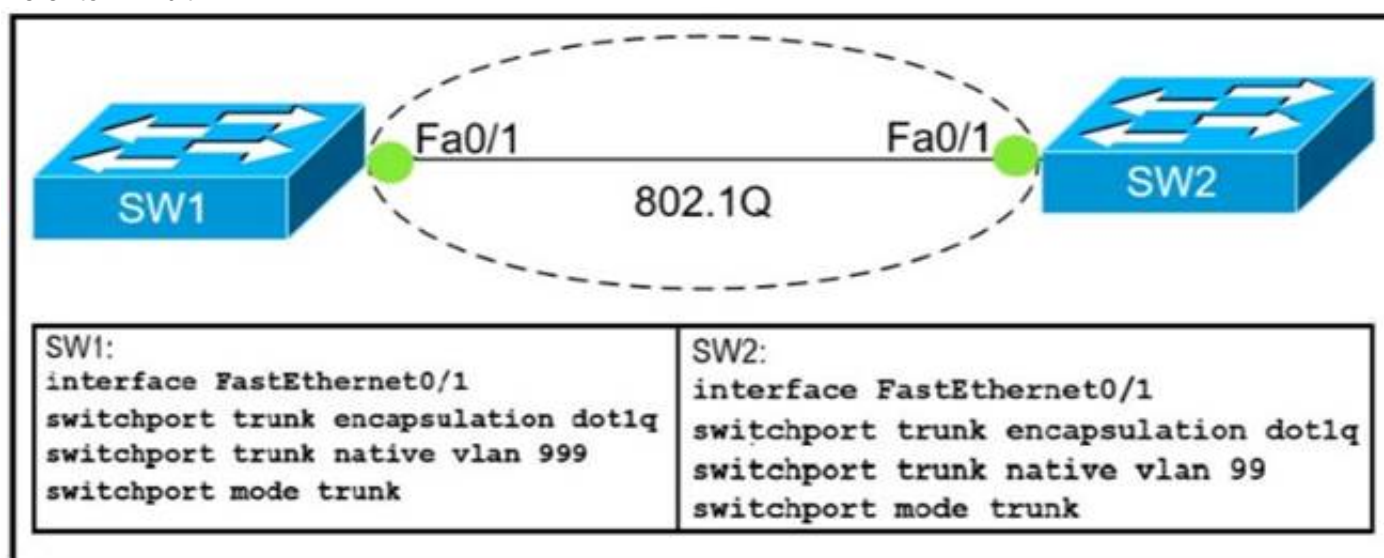
Which action do the switches take on the trunk link?

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

Answer: B

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

NEW QUESTION 160
- (Topic 2)
Refer to the exhibit.

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

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

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

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

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

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

Answer: C

NEW QUESTION 164
- (Topic 2)
When a site-to-site VPN is used, which protocol is responsible for the transport of user data?

A. IKEv2
B. IKEv1
C. IPsec
D. MD5

Answer: C

Explanation:
A site-to-site VPN allows offices in multiple fixed locations to establish secure connections with each other over a public network such as the Internet. A site-to-site VPN means that two sites create a VPN tunnel by encrypting and sending data between two devices. One set of rules for creating a site-to-site VPN is defined by IPsec.

NEW QUESTION 167
- (Topic 2)
What is the primary function of a Layer 3 device?

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

Answer: C

NEW QUESTION 168
- (Topic 2)
Which statement about Link Aggregation when implemented on a Cisco Wireless LAN Controller is true?

A. To pass client traffic two or more ports must be configured.
B. The EtherChannel must be configured in "mode active"
C. When enabled the WLC bandwidth drops to 500 Mbps
D. One functional physical port is needed to pass client traffic

Answer: D

Explanation:
Reference: https://www.cisco.com/c/en/us/td/docs/wireless/controller/8-2/config-guide/b_cg82/b_cg82_chapter_010101011.html

NEW QUESTION 169
- (Topic 2)

What is a function of TFTP in network operations?

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

Answer: D

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

NEW QUESTION 170
- (Topic 2)
Refer to the exhibit.

```
Switch(config)#hostname R1
R1(config)#interface FastEthernet0/1
R1(config-if)#no switchport
R1(config-if)#ip address 10.100.20.42 255.255.255.0
R1(config-if)#line vty 0 4
R1(config-line)#login
```

An engineer booted a new switch and applied this configuration via the console port. Which additional configuration must be applied to allow administrators to authenticate directly to enable privilege mode via Telnet using a local username and password?

○ R1(config)#username admin privilege 15 secret p@ss1234
   R1(config-if)#line vty 0 4
   R1(config-line)#login local

○ R1(config)#username admin secret p@ss1234
   R1(config-if)#line vty 0 4
   R1(config-line)#login local
   R1(config)#enable secret p@ss1234

○ R1(config)#username admin
   R1(config-if)#line vty 0 4
   R1(config-line)#password p@ss1234
   R1(config-line)#transport input telnet

○ R1(config)#username admin
   R1(config-if)#line vty 0 4
   R1(config-line)#password p@ss1234

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

Answer: A

NEW QUESTION 171
DRAG DROP - (Topic 2)
Refer to the exhibit.

```
C:\>ipconfig/all

Windows IP Configuration

    Host Name . . . . . . . . . . . . : Inspiron15
    Primary Dns Suffix  . . . . . . . :
    Node Type . . . . . . . . . . . . : Mixed
    IP Routing Enabled. . . . . . . . : No
    WINS Proxy Enabled. . . . . . . . : No

Wireless LAN adapter Local Area Connection* 12:

    Media State . . . . . . . . . . . : Media disconnected
    Connection-specific DNS Suffix  . :
    Description . . . . . . . . . . . : Microsoft Wi-Fi Direct Virtual Adapter
    Physical Address. . . . . . . . . : 1A-76-3F-7C-57-DF
    DHCP Enabled. . . . . . . . . . . : Yes
    Autoconfiguration Enabled . . . . : Yes

Wireless LAN adapter Wi-Fi:

    Connection-specific DNS Suffix  . :
    Description . . . . . . . . . . . : Dell Wireless 1703 802.11b/g/n (2.4GHz)
    Physical Address. . . . . . . . . : B8-76-3F-7C-57-DF
    DHCP Enabled. . . . . . . . . . . : No
    Autoconfiguration Enabled . . . . : Yes
    Link-local IPv6 Address . . . . . : fe80::e09f:9839:6e86:f755%12(Preferred)
                  . . . . . . . . . . : 192.168.1.20(Preferred)
                  . . . . . . . . . . : 255.255.255.0
                  . . . . . . . . . . : 192.168.1.1
    DHCPv6 IAID . . . . . . . . . . . : 263747135
    DHCPv6 Client DUID. . . . . . . . : 00-01-00-01-18-E6-32-43-B8-76-3F-7C-57-DF

                  . . . . . . . . . . : 192.168.1.15
                                        192.168.1.16
    NetBIOS over Tcpip. . . . . . . . : Enabled
```

An engineer is required to verify that the network parameters are valid for the users wireless LAN connectivity on a /24 subnet. Drag and drop the values from the left onto the network parameters on the right. Not all values are used.

192.168.1.1	broadcast address
192.168.1.20	default gateway
192.168.1.254	host IP address
192.168.1.255	last assignable IP address in the subnet
B8-76-3F-7C-57-DF	MAC address
1A-76-3F-7C-57-DF	network address
192.168.1.0	

A. Mastered
B. Not Mastered

Answer: A

Explanation:

192.168.1.1		192.168.1.255
192.168.1.20		192.168.1.1
192.168.1.254		192.168.1.20
192.168.1.255		192.168.1.254
B8-76-3F-7C-57-DF		B8-76-3F-7C-57-DF
1A-76-3F-7C-57-DF		192.168.1.0
192.168.1.0		
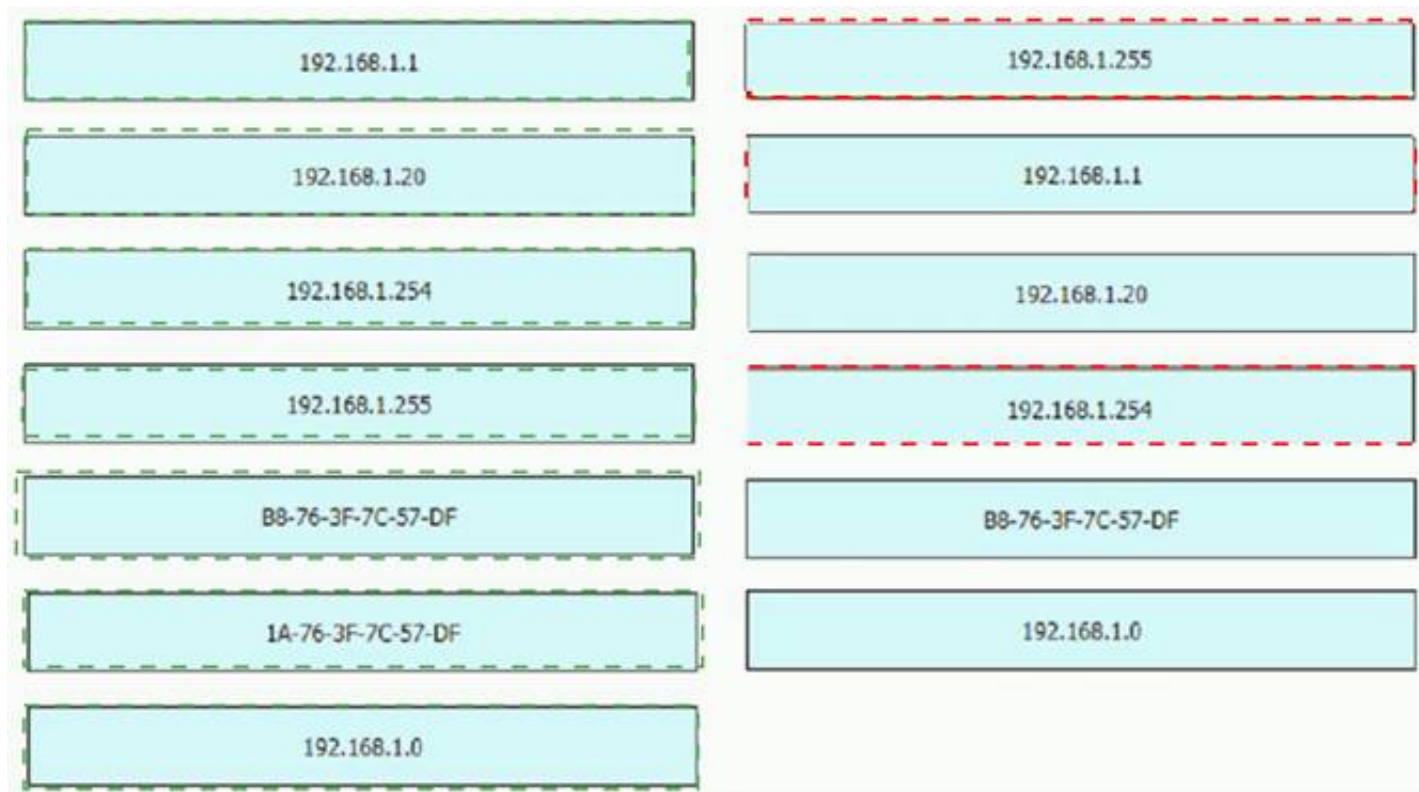
NEW QUESTION 173
- (Topic 2)
An office has 8 floors with approximately 30-40 users per floor What command must be configured on the router Switched Virtual Interface to use address space efficiently?

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

Answer: B

NEW QUESTION 175
- (Topic 2)
What are two characteristics of a public cloud Implementation? (Choose two.)

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

Answer: CE

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

NEW QUESTION 178
- (Topic 2)
Which configuration is needed to generate an RSA key for SSH on a router?

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

Answer: D

NEW QUESTION 181
- (Topic 2)
A user configured OSPF and advertised the Gigabit Ethernet interface in OSPF By default, which type of OSPF network does this interface belong to?

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

Answer: C

Explanation:
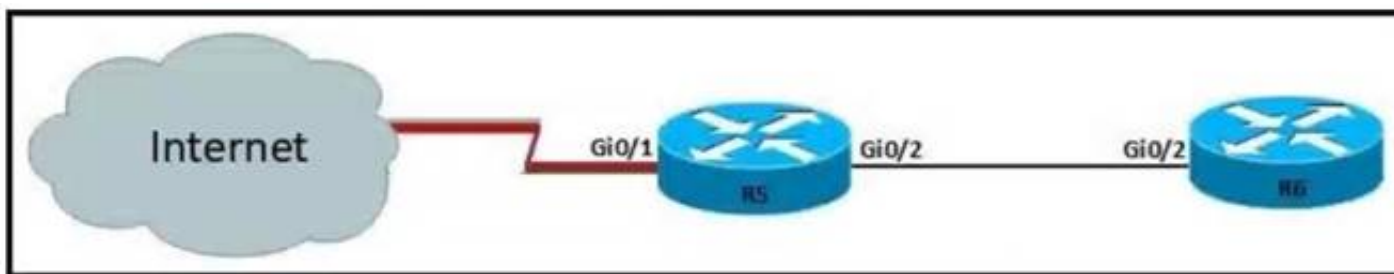https://www.oreilly.com/library/view/cisco-ios- cookbook/0596527225/ch08s15.html
The Broadcast network type is the default for an OSPF enabled ethernet interface (while Point-toPoint is the default OSPF network type for Serial interface with

HDLC and PPP encapsulation).

NEW QUESTION 186
- (Topic 2)
Refer to the exhibit.

For security reasons, automatic neighbor discovery must be disabled on the R5 Gi0/1 interface. These tasks must be completed:
• Disable all neighbor discovery methods on R5 interface GiO/1.
• Permit neighbor discovery on R5 interface GiO/2.
• Verify there are no dynamically learned neighbors on R5 interface Gi0/1.
• Display the IP address of R6*s interface Gi0/2. Which configuration must be used?

○ R5(config)#**int Gi0/1**
R5(config-if)#**no cdp run**
R5(config-if)#**exit**
R5(config)#**lldp run**
R5(config)#**cdp enable**
R5#**sh cdp neighbor**
R5#**sh lldp neighbor**

☐ R5(config)#**int Gi0/1**
R5(config-if)#**no cdp enable**
R5(config-if)#**exit**
R5(config)#**no lldp run**
R5(config)#**cdp run**
R5#**sh cdp neighbor**
R5#**sh lldp neighbor**

○ R5(config)#**int Gi0/1**
R5(config-if)#**no cdp enable**
R5(config-if)#**exit**
R5(config)#**no lldp run**
R5(config)#**cdp run**
R5#**sh cdp neighbor detail**
R5#**sh lldp neighbor**

○ R5(config)#**int Gi0/1**
R5(config-if)#**no cdp enable**
R5(config-if)#**exit**
R5(config)#**lldp run**
R5(config)#**no cdp run**
R5#**sh cdp neighbor detail**
R5#**sh lldp neighbor**

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

Answer: C

NEW QUESTION 189
- (Topic 2)
What are two descriptions of three-tier network topologies? (Choose two)

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

Answer: CE

NEW QUESTION 194
- (Topic 2)
Which set of action satisfy the requirement for multifactor authentication?

A. The user swipes a key fob, then clicks through an email link
B. The user enters a user name and password, and then clicks a notification in an authentication app on a mobile device
C. The user enters a PIN into an RSA token, and then enters the displayed RSA key on a login screen
D. The user enters a user name and password and then re-enters the credentials on a second screen

Answer: B

Explanation:
This is an example of how two-factor authentication (2FA) works:1. The user logs in to the website or service with their username and password.2. The password is validated by an authentication server and, if correct, the user becomes eligible for the second factor.3. The authentication server sends a unique code to the user's second-factor method (such as a smartphone app).4. The user confirms their identity by providing the additional authentication for their second-factor method.

NEW QUESTION 197
- (Topic 2)
A wireless administrator has configured a WLAN; however, the clients need access to a less congested 5-GHz network for their voice quality. What action must be taken to meet the requirement?

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

Answer: D

NEW QUESTION 201
- (Topic 2)
Refer to the exhibit.

```
R1#config t
R1(config)# interface gi1/1
R1(config-if)# ip address 192.168.0.1 255.255.255.0

R1(config)# router bgp 65000
R1(config-router)# neighbor 192.168.0.2 remote-as 65001
R1(config-router)# network 10.1.1.0 mask 255.255.255.0

R1(config)# router ospf 1
R1(config)# router-id 1.1.1.1
R1(config)# network 192.168.0.1 0.0.0.0 area 0
R1(config)# network 10.1.1.0 0.0.0.255 area 0

R1(config)# router eigrp 1
R1(config)# eigrp router-id 1.1.1.1
R1(config)# network 10.1.1.0 0.0.0.255
R1(config)# network 192.168.0.1 0.0.0.0

R2#config t
R2(config)# interface gi1/1
R2(config-if)# ip address 192.168.0.2 255.255.255.0

R2#config t
R2(config)# router bgp 65001
R2(config-router)# neighbor 192.168.0.1 remote-as 65000

R2(config)# router ospf 1
R2(config)# router-id 2.2.2.2
R2(config)# network 192.168.1.2 0.0.0.0 area 0

R2(config)# router eigrp 1
R2(config)# eigrp router-id 1.1.1.1
R2(config)# network 192.168.0.1 0.0.0.0

R2(config)# ip route 10.1.1.0 255.255.255.0 192.168.0.1
```

Router R2 is configured with multiple routes to reach network 10 1.1 0/24 from router R1. What protocol is chosen by router R2 to reach the destination network 10.1 1 0/24?

A. eBGP
B. static
C. OSPF
D. EIGRP

Answer: B

NEW QUESTION 203
- (Topic 2)
Refer to the exhibit.

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

With which metric was the route to host 172.16.0.202 learned?

A. 110
B. 38443
C. 3184439

Answer: C

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

NEW QUESTION 205
- (Topic 2)
Which condition must be met before an NMS handles an SNMP trap from an agent?

A. The NMS software must be loaded with the MIB associated with the trap.
B. The NMS must be configured on the same router as the SNMP agent
C. The NMS must receive a trap and an inform message from the SNMP agent within a configured interval
D. The NMS must receive the same trap from two different SNMP agents to verify that it is reliable.

Answer: A

NEW QUESTION 209
- (Topic 2)
An implementer is preparing hardware for virtualization to create virtual machines on a host. What is needed to provide communication between hardware and virtual machines?

A. hypervisor
B. router
C. straight cable
D. switch

Answer: A

NEW QUESTION 213
- (Topic 2)
What are two benefits of using the PortFast feature? (Choose two)

A. Enabled interfaces are automatically placed in listening state
B. Enabled interfaces come up and move to the forwarding state immediately
C. Enabled interfaces never generate topology change notifications.
D. Enabled interfaces that move to the learning state generate switch topology change notifications
E. Enabled interfaces wait 50 seconds before they move to the forwarding state

Answer: AB

NEW QUESTION 217
- (Topic 2)
What is the expected outcome when an EUI-64 address is generated?

A. The seventh bit of the original MAC address of the interface is inverted
B. The interface ID is configured as a random 64-bit value
C. The characters FE80 are inserted at the beginning of the MAC address of the interface
D. The MAC address of the interface is used as the interface ID without modification

Answer: A

NEW QUESTION 218
- (Topic 2)
Where does a switch maintain DHCP snooping information?

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

Answer: C

NEW QUESTION 223
- (Topic 2)
A network engineer must configure the router R1 GigabitEthernet1/1 interface to connect to the router R2 GigabitEthernet1/1 interface. For the configuration to be applied the engineer must compress the address 2001:0db8:0000:0000:0500:000a:400F:583B. Which command must be issued on the interface?

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

Answer: B

NEW QUESTION 227
- (Topic 2)
Which command must be entered when a device is configured as an NTP server?

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

Answer: D

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

NEW QUESTION 230
- (Topic 2)
When a WPA2-PSK WLAN is configured in the wireless LAN Controller, what is the minimum number of characters that in ASCII format?

A. 6
B. 8
C. 12
D. 18

Answer: B

NEW QUESTION 232
- (Topic 2)
Refer to the exhibit.

```
          Gi1/0
                        Gi2/0
    R1                         R2

R1#show running-config
Building configuration...
!
interface GigabitEthernet1/0
  mtu 1600
  ip address 192.168.0.1 255.255.255.252
  negotiation auto
!
router ospf 1
  router-id 1.1.1.1
  passive-interface default
  no passive-interface GigabitEthernet1/0
  network 192.168.0.1 0.0.0.0 area 0
!
R2#show running-config
Building configuration...
!
interface GigabitEthernet2/0
  ip address 192.168.0.2 255.255.255.252
  negotiation auto
!
router ospf 1
  router-id 2.2.2.2
  passive-interface default
  no passive-interface GigabitEthernet2/0
  network 192.168.0.2 0.0.0.0 area 0
```

Which configuration issue is preventing the OSPF neighbor relationship from being established between the two routers?

A. R2 is using the passive-interface default command
B. R1 has an incorrect network command for interface Gi1/0
C. R2 should have its network command in area 1
D. R1 interface Gil/0 has a larger MTU size

Answer: D

NEW QUESTION 233
- (Topic 2)
Refer to the exhibit.

```
R1# sh ip ospf int gig0/0
Gig0/0 is up, line protocol is up
   Internet Address 10.201.24.8/28, Area 1, Attached via Network Statement
   Process ID 100, Router ID 192.168.1.1, 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) 192.168.1.1, Interface address 10.201.24.8
   No backup designated router on this network
   Timer intervals configured, Hello 10, Dead 40, Wait 40, Retransmit 5
     oob-resync timeout 40
     Hello due in 00:00:07

R2#sh ip ospf int gig0/0
gig0/0 is up, line protocol is up
   Internet Address 10.201.24.1/28, Area 1
   Process ID 100, Router ID 172.16.1.1, Network Type BROADCAST, Cost: 1
   Transmit Delay is 1 sec, State DR, Priority 1
   Designated Router (ID) 172.16.1.1, Interface address 10.201.24.1
   No backup designated router on this network
   Timer intervals configured, Hello 20, Dead 80, Wait 80, Retransmit 5
```

What action establishes the OSPF neighbor relationship without forming an adjacency?

A. modify hello interval
B. modify process ID
C. modify priority
D. modify network type

Answer: A

NEW QUESTION 234
- (Topic 2)
Which 802.11 frame type is indicated by a probe response after a client sends a probe request?
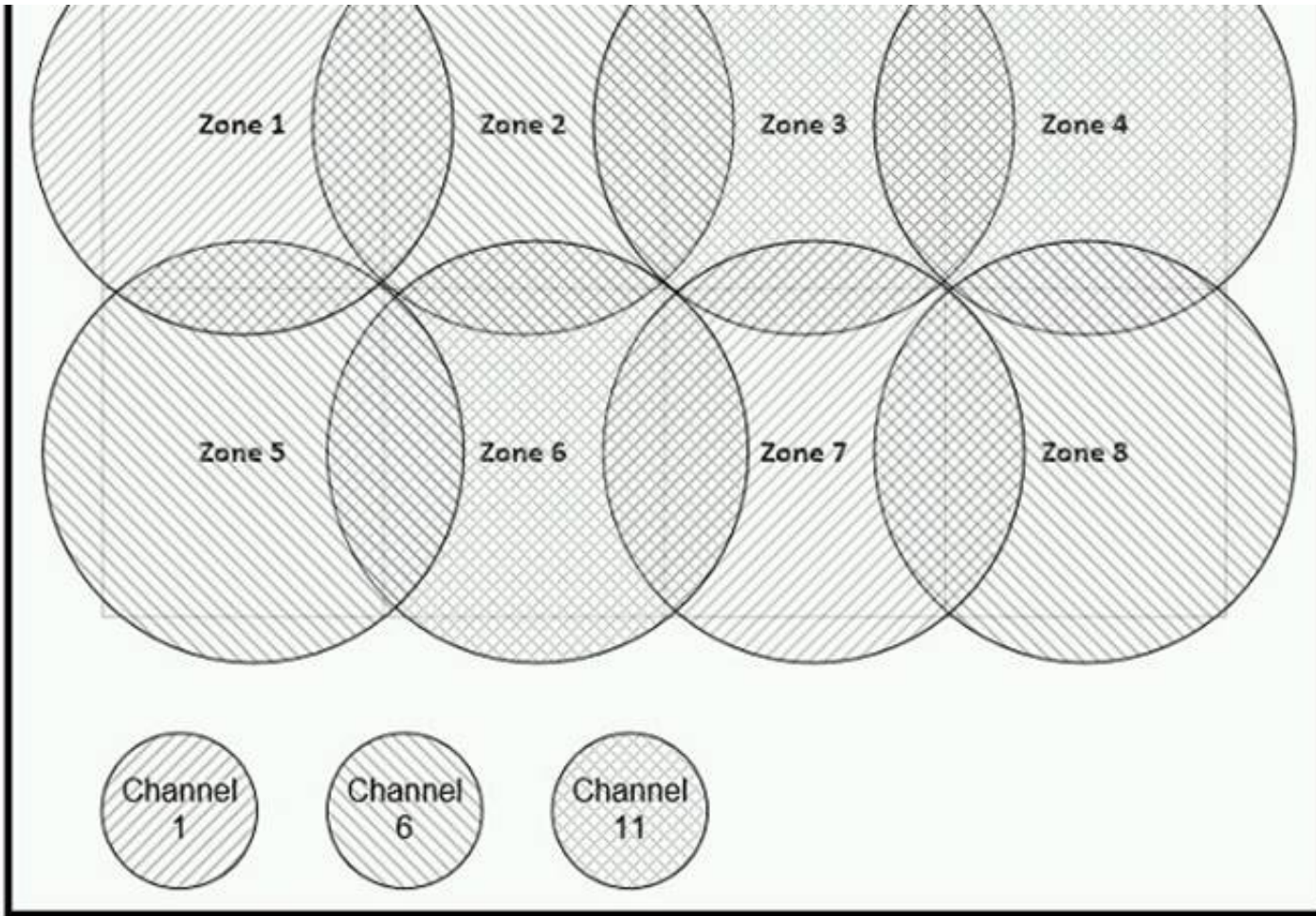
A. action
B. management
C. control
D. data

Answer: B

NEW QUESTION 239
- (Topic 2)
Refer to the exhibit.

Between which zones do wireless users expect to experience intermittent connectivity?

A. between zones 1 and 2
B. between zones 2 and 5
C. between zones 3 and 4
D. between zones 3 and 6

Answer: D

NEW QUESTION 242
- (Topic 2)
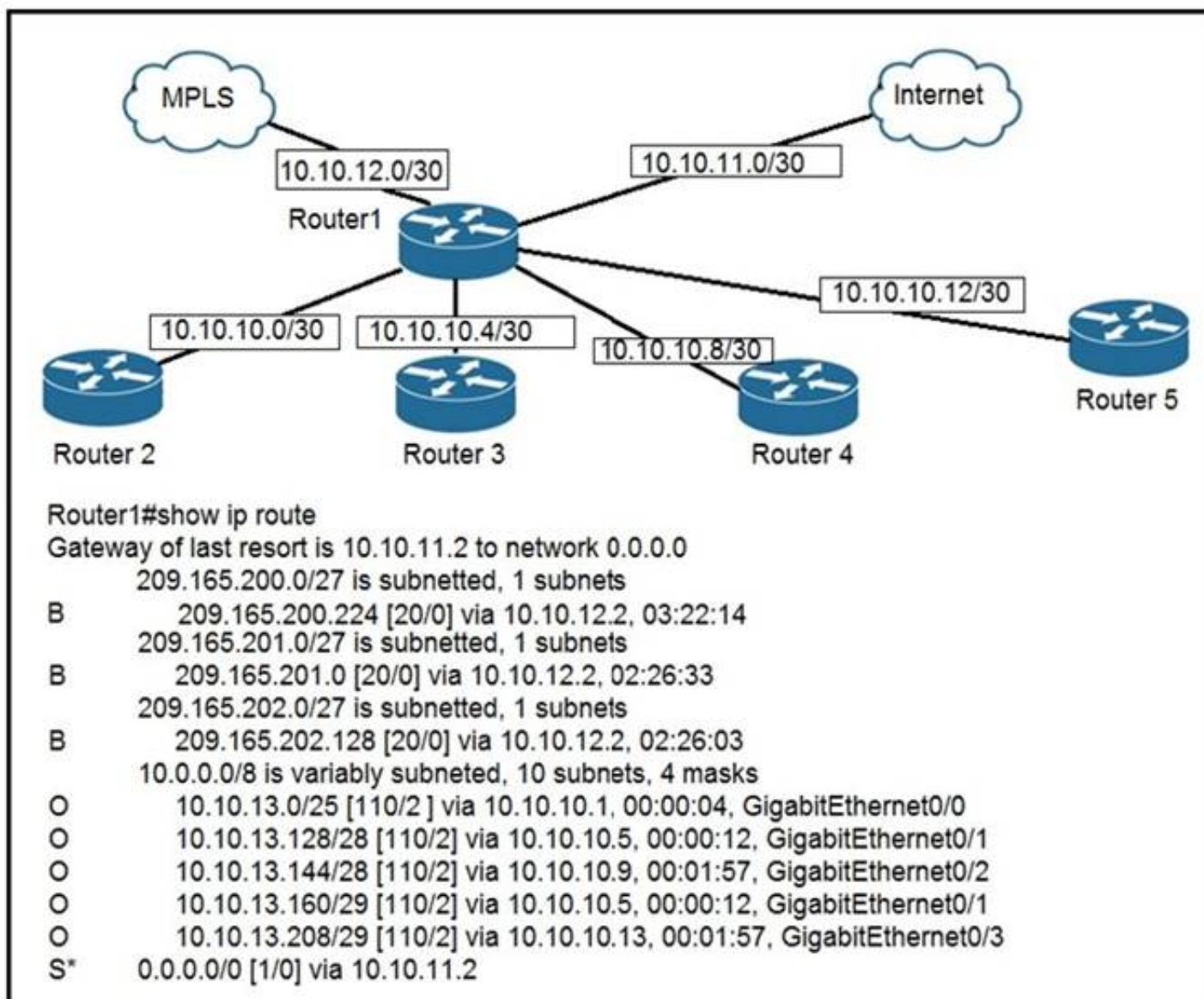Which network plane is centralized and manages routing decisions?

A. policy plane
B. management plane
C. control plane
D. data plane

Answer: C

NEW QUESTION 243
- (Topic 2)
Refer to the exhibit.

```
MPLS                                                    Internet

        10.10.12.0/30              10.10.11.0/30
         Router1

                                                  10.10.10.12/30
  10.10.10.0/30    10.10.10.4/30
                              10.10.10.8/30
                                                              Router 5

  Router 2          Router 3          Router 4
```

```
Router1#show ip route
Gateway of last resort is 10.10.11.2 to network 0.0.0.0
        209.165.200.0/27 is subnetted, 1 subnets
B           209.165.200.224 [20/0] via 10.10.12.2, 03:22:14
        209.165.201.0/27 is subnetted, 1 subnets
B           209.165.201.0 [20/0] via 10.10.12.2, 02:26:33
        209.165.202.0/27 is subnetted, 1 subnets
B           209.165.202.128 [20/0] via 10.10.12.2, 02:26:03
        10.0.0.0/8 is variably subneted, 10 subnets, 4 masks
O           10.10.13.0/25 [110/2 ] via 10.10.10.1, 00:00:04, GigabitEthernet0/0
O           10.10.13.128/28 [110/2] via 10.10.10.5, 00:00:12, GigabitEthernet0/1
O           10.10.13.144/28 [110/2] via 10.10.10.9, 00:01:57, GigabitEthernet0/2
O           10.10.13.160/29 [110/2] via 10.10.10.5, 00:00:12, GigabitEthernet0/1
O           10.10.13.208/29 [110/2] via 10.10.10.13, 00:01:57, GigabitEthernet0/3
S*      0.0.0.0/0 [1/0] via 10.10.11.2
```

To which device does Router1 send packets that are destined to host 10.10.13.165?

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

Answer: B

NEW QUESTION 244
- (Topic 2)
What Is the path for traffic sent from one user workstation to another workstation on a separate switch In a Ihree-Iter architecture model?

A. access - core - distribution - access
B. access - distribution - distribution - access
C. access - core - access
D. access -distribution - core - distribution - access

Answer: D

NEW QUESTION 249
- (Topic 2)
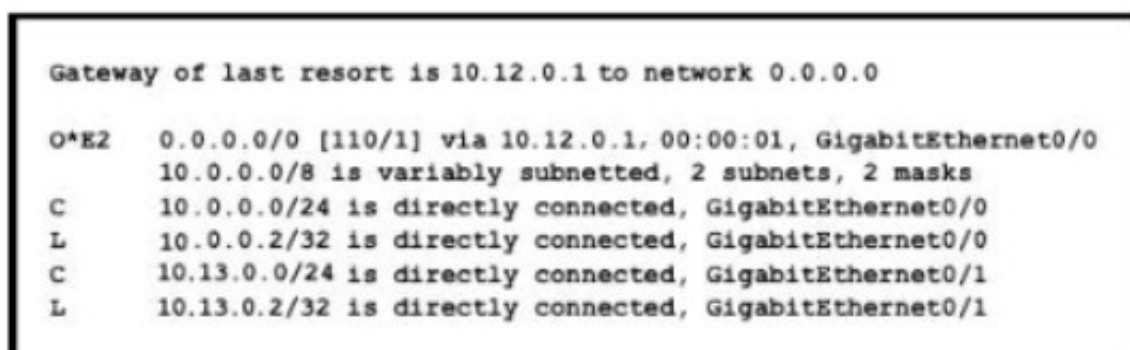Which technology must be implemented to configure network device monitoring with the highest security?

A. IP SLA
B. syslog
C. NetFlow
D. SNMPv3

Answer: C

NEW QUESTION 254
- (Topic 2)
Refer to the exhibit.

```
Gateway of last resort is 10.12.0.1 to network 0.0.0.0

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

If configuring a static default route on the router with the ip route 0.0.0.0 0.0.0.0 10.13.0.1 120 command how does the router respond?

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

Answer: A

Explanation:
Our new static default route has the Administrative Distance (AD) of 120, which is bigger than the AD of OSPF External route (O*E2) so it will not be pushed into the routing table until the current OSPF External route is removed.For your information, if you don't type the AD of 120 (using the command "ip route 0.0.0.0 0.0.0.0 10.13.0.1") then the new static default route would replace the OSPF default route as the default AD of static route is 1. You will see such line in the routing table:S* 0.0.0.0/0 [1/0] via 10.13.0.1

NEW QUESTION 256
- (Topic 2)
What is the function of a server?

A. It transmits packets between hosts in the same broadcast domain.
B. It provides shared applications to end users.
C. It routes traffic between Layer 3 devices.
D. It Creates security zones between trusted and untrusted networks

Answer: B

NEW QUESTION 261
- (Topic 2)
Which port type supports the spanning-tree portfast command without additional configuration?

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

Answer: A

NEW QUESTION 264
- (Topic 2)
Refer to the exhibit.

```
R1# show ip route | begin gateway
Gateway of last resort is 209.165.200.246 to network 0.0.0.0
S*    0.0.0.0/0 [1/0] via 209.165.200.246, Serial0/1/0
      is directly connected, Serial0/1/0
      172.16.0.0/16 is variably subnetted, 2 subnets, 2 masks
S     172.16.3.0/24 [1/0] via 207.165.200.250, Serial0/0/0
O     172.16.3.0/28 [110/84437] via 207.165.200.254, 00:00:28, Serial0/0/1
      207.165.200.0/24 is variably subnetted, 6 subnets, 2 masks
C     207.165.200.244/30 is directly connected, Serial0/1/0
L     207.165.200.245/32 is directly connected, Serial0/1/0
C     207.165.200.248/30 is directly connected, Serial0/0/0
L     207.165.200.249/32 is directly connected, Serial0/0/0
C     207.165.200.252/30 is directly connected, Serial0/0/1
L     207.165.200.253/32 is directly connected, Serial0/0/1
```

A packet is being sent across router R1 to host 172.163.3.14. To which destination does the router send the packet?

A. 207.165.200.246 via Serial0/1/0
B. 207.165.200.254 via Serial0/0/1
C. 207.165.200.254 via Serial0/0/0
D. 207.165.200.250 via Serial/0/0/0

Answer: B

NEW QUESTION 265
- (Topic 2)
Which JSON data type is an unordered set of attribute- value pairs?

A. array
B. string
C. object
D. Boolean

Answer: C

NEW QUESTION 269
- (Topic 2)
What are two characteristics of a controller-based network? (Choose two)

A. The administrator can make configuration updates from the CLI
B. It uses northbound and southbound APIs to communicate between architectural layers
C. It moves the control plane to a central point.
D. It decentralizes the control plane, which allows each device to make its own forwarding decisions
E. It uses Telnet to report system issues.

Answer: BC

NEW QUESTION 270
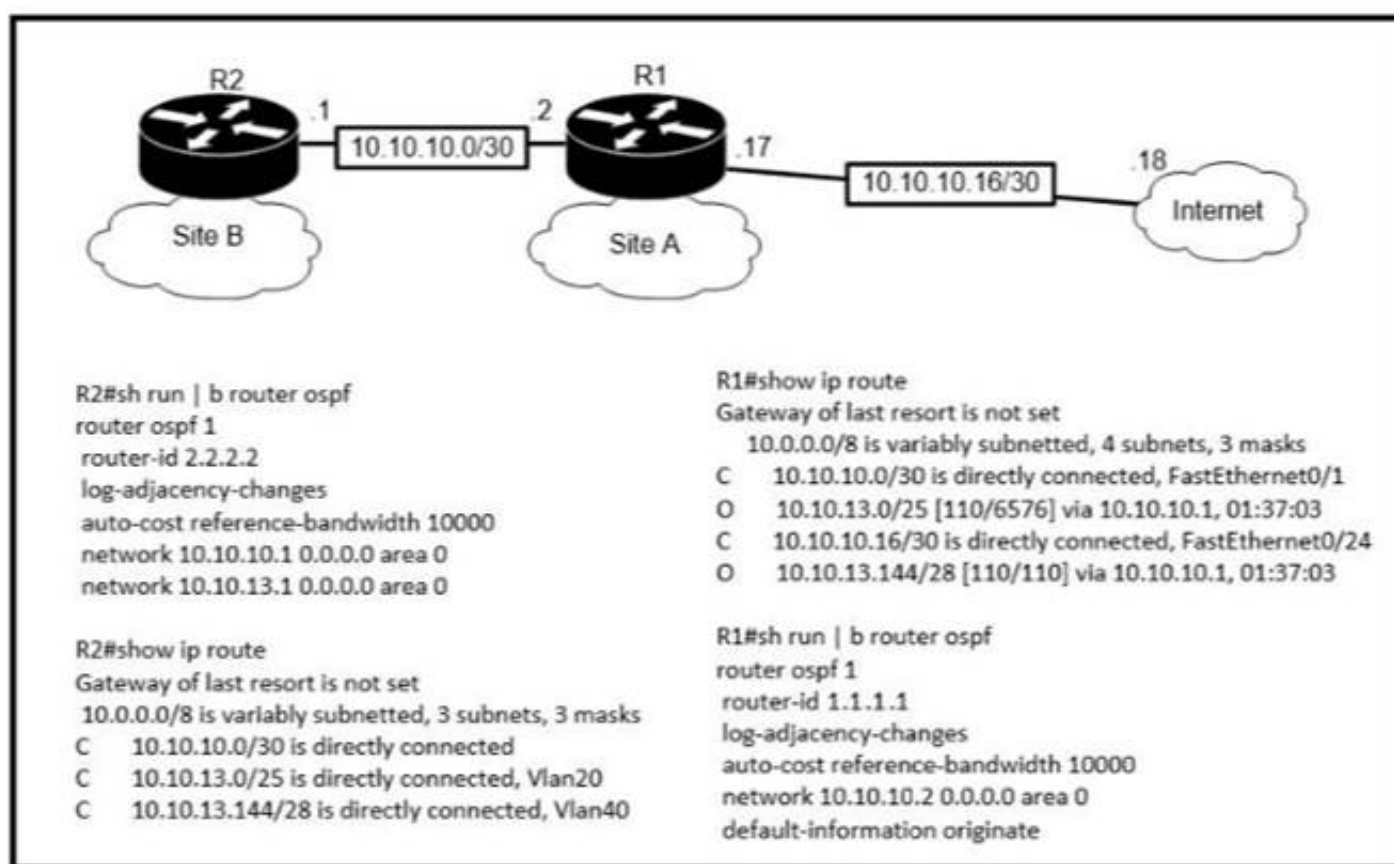- (Topic 2)
What is a function of a Layer 3 switch?

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

Answer: A

NEW QUESTION 271
- (Topic 2)
Refer to the exhibit.

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

A. Traffic to 10.10.13.0.25 is load balanced out of multiple interfaces
B. Route 10.10.13.0/25 is updated in the routing table as being learned from interface Gi0/1.
C. Traffic to 10.10.13.0/25 is asymmeteical
D. Route 10.10.13.0/25 learned via the GiO/0 interface remains in the routing table

Answer: D

NEW QUESTION 275
- (Topic 2)
Which two must be met before SSH can operate normally on a Cisco IOS switch? (Choose two)

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

Answer: AB

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

NEW QUESTION 276
- (Topic 2)
Which type of organization should use a collapsed-core architecture?

A. large and requires a flexible, scalable network design
B. large and must minimize downtime when hardware fails

C. small and needs to reduce networking costs currently
D. small but is expected to grow dramatically in the near future

Answer: C

Explanation:
 A collapsed-core architecture is a limited investment for a small company, and may be efficient and productive for a limited time.

NEW QUESTION 277
- (Topic 2)
An engineer needs to configure LLDP to send the port description time length value (TLV). What command sequence must be implemented?

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

Answer: B

NEW QUESTION 279
- (Topic 1)
Why was the RFC 1918 address space defined?

A. conserve public IPv4 addressing
B. preserve public IPv6 address space
C. reduce instances of overlapping IP addresses
D. support the NAT protocol

Answer: A

NEW QUESTION 280
- (Topic 1)
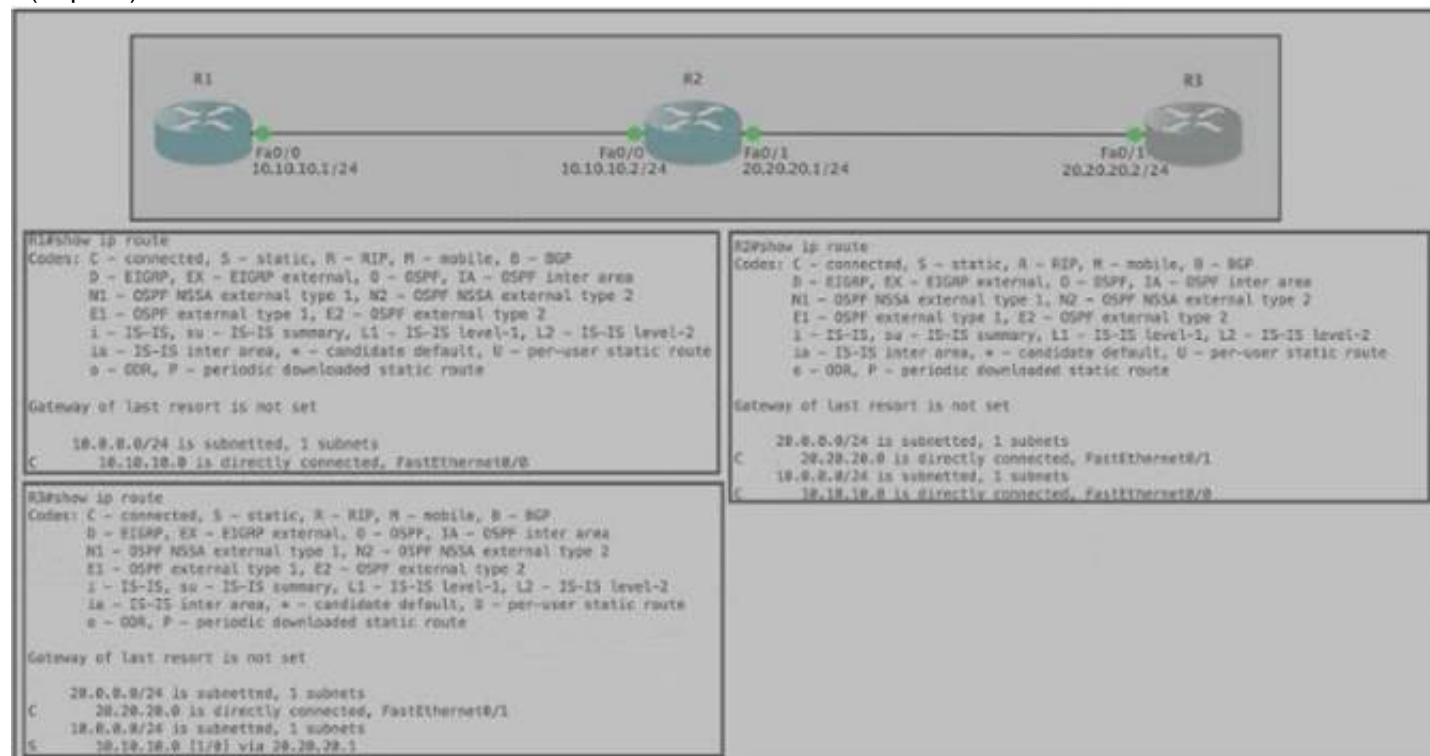
Refer to the exhibit Router R1 Fa0/0 is unable to ping router R3 Fa0'1. Which action must be taken in router R1 to help resolve the configuration issue?

A. set the default network as 20.20.20.0/24
B. set the default gateway as 20.20.20.2
C. configure a static route with Fa0/1 as the egress interface to reach the 20.20.20.0/24 network
D. configure a static route with 10.10.10.2 as the next hop to reach the 20.20.20.0/24 network

Answer: D

NEW QUESTION 282
- (Topic 1)
What is the difference regarding reliability and communication type between TCP and UDP?

A. TCP is reliable and is a connection-oriented protocol UDP is not reliable and is a connectionless protocol
B. TCP is not reliable and is a connection-oriented protocol; UDP is reliable and is aconnectionless protocol
C. TCP is not reliable and is a connectionless protocol; UDP is reliable and is a connection- oriented protocol
D. TCP is reliable and is a connectionless protocol; UDP is not reliable and is a connection- oriented protocol

Answer: A

NEW QUESTION 284
- (Topic 1)
Which switch technology establishes a network connection immediately when it is plugged in?

A. PortFast
B. BPDU guard
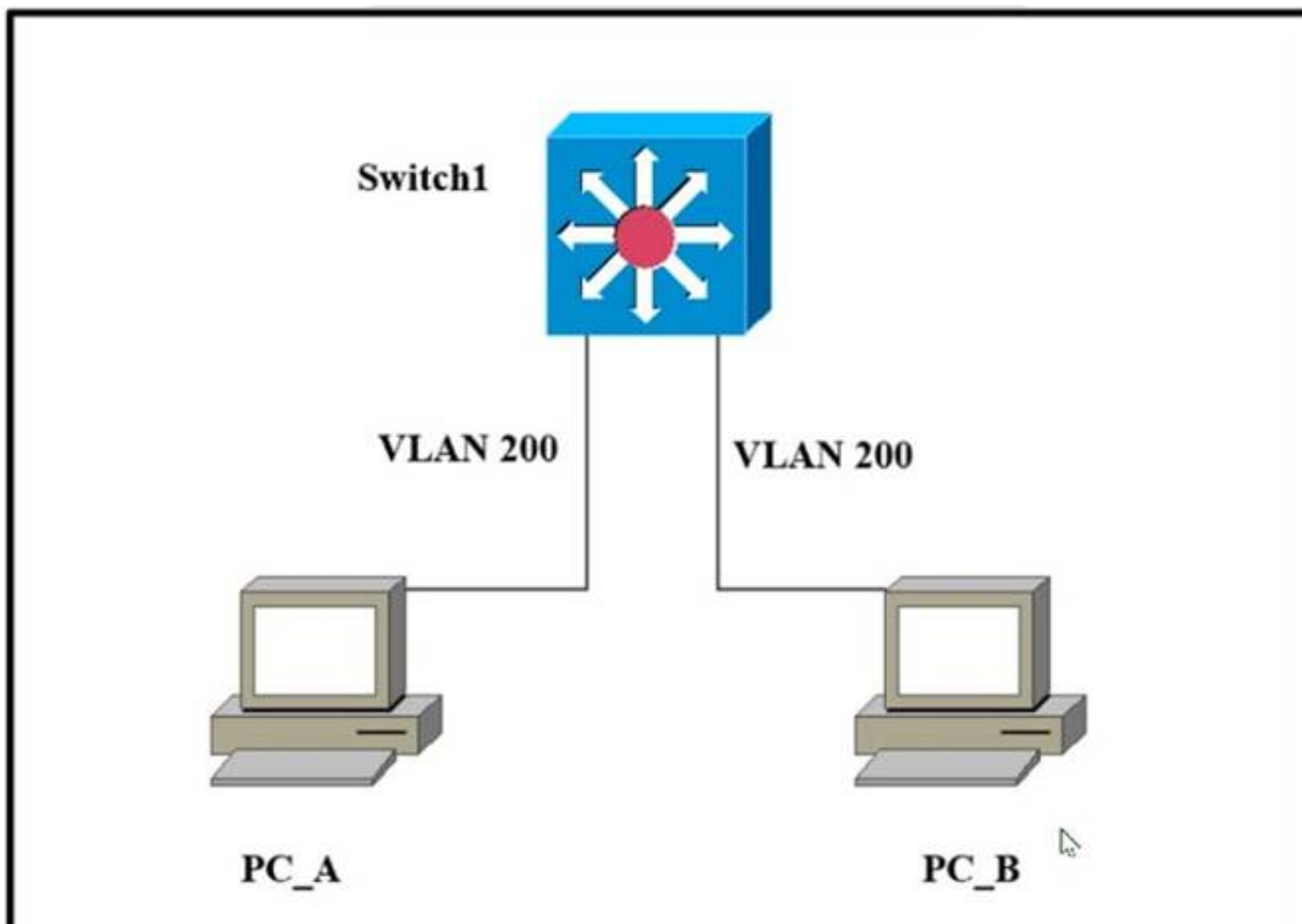C. UplinkFast
D. BackboneFast

Answer: A

Explanation:
 PortFast is useful to connect hosts and switches to a switch. Access layer switches are more frequently "plugged in" and "plugged out" than distribution or core layer switches. Also, this feature's target is just to minimize STP convergence time.

NEW QUESTION 289
- (Topic 1)
Refer to the exhibit.

Which outcome is expected when PC_A sends data to PC_B?

A. The switch rewrites the source and destination MAC addresses with its own.
B. The source MAC address is changed.
C. The source and destination MAC addresses remain the same.
D. The destination MAC address is replaced with ffff.ffff.ffff.

Answer: C

NEW QUESTION 292
- (Topic 1)
Which command automatically generates an IPv6 address from a specified IPv6 prefix and MAC address of an interface?

A. ipv6 address dhcp
B. ipv6 address 2001:DB8:5:112::/64 eui-64
C. ipv6 address autoconfig
D. ipv6 address 2001:DB8:5:112::2/64 link-local

Answer: C

Explanation:
 The "ipv6 address autoconfig" command causes the device to perform IPv6 stateless address autoconfiguration to discover prefixes on the link and then to add the EUI-64 based addresses to theinterface.Addresses are configured depending on the prefixes received in Router Advertisement (RA)messages.The device will listen for RA messages which are transmitted periodically from the router (DHCPServer).This RA message allows a host to create a global IPv6 address from:+ Its interface identifier (EUI- 64 address)+ Link Prefix (obtained via RA)Note: Global address is the combination of Link Prefix and EUI-64 address

NEW QUESTION 296
- (Topic 1)
What are two benefits of controller-based networking compared to traditional networking?

A. controller-based increases network bandwidth usage, while traditional lightens the load on the network.
B. controller-based inflates software costs, while traditional decreases individual licensing costs
C. Controller-based reduces network configuration complexity, while traditional increases the potential for errors
D. Controller-based provides centralization of key IT function
E. While traditional requires distributes management function
F. controller-based allows for fewer network failure, while traditional increases failure rates.

Answer: CD

Explanation:
Cisco DNA Center Device Management
* 3. Monitor the cloud for software update
* 5. Uses CLI templates to apply a consistent configuration to multiple devices at an individual location
* 6. Uses NetFlow to analyse potential security threats throughout the network and take appropriate action on that traffic
Traditional device management
* 2. Manages device configuration on a per-device basis
* 4. Security is managed near the perimeter of the network with firewalls, VPNs, and IPS
? Implements changes via an SSH terminal

NEW QUESTION 297
- (Topic 1)
In QoS, which prioritization method is appropriate for interactive voice and video?

A. expedited forwarding
B. traffic policing
C. round-robin scheduling
D. low-latency queuing

Answer: D

NEW QUESTION 298
- (Topic 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

Explanation:
 Reference:
https://www.cisco.com/c/en/us/td/docs/switches/lan/catalyst3560/software/release/12-2_55_se/configuration/guide/3560_scg/swstpopt.html

NEW QUESTION 302
DRAG DROP - (Topic 1)
Drag and drop the IPv4 network subnets from the left onto the correct usable host ranges on the right

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

A. Mastered
B. Not Mastered

Answer: A

Explanation:

172.28.228.144/18	172.28.228.144/23
172.28.228.144/21	172.28.228.144/21
172.28.228.144/23	172.28.228.144/25
172.28.228.144/25	172.28.228.144/29
172.28.228.144/29	172.28.228.144/18

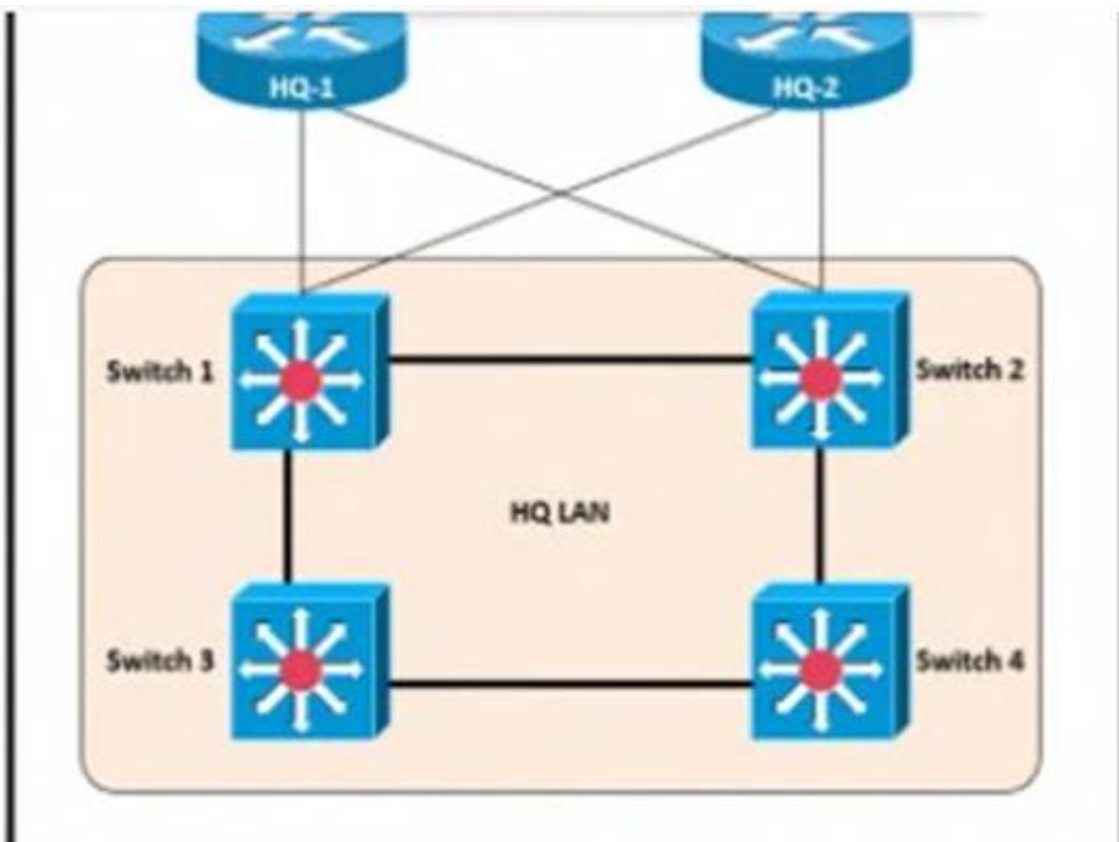**NEW QUESTION 306**
- (Topic 1)
Refer to the exhibit.

After the election process what is the root bridge in the HQ LAN?

Switch 1: 0C:E0:38:58:15:77
Switch 2: 0C:0E:15:22:1A:61
Switch 3: 0C:0E:15:1D:3C:9A
Switch 4: 0C:E0:19:A1:4D:16

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

Answer: C

Explanation:
The root bridge is determined by the lowest bridge ID, which consists of the priority value and the MAC address. Because the priority values of all of the switches are not avalable, the MAC address is used to determine the root bridge. Because S3 has the lowest MAC address, S3 becomes the root bridge.

NEW QUESTION 310
- (Topic 1)
When configuring a WLAN with WPA2 PSK in the Cisco Wireless LAN Controller GUI, which two formats are available to select? (Choose two)

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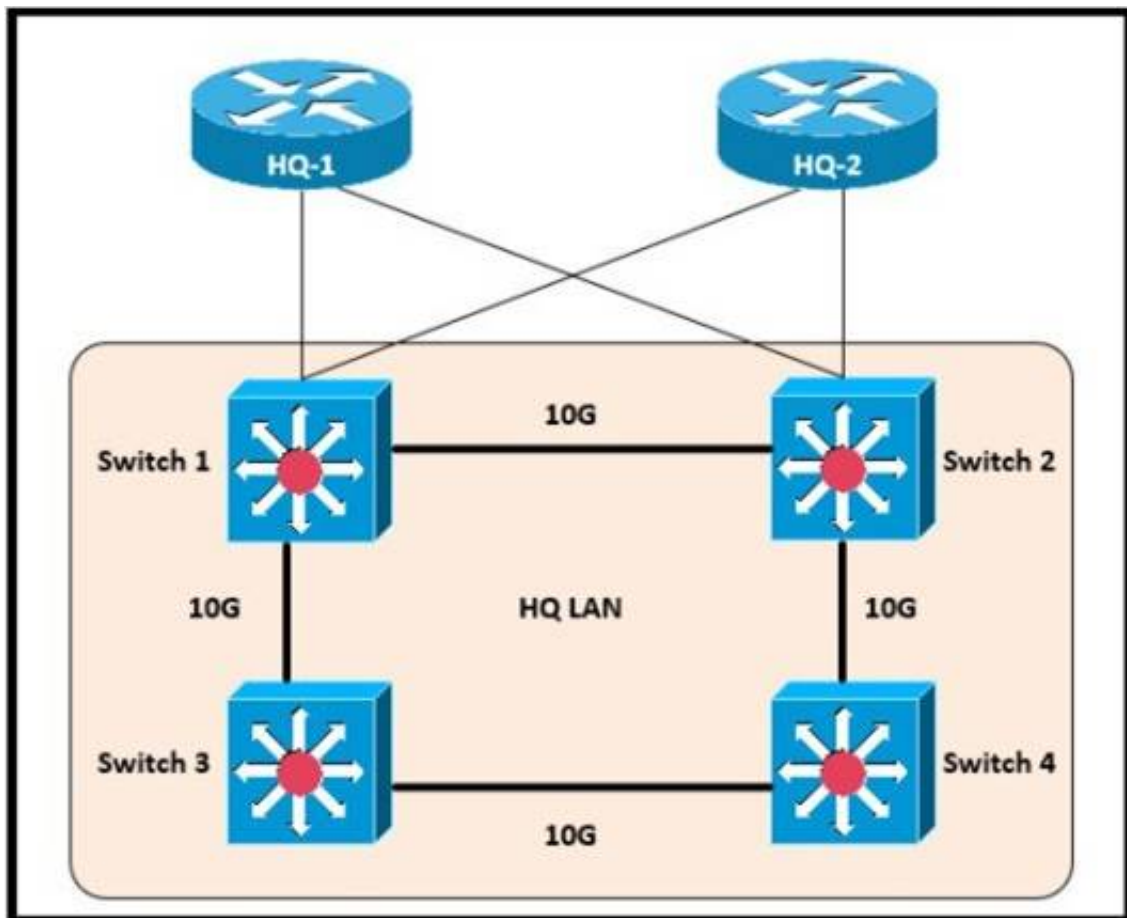C. binary
D. decimal
E. hexadecimal

Answer: AE

Explanation:

Reference: https://www.cisco.com/c/en/us/td/docs/wireless/controller/7-4/configuration/guides/consolidated/b_cg74_CONSOLIDATED/b_cg74_CONSOLIDATED_chapter_01010001.html

NEW QUESTION 315
- (Topic 1)
Refer to the exhibit.

Which switch becomes the root of the spanning tree for VLAN 110?

Switch 1
VLAN 110 - 32778 0018.184e.3c00
Switch 2
VLAN 110 - 24586 001a.e3ff.a680
Switch 3
VLAN 110 - 28682 0022.55cf.cc00
Switch 4
VLAN 110 - 64000 0e38.7363.657f

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

Answer: B

NEW QUESTION 320
- (Topic 1)
What are two functions of a Layer 2 switch? (Choose two)

A. acts as a central point for association and authentication servers
B. selects the best route between networks on a WAN
C. moves packets within a VLAN
D. moves packets between different VLANs
E. makes forwarding decisions based on the MAC address of a packet

Answer: AE

NEW QUESTION 325
- (Topic 1)
Which command on a port enters the forwarding state immediately when a PC is connected to it?

A. switch(config)#spanning-tree portfast default
B. switch(config)#spanning-tree portfast bpduguard default
C. switch(config-if)#spanning-tree portfast trunk
D. switch(config-if)#no spanning-tree portfast

Answer: C

NEW QUESTION 326
- (Topic 1)
What is a characteristic of cloud-based network topology?

A. wireless connections provide the sole access method to services
B. onsite network services are provided with physical Layer 2 and Layer 3 components
C. services are provided by a public, private, or hybrid deployment
D. physical workstations are configured to share resources

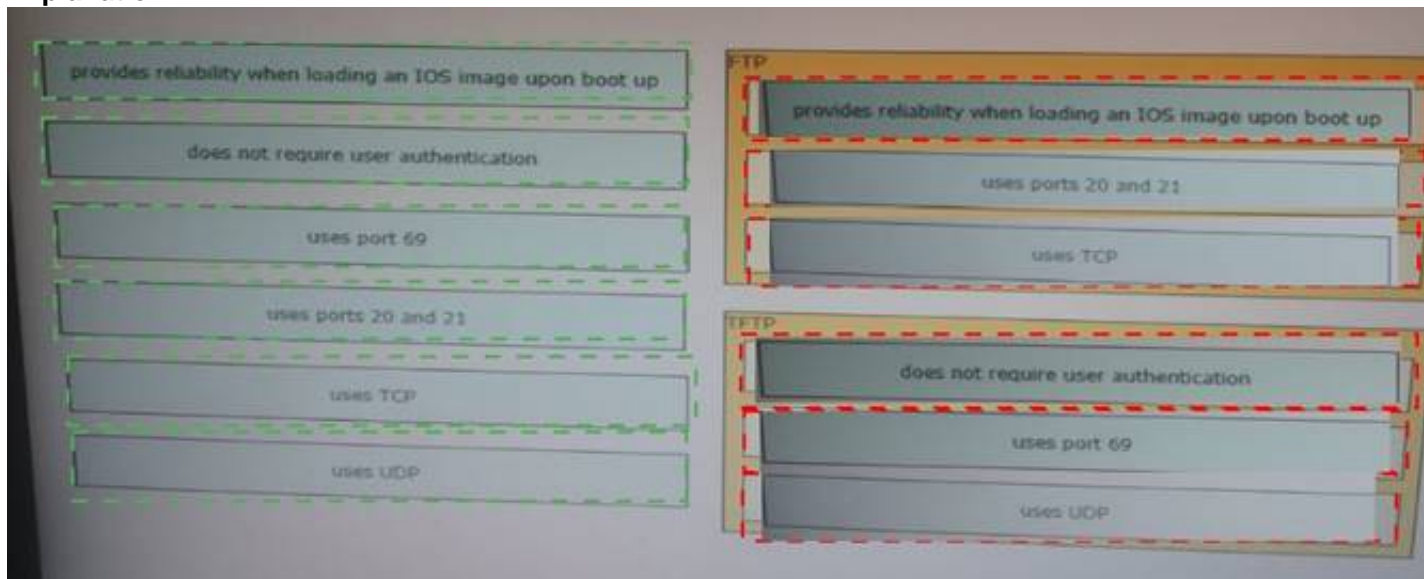**Answer:** A

NEW QUESTION 327
DRAG DROP - (Topic 1)
Drag and drop the descriptions of file-transfer protocols from the left onto the correct protocols on the right.
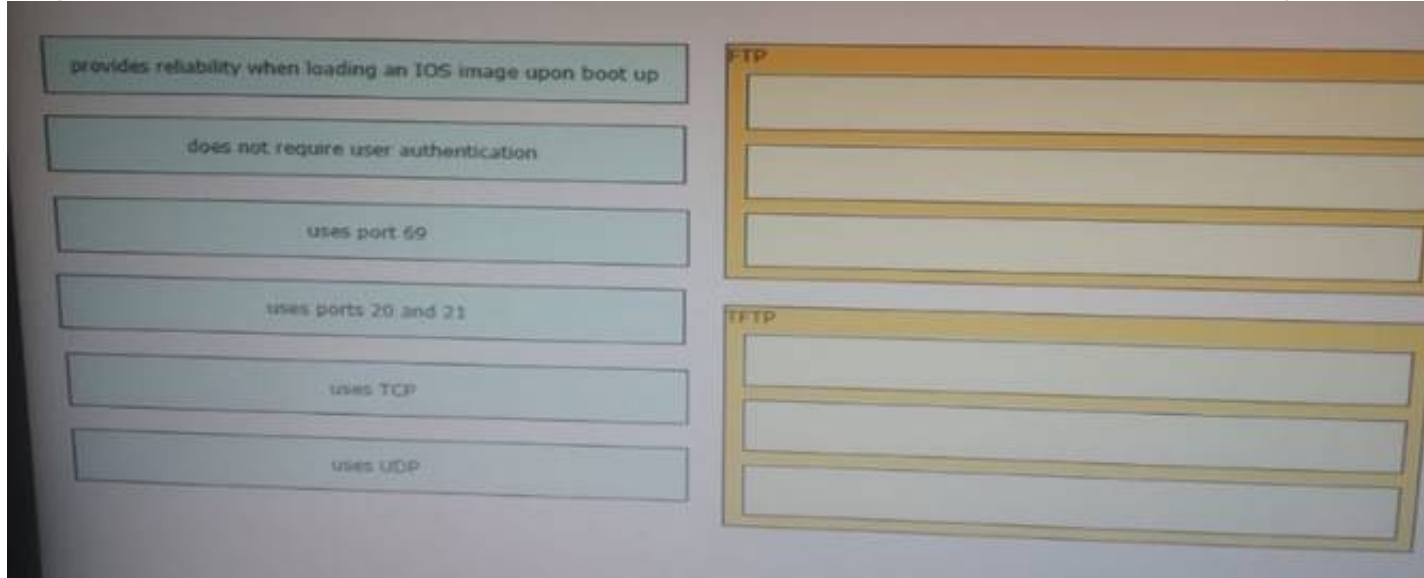
A. Mastered
B. Not Mastered

Answer: A

Explanation:

NEW QUESTION 331
- (Topic 1)
Which resource is able to be shared among virtual machines deployed on the same physical server?

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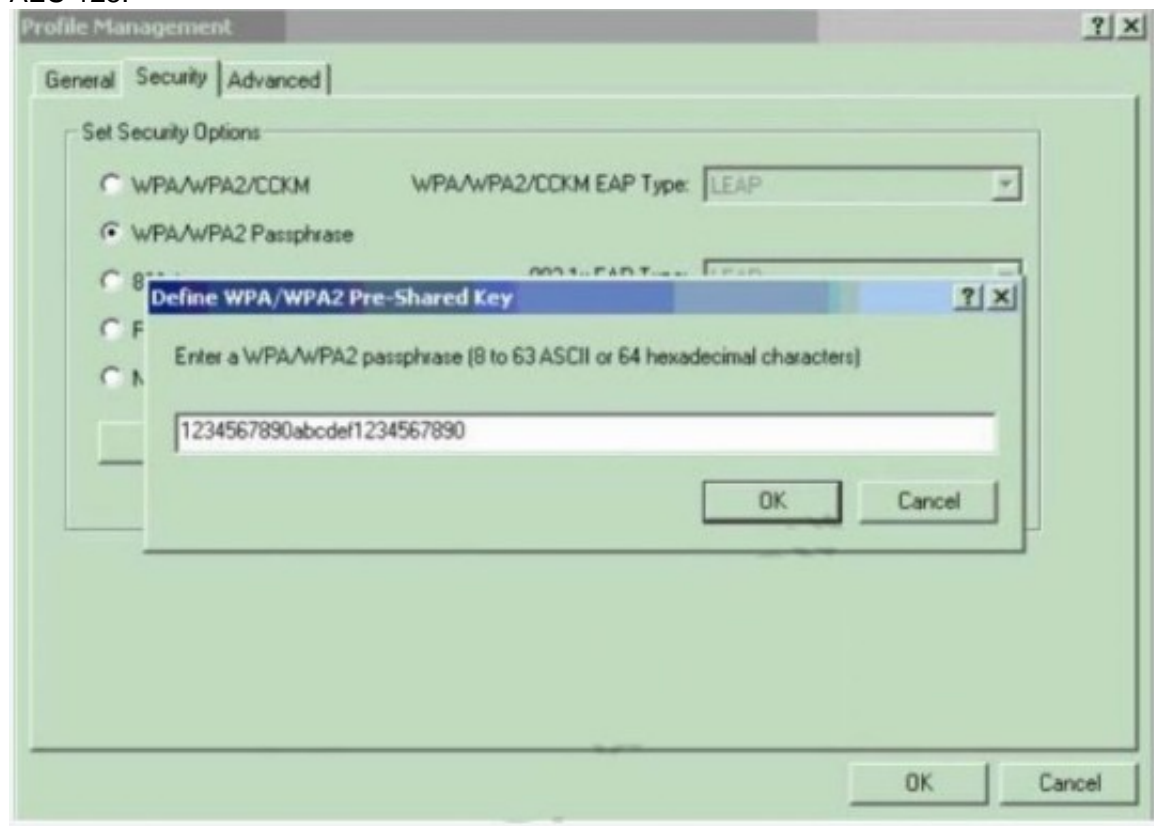
Answer: C

NEW QUESTION 333
- (Topic 1)
Which type of wireless encryption is used for WPA2 in preshared key mode?

A. TKIP with RC4
B. RC4
C. AES-128
D. AES-256

Answer: D

Explanation:
We can see in this picture we have to type 64 hexadecimal characters (256 bit) for the WPA2 passphrase so we can deduce the encryption is AES-256, not AES-128.

https://www.cisco.com/c/en/us/support/docs/wireless-mobility/wireless-lan-wlan/67134- wpa2-config.html

NEW QUESTION 334
- (Topic 1)
What is a network appliance that checks the state of a packet to determine whether the packet is legitimate?

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

Answer: C

NEW QUESTION 339
- (Topic 1)
What is an advantage of Cisco DNA Center versus traditional campus device management?

A. It supports numerous extensibility options including cross-domain adapters and third- party SDKs.
B. It supports high availability for management functions when operating in cluster mode.
C. It enables easy autodiscovery of network elements m a brownfield deployment.
D. It is designed primarily to provide network assurance.

Answer: A

NEW QUESTION 340
- (Topic 1)
What must be considered when using 802:11 ta?

A. It is compatible with 802 lib- and 802 11-compliant wireless devices
B. It is used in place of 802 11b/g when many nonoverlapping channels are required
C. It is susceptible to interference from 2 4 GHz devices such as microwave ovens.
D. It is chosen over 802 11b/g when a lower-cost solution is necessary

Answer: A

NEW QUESTION 343
- (Topic 1)
Which mode must be used to configure EtherChannel between two switches without using a negotiation protocol?

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

Answer: A

Explanation:
 The Static Persistence (or "on" mode) bundles the links unconditionally and no negotiation protocol is used. In this mode, neither PAgP nor LACP packets are sent or received.

NEW QUESTION 348

DRAG DROP - (Topic 1)
Drag and drop the characteristics of network architectures from the left onto the type of architecture on the right.

single device handles the core and the distribution layer

enhances network availability

more cost-effective than other options

most appropriate for small network designs

separate devices handle the core and the distribution layer

Collapsed Core

Three-Tier

A. Mastered
B. Not Mastered

Answer: A

Explanation:

single device handles the core and the distribution layer

enhances network availability

more cost-effective than other options

most appropriate for small network designs

separate devices handle the core and the distribution layer

Collapsed Core

single device handles the core and the distribution layer

more cost-effective than other options

most appropriate for small network designs

Three-Tier

enhances network availability

separate devices handle the core and the distribution layer

NEW QUESTION 352
- (Topic 1)
Refer to the exhibit.

```
ip arp inspection vlan 2-10
interface fastethernet 0/1
        ip arp inspection trust
```
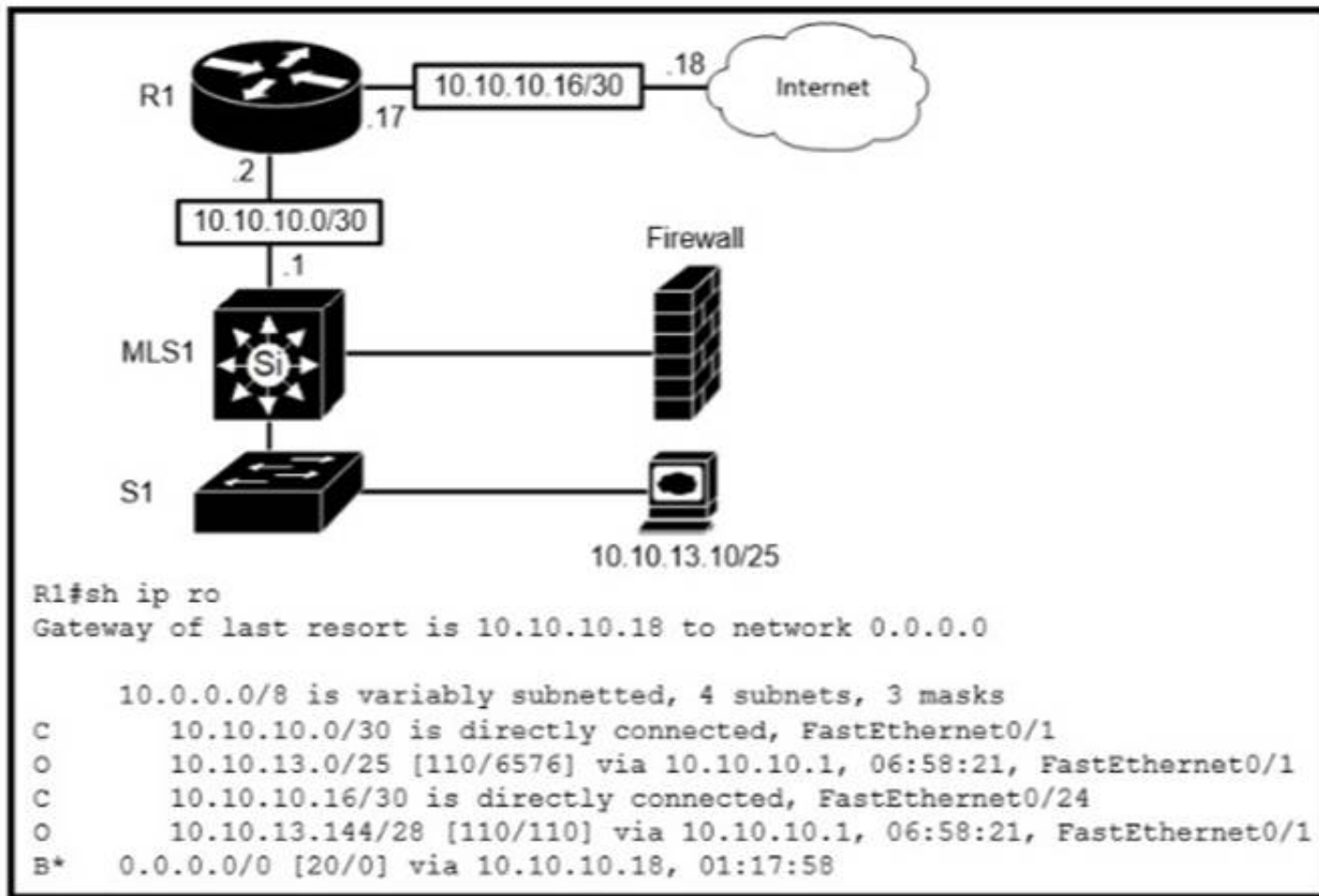
If the network environment is operating normally, which type of device must be connected to interface FastEthernet 0/1?

A. DHCP client
B. access point
C. router
D. PC

Answer: C

NEW QUESTION 354
- (Topic 1)
Refer to the exhibit.

```
                                                            .18
R1                          10.10.10.16/30              Internet
                       .17

        .2
   10.10.10.0/30                      Firewall
        .1

 MLS1    Si

 S1

                                   10.10.13.10/25

R1#sh ip ro
Gateway of last resort is 10.10.10.18 to network 0.0.0.0

     10.0.0.0/8 is variably subnetted, 4 subnets, 3 masks
C       10.10.10.0/30 is directly connected, FastEthernet0/1
O       10.10.13.0/25 [110/6576] via 10.10.10.1, 06:58:21, FastEthernet0/1
C       10.10.10.16/30 is directly connected, FastEthernet0/24
O       10.10.13.144/28 [110/110] via 10.10.10.1, 06:58:21, FastEthernet0/1
B*    0.0.0.0/0 [20/0] via 10.10.10.18, 01:17:58
```

Which type of route does R1 use to reach host 10.10.13.10/32?

A. floating static route
B. host route
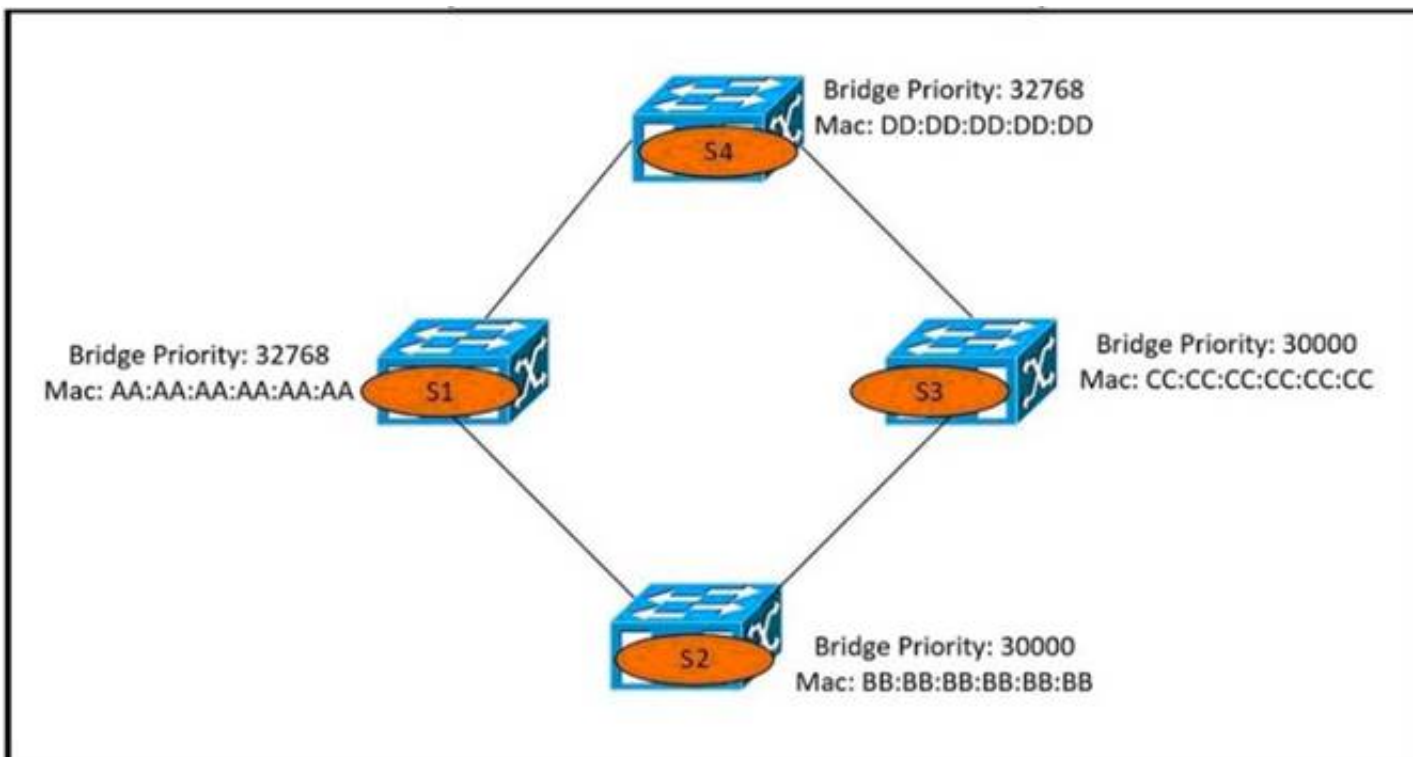C. default route
D. network route

Answer: D

Explanation:
From the output, we see R1 will use the entry "O 10.10.13.0/25 [110/4576] via 10.10.10.1, …" to reach host 10.10.13.10. This is a network route.Note: "B* 0.0.0.0/0…" is a default route.

NEW QUESTION 357
- (Topic 1)
Refer to the exhibit.

```
                              Bridge Priority: 32768
                              Mac: DD:DD:DD:DD:DD
                    S4


Bridge Priority: 32768                    Bridge Priority: 30000
Mac: AA:AA:AA:AA:AA:AA    S1         S3   Mac: CC:CC:CC:CC:CC:CC


                    S2        Bridge Priority: 30000
                              Mac: BB:BB:BB:BB:BB:BB
```

Which switch becomes the root bridge?

A. S1
B. S2
C. S3
D. S4

Answer: B

NEW QUESTION 362
- (Topic 1)
Which two encoding methods are supported by REST APIs? (Choose two)

A. YAML
B. JSON

C. EBCDIC
D. SGML
E. XML

Answer: BE

Explanation:
 https://www.cisco.com/c/en/us/td/docs/switches/datacenter/aci/apic/sw/2-x/rest_cfg/2_1_x/b_Cisco_APIC_REST_API_Configuration_Guide/b_Cisco_APIC_REST
_ API_Configuration_Guide_chapter_01.html
Reference:
https://www.cisco.com/c/en/us/td/docs/switches/datacenter/nexus1000/sw/5_x/rest_api_co
nfig/b_Cisco_N1KV_VMware_REST_API_Config_5x/b_Cisco_N1KV_VMware_REST_API
_Config_5x_chapter_010.pdf
The Application Policy Infrastructure Controller (APIC) REST API is a programmatic interface that uses REST architecture. The API accepts and returns HTTP (not
enabled by default) or HTTPS messages that contain JavaScript Object Notation (JSON) or Extensible Markup Language (XML) documents.

NEW QUESTION 363
- (Topic 1)
What is the purpose of a southbound API in a control based networking architecture?

A. Facilities communication between the controller and the applications
B. Facilities communication between the controller and the networking hardware
C. allows application developers to interact with the network
D. integrates a controller with other automation and orchestration tools.

Answer: B

Explanation:
 https://www.ciscopress.com/articles/article.asp?p=2995354&seqNum=2#:~:text=The%20S
outhbound%20Interface,communicate%20to%20the%20networking%20devices.&text=The
%20overall%20goal%20is%20network,from%20being%20only%20a%20protocol.
The Southbound Interface
In a controller-based network architecture, the controller needs to communicate to the networking devices.

NEW QUESTION 364
- (Topic 1)
How does a switch process a frame received on Fa0/1 with the destination MAC address of 0e38.7363.657b when the table is missing the address?

A. It drops the frame immediately.
B. It forwards the frame back out of interface Fa0/1.
C. It floods the frame to all interfaces except Fa0/1.
D. It holds the frame until the MAC address timer expires and then drops the frame.

Answer: C

NEW QUESTION 365
DRAG DROP - (Topic 1)
Drag and drop the AAA functions from the left onto the correct AAA services on the right

A. Mastered
B. Not Mastered

Answer: A

Explanation:

Authentication	
records user activities	identifies the user
restricts the services that are available to a user	verifies the password associated with a user

	Authorization
identifies the user	restricts the services that are available to a user
controls the actions that a user can perform	controls the actions that a user can perform

	Accounting
provides analytical information for the network administrator	provides analytical information for the network administrator
verifies the password associated with a user	records user activities
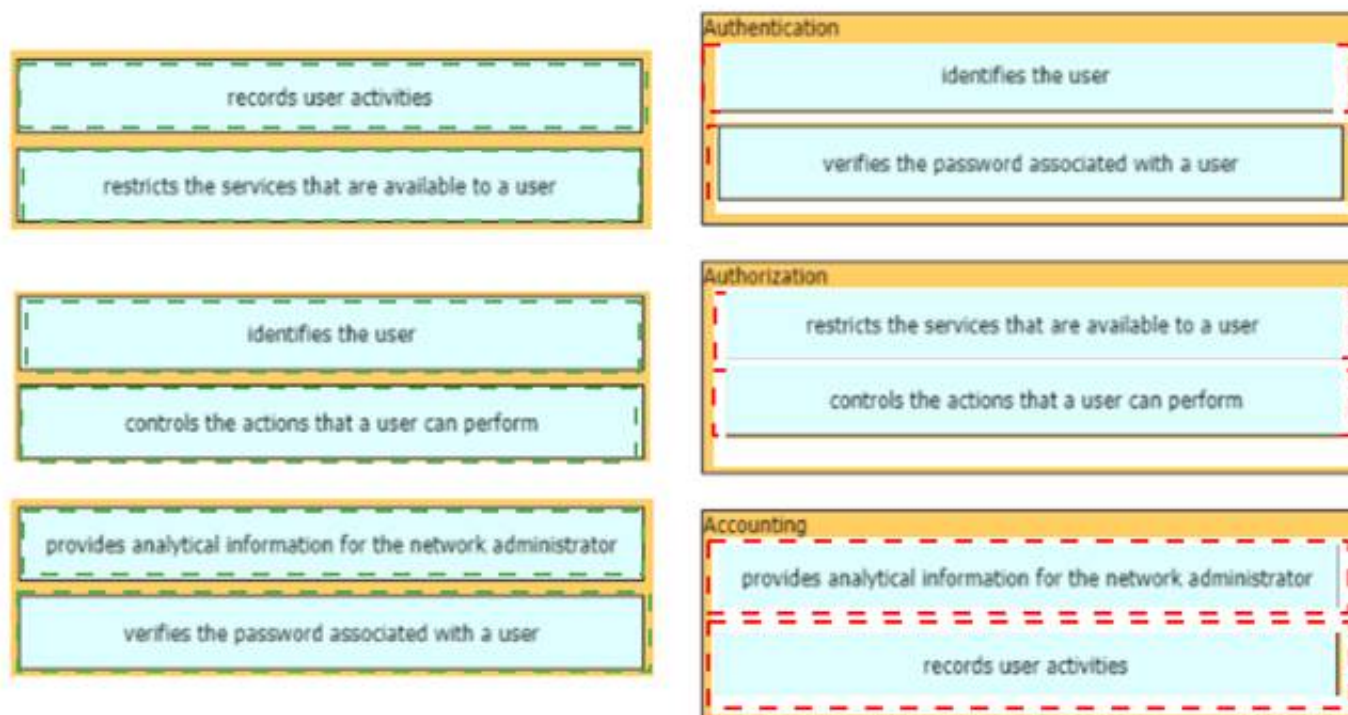
NEW QUESTION 368
- (Topic 1)
What is the function of a hub-and-spoke WAN topology?

A. allows access restrictions to be implemented between subscriber sites.
B. provides direct connections between subscribers
C. supports Layer 2 VPNs
D. supports application optimization

Answer: B

NEW QUESTION 369
- (Topic 1)
Which action does the router take as it forwards a packet through the network?

A. The router replaces the original source and destination MAC addresses with the sending router MAC address as the source and neighbor MAC address as the destination
B. The router encapsulates the original packet and then includes a tag that identifies the source router MAC address and transmits it transparently to the destination
C. The router encapsulates the source and destination IP addresses with the sending router IP address as the source and the neighbor IP address as the destination
D. The router replaces the source and destination labels with the sending router interface label as a source and the next hop router label as a destination

Answer: A

NEW QUESTION 374
- (Topic 1)
An engineer needs to add an old switch back into a network. To prevent the switch from corrupting the VLAN database which action must be taken?

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

Answer: A

NEW QUESTION 376
- (Topic 1)
Which CRUD operation modifies an existing table or view?

A. read
B. create
C. replace
D. update

Answer: D

NEW QUESTION 381
- (Topic 1)
What is the function of a controller in controller-based networking?

A. It serves as the centralized management point of an SDN architecture.
B. It centralizes the data plane for the network.

C. It is the card on a core router that maintains all routing decisions for a campus.
D. It is a pair of core routers that maintain all routing decisions for a campus

Answer: A

NEW QUESTION 386
- (Topic 1)
An engineer is asked to protect unused ports that are configured in the default VLAN on a switch.
Which two steps will fulfill the request? (Choose two)

A. Configure the ports in an EtherChannel.
B. Administratively shut down the ports
C. Configure the port type as access and place in VLAN 99
D. Configure the ports as trunk ports
E. Enable the Cisco Discovery Protocol

Answer: BC

NEW QUESTION 391
- (Topic 1)
Refer to the exhibit.

```
switch(config)#interface gigabitEthernet 1/11

switch(config-if)#switchport mode access

switch(config-if)#spanning-tree portfast

switch(config-if)#spanning-tree bpduguard enable
```

What is the result if Gig1/11 receives an STP BPDU?

A. The port transitions to STP blocking
B. The port transitions to the root port
C. The port immediately transitions to STP forwarding.
D. The port goes into error-disable state

Answer: D

NEW QUESTION 393
- (Topic 1)
What is a difference between local AP mode and FiexConnet AP mode?

A. Local AP mode creates two CAPWAP tunnels per AP to the WLC
B. FiexConnect AP mode fails to function if the AP loses connectivity with the WLC
C. FlexConnect AP mode bridges the traffic from the AP to the WLC when local switching is configured
D. Local AP mode causes the AP to behave as if it were an autonomous AP

Answer: A

NEW QUESTION 395
- (Topic 1)
Refer to the exhibit.

```
iBGP route 10.0.0.0/30
RIP route 10.0.0.0/30
OSPF route 10.0.0.0/16
OSPF route 10.0.0.0/30
EIGRP route 10.0.0.1/32
```

A router reserved these five routes from different routing information sources. Which two routes does the router install in its routing table? (Choose two)

A. RIP route 10.0.0.0/30
B. iBGP route 10.0.0.0/30
C. OSPF route 10.0.0.0/30
D. EIGRP route 10.0.0.1/32
E. OSPF route 10.0.0.0/16

Answer: CD

NEW QUESTION 396
- (Topic 1)
How will Link Aggregation be Implemented on a Cisco Wireless LAN Controller?

A. One functional physical port is needed to pass client traffic.
B. The EthernetChannel must be configured in "mode active".
C. When enabled, the WLC bandwidth drops to 500 Mbps.
D. To pass client traffic, two or more ports must be configured.

Answer: A

Explanation:
 https://www.cisco.com/c/en/us/td/docs/wireless/controller/7-5/configuration-guide/b_cg75/b_cg75_chapter_0100010.html

NEW QUESTION 401
- (Topic 1)
Which MAC address is recognized as a VRRP virtual address?

A. 0000.5E00.010a
B. 0005.3711.0975
C. 0000.0C07.AC99
D. 0007.C070/AB01

Answer: A

Explanation:
 With VRRP, the virtual router's MAC address is 0000.5E00.01xx , in which xx is the VRRP group.

NEW QUESTION 404
- (Topic 1)
What does a switch use to build its MAC address table?

A. VTP
B. DTP
C. egress traffic
D. ingress traffic

Answer: D

NEW QUESTION 407
- (Topic 1)
Several new coverage cells are required to improve the Wi-Fi network of an organization. Which two standard designs are recommended? (choose two.)

A. 5GHz provides increased network capacity with up to 23 nonoveriapping channels.
B. For maximum throughput, the WLC is configured to dynamically set adjacent access points to the same channel.
C. 5GHz channel selection requires an autonomous access point.
D. Adjacent cells with overlapping channels use a repeater access point.
E. Cells that overlap one another are configured to use nonoveriapping channels.

Answer: BE

NEW QUESTION 408
- (Topic 1)
How do TCP and UDP differ in the way that they establish a connection between two endpoints?

A. TCP uses synchronization packets, and UDP uses acknowledgment packets.
B. UDP uses SYN, SYN ACK and FIN bits in the frame header while TCP uses SYN, SYN ACK and ACK bits
C. UDP provides reliable message transfer and TCP is a connectionless protocol
D. TCP uses the three-way handshake and UDP does not guarantee message delivery

Answer: D

NEW QUESTION 410
- (Topic 1)
What is a DHCP client?

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

Answer: B

NEW QUESTION 414
- (Topic 1)
What is the primary purpose of a First Hop Redundancy Protocol?

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

Answer: D

NEW QUESTION 418
DRAG DROP - (Topic 1)
Drag and drop the network protocols from the left onto the correct transport services on the right.

A. Mastered
B. Not Mastered

Answer: A

Explanation:

NEW QUESTION 420
- (Topic 1)
How is the native VLAN secured in a network?

A. separate from other VLANs within the administrative domain
B. give it a value in the private VLAN range
C. assign it as VLAN 1
D. configure it as a different VLAN ID on each end of the link

Answer: A

NEW QUESTION 424
- (Topic 1)
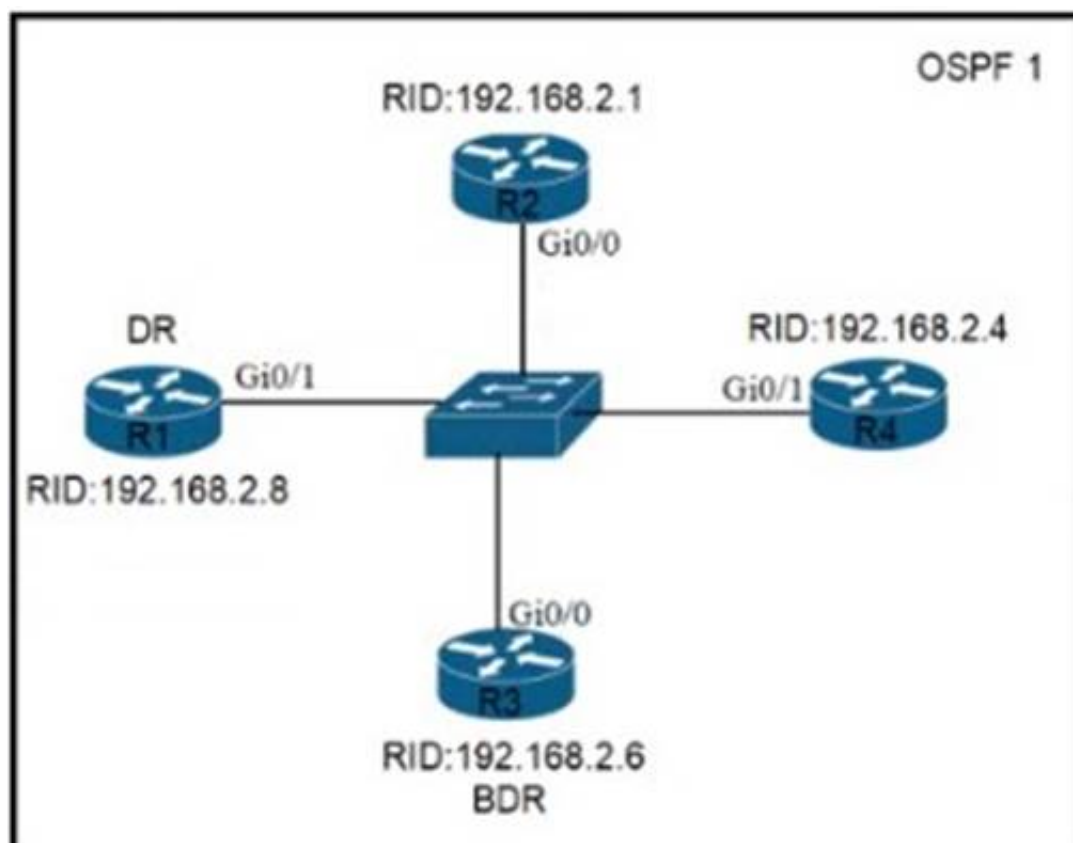
Refer to the exhibit. All routers in the network are configured R2 must be the DR. After the engineer connected the devices, R1 was elected as the DR. Which command sequence must be configure on R2 to Be elected as the DR in the network?

○ R2(config)#interface gi0/0
  R2(config-if)#ip ospf priority 1

○ R2(config)#interface gi0/0
  R2(config-if)#ip ospf priority 100

○ R2(config)#router ospf 1
  R2(config-router)#router-id 10.100.100.100

○ R2(config)#router ospf 1
  R2(config-router)#router-id 192.168.2.7

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

Answer: B

NEW QUESTION 428
- (Topic 1)
Which attribute does a router use to select the best path when two or more different routes to the same destination exist from two different routing protocols.

A. dual algorithm
B. metric
C. administrative distance
D. hop count

Answer: C

Explanation:
Administrative distance is the feature used by routers to select the best path when there are two or more different routes to the same destination from different routing protocols. Administrative distance defines the reliability of a routing protocol.

NEW QUESTION 429
- (Topic 1)
Which output displays a JSON data representation?

A.
```
{
    "response": {
    "taskId": {};
    "url": "string"
    };
    "version": "string"
}
```

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

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

D.
```
{
    "response". {
    "taskId". {};
    "url". "string"
    };
    "version". "string"
}
```

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

Answer: C

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

NEW QUESTION 432
- (Topic 1)
What criteria is used first during me root port selection process?

A. local port ID
B. lowest path cost to the root bridge
C. lowest neighbor's bridge ID
D. lowest neighbor's port ID

Answer: B

NEW QUESTION 437
- (Topic 1)
Which feature on the Cisco Wireless LAN Controller when enabled restricts management access from specific networks?

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

Answer: A

Explanation:
Reference: https://www.cisco.com/c/en/us/support/docs/wireless-mobility/wlan-security/71978-acl-wlc.html

NEW QUESTION 438
- (Topic 1)
Refer to the exhibit.

```
cisco_ospf_vrf ("R1 default":
    ensure => 'present',
    auto_cost => '100',
}
```

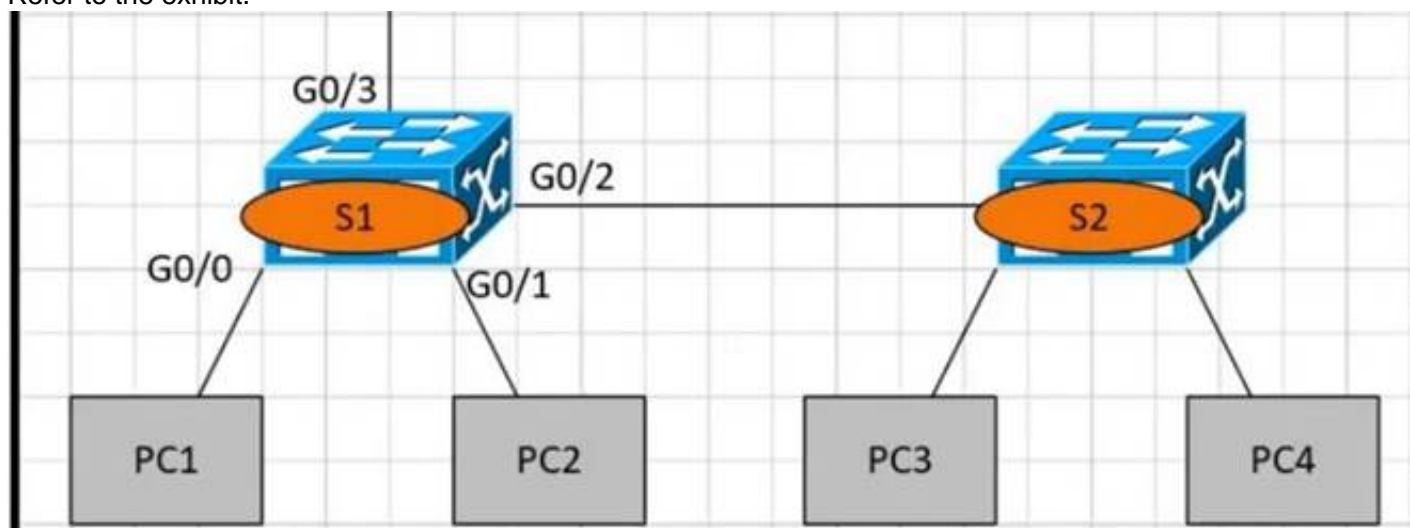Which type of configuration is represented in the output?

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

Answer: D

NEW QUESTION 440
- (Topic 1)
Refer to the exhibit.

PC1 is trying to ping PC3 for the first time and sends out an ARP to S1 Which action is taken by S1?

A. It forwards it out G0/3 only
B. It is flooded out every port except G0/0.
C. It drops the frame.
D. It forwards it out interface G0/2 only.

Answer: B

NEW QUESTION 442
- (Topic 1)
Which configuration ensures that the switch is always the root for VLAN 750?

A. Switch(config)#spanning-tree vlan 750 priority 38003685
B. Switch(config)#spanning-tree vlan 750 root primary
C. Switch(config)#spanning-tree vlan 750 priority 614440
D. Switch(config)#spanning-tree vlan 750 priority 0

Answer: D

Explanation:
Although the spanning-tree vlan 10 root primary command will ensure a switch will have a bridge priority value lower than other bridges introduced to the network, the spanning-tree vlan 10 priority 0 command ensures the bridge priority takes precedence over all other priorities.

NEW QUESTION 444
- (Topic 1)
What is a recommended approach to avoid co-channel congestion while installing access points that use the 2.4 GHz frequency?

A. different nonoverlapping channels
B. different overlapping channels
C. one overlapping channel
D. one nonoverlapping channel

Answer: A

NEW QUESTION 446
- (Topic 1)
In software-defined architecture, which place handles switching for traffic through a Cisco router?

A. Control
B. Management
C. Data
D. application

Answer: C

Explanation:
Data plane—Handles all the data traffic. The basic functionality of a Cisco NX-OS device is to forward packets from one interface to another. The packets that are not meant for the switch itself are called the transit packets. These packets are handled by the data plane

NEW QUESTION 449
- (Topic 1)
By default, how Does EIGRP determine the metric of a route for the routing table?

A. it uses the bandwidth and delay values of the path to calculate the route metric
B. it uses a default metric of 10 for all routes that are learned by the router
C. it uses a reference Bandwidth and the actual bandwidth of the connected link to calculate the route metric
D. it counts the number of hops between the receiving and destination routers and uses that value as the metric

Answer: A

NEW QUESTION 453
- (Topic 1)
What does physical access control regulate?
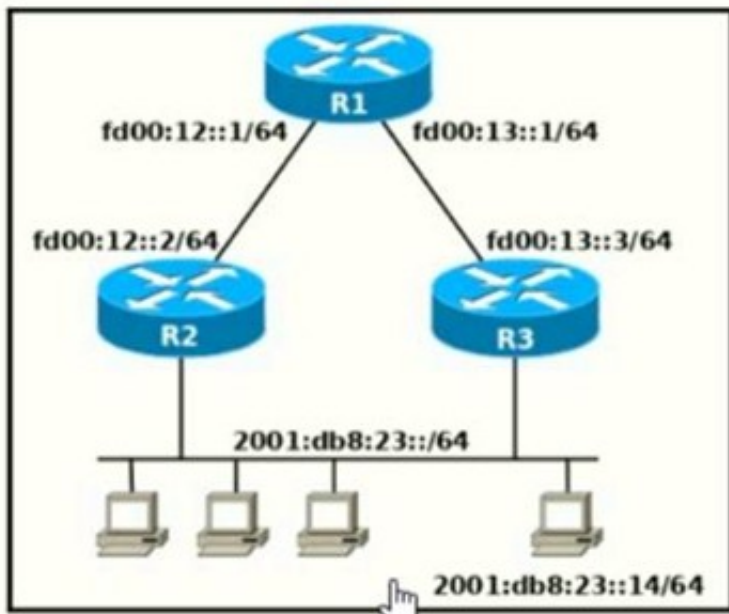
A. access to spec fie networks based on business function
B. access to servers to prevent malicious activity
C. access :o computer networks and file systems
D. access to networking equipment and facilities

Answer: D

NEW QUESTION 457
- (Topic 1)
Refer to the exhibit.

Which two commands, when configured on router R1, fulfill these requirements? (Choose two.)
Packets towards the entire network 2001:db8:2::/64 must be forwarded through router R2. Packets toward host 2001:db8:23::14 preferably must be forwarded through R3.

A. Ipv6 route 2001:db8:23::/128 fd00:12::2
B. Ipv6 route 2001:db8:23::14/128 fd00:13::3
C. Ipv6 route 2001:db8:23::14/64 fd00:12::2
D. Ipv6 route 2001:db8:23::/64 fd00:12::2
E. Ipv6 route 2001:db8:23::14/64 fd00:12::2 200

Answer: DE

NEW QUESTION 461
- (Topic 1)
A port security violation has occurred on a switch port due to the maximum MAC address count being exceeded. Which command must be configured to increment the security- violation count and forward an SNMP trap?

A. switchport port-security violation access
B. switchport port-security violation protect
C. switchport port-security violation restrict
D. switchport port-security violation shutdown

Answer: C

Explanation:
https://www.cisco.com/c/en/us/td/docs/switches/lan/catalyst4500/12-2/25ew/configuration/guide/conf/port_sec.html

NEW QUESTION 464
- (Topic 1)
Which WLC port connects to a switch to pass normal access-point traffic?

A. redundancy
B. console
C. distribution system
D. service

Answer: C

NEW QUESTION 467
DRAG DROP - (Topic 1)
Drag and drop the 802.11 wireless standards from the left onto the matching statements on the right

802.11a	Operates in the 2.4 GHz and 5 GHz bands.
802.11ac	Operates in the 2.4 GHz band only and supports a maximum data rate of 54 Mbps.
802.11b	Operates in the 5 GHz band only and supports a maximum data rate that can exceed 100 Mbps.
802.11g	Supports a maximum data rate of 11 Mbps.
802.11n	Operates in the 5 GHz band only and supports a maximum data rate of 54 Mbps.

A. Mastered
B. Not Mastered

Answer: A

Explanation:

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

NEW QUESTION 470
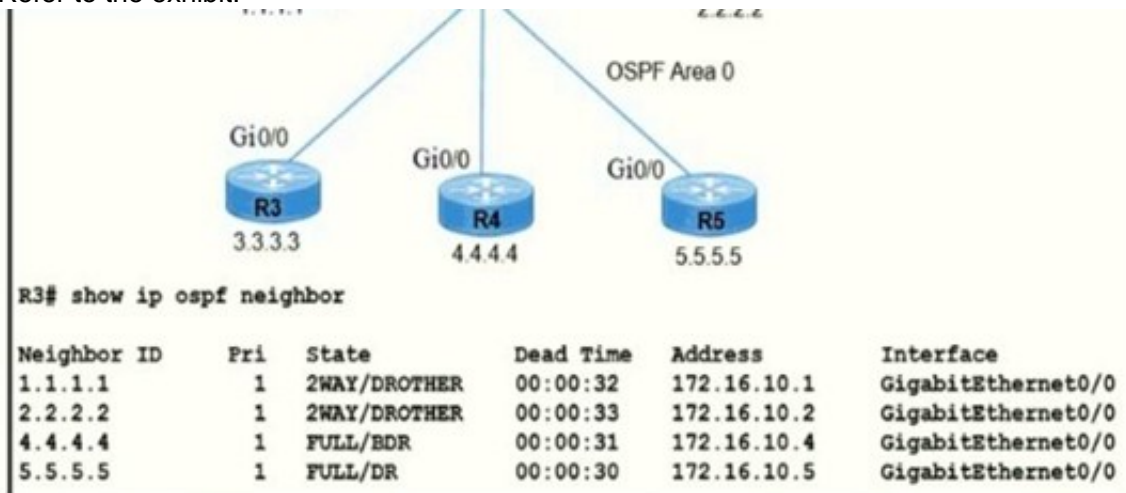- (Topic 1)
How does QoS optimize voice traffic?

A. reducing bandwidth usage
B. by reducing packet loss
C. by differentiating voice and video traffic
D. by increasing jitter

Answer: C

NEW QUESTION 472
- (Topic 1)
Refer to the exhibit.

R5 is the current DR on the network, and R4 is the BDR. Their interfaces are flapping, so a network engineer wants the OSPF network to elect a different DR and BDR. Which set of configurations must the engineer implement?

A)

```
R4(config)#interface gi0/0
R4(config-if)#ip ospf priority 20

R5(config)#interface gi0/0
R5(config-if)#ip ospf priority 10
```

B)

```
R2(config)#interface gi0/0
R2(config-if)#ip ospf priority 259

R3(config)#interface gi0/0
R3(config-if)#ip ospf priority 256
```

C)

```
R5(config)#interface gi0/0
R5(config-if)#ip ospf priority 120

R4(config)#interface gi0/0
R4(config-if)#ip ospf priority 110
```

D)

```
R3(config)#interface gi0/0
R3(config-if)#ip ospf priority 255

R2(config)#interface gi0/0
R2(config-if)#ip ospf priority 240
```

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

Answer: D

NEW QUESTION 475
- (Topic 1)
What is the difference in data transmission delivery and reliability between TCP and UDP?

A. TCP transmits data at a higher rate and ensures packet deliver
B. UDP retransmits lost data to ensure applications receive the data on the remote end.
C. UDP sets up a connection between both devices before transmitting dat
D. TCP uses the three-way handshake to transmit data with a reliable connection.
E. UDP is used for multicast and broadcast communicatio
F. TCP is used for unicast communication and transmits data at a higher rate with error checking.
G. TCP requires the connection to be established before transmitting dat
H. UDP transmits data at a higher rate without ensuring packet delivery.

Answer: D

NEW QUESTION 477
- (Topic 1)
Aside from discarding, which two states does the switch port transition through while using RSTP (802.1w)? (Choose two)

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

E. speaking

Answer: CD

NEW QUESTION 482
- (Topic 1)
A manager asks a network engineer to advise which cloud service models are used so employees do not have to waste their time installing, managing, and updating software which is only used occasionally Which cloud service model does the engineer recommend?

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

Answer: D

NEW QUESTION 487
- (Topic 1)
Refer to the exhibit.

```
R2#show ip nat translations
Pro Inside global       Inside local    Outside local    Outside global
tcp 172.23.104.3:43268 10.4.4.4:43268 172.23.103.10:23 172.23.103.10:23
tcp 172.23.104.4:45507 10.4.4.5:45507 172.23.103.10:80 172.23.103.10:80
```

An engineer configured NAT translations and has verified that the configuration is correct. Which IP address is the source IP?

A. 10.4.4.4
B. 10.4.4.5
C. 172.23.103.10
D. 172.23.104.4

Answer: D

Explanation:
NAT is used to send a packet to the outside network, using a public IP address to make it routable. The NAT logic is "inside-to-outside" FIRST and "outside-to-inside" THEN. This way, configuring NAT means "choosing a public IP address" for any outbound packet" IN THE FIRST PLACE, where "public IP address" translates to "inside global address". Among the given answers, the only inside global address is 172.123.104.4.

NEW QUESTION 492
- (Topic 1)
What is a function of a remote access VPN?

A. used cryptographic tunneling to protect the privacy of data for multiple users simultaneously
B. used exclusively when a user is connected to a company's internal network
C. establishes a secure tunnel between two branch sites
D. allows the users to access company internal network resources through a secure tunnel

Answer: D

NEW QUESTION 493
- (Topic 1)
Which type of address is the public IP address of a NAT device?

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

Answer: C

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

NEW QUESTION 497
- (Topic 1)
What is the purpose of using First Hop Redundancy Protocol in a specific subnet?

A. Filter traffic based on destination IP addressing
B. Sends the default route to the hosts on a network

C. ensures a loop-free physical topology
D. forwards multicast hello messages between routers

Answer: D

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

NEW QUESTION 499
- (Topic 1)
What is a similarity between OM3 and OM4 fiber optic cable?

A. Both have a 50 micron core diameter
B. Both have a 9 micron core diameter
C. Both have a 62.5 micron core diameter
D. Both have a 100 micron core diameter

Answer: A

NEW QUESTION 501
- (Topic 1)
Router R1 must send all traffic without a matching routing-table entry to 192.168.1.1. Which configuration accomplishes this task?

```
○ R1#Config t
  R1(config)#ip routing
  R1(config)#ip route default-route 192.168.1.1

○ R1#Config t
  R1(config)#ip routing
  R1(config)#ip route 192.168.1.1 0.0.0.0 0.0.0.0

○ R1#Config t
  R1(config)#ip routing
  R1(config)#ip route 0.0.0.0 0.0.0.0 192.168.1.1

○ R1#Config t
  R1(config)#ip routing
  R1(config)#ip default-gateway 192.168.1.1
```

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

Answer: C

NEW QUESTION 506
- (Topic 1)
A frame that enters a switch fails the Frame Check Sequence. Which two interface counters are incremented? (Choose two)

A. runts
B. giants
C. frame
D. CRC
E. input errors

Answer: DE

Explanation:
Whenever the physical transmission has problems, the receiving device might receive a frame whose bits have changed values. These frames do not pass the error detection logic as implemented in the FCS field in the Ethernet trailer. The receiving device discards the frame and counts it as some kind of input error. Cisco switches list this error as a CRC error. Cyclic redundancy check (CRC) is a term related to how the FCS math detects an error.
The "input errors" includes runts, giants, no buffer, CRC, frame, overrun, and ignored counts.
The output below show the interface counters with the "show interface s0/0/0" command:

```
Router#show interface s0/0/0
Serial0/0/0 is up, line protocol is up
  Hardware is M4T
  Description: Link to R2
  Internet address is 10.1.1.1/30
  MTU 1500 bytes, BW 1544 Kbit, DLY 20000 usec,
      reliability 255/255, txload 1/255, rxload 1/255
  --output omitted--
  5 minute output rate 0 bits/sec, 0 packets/sec
      268 packets input, 24889 bytes, 0 no buffer
      Received 0 broadcasts, 0 runts, 0 giants, 0 throttles
      0 input errors, 0 CRC, 0 frame, 0 overrun, 0 ignored, 0 abort
      251 packets output, 23498 bytes, 0 underruns
      0 output errors, 0 collisions, 0 interface resets
      0 output buffer failures, 0 output buffers swapped out
      0 carrier transitions      DCD=up  DSR=up  DTR=up  RTS=up  CTS=up
```

NEW QUESTION 509
- (Topic 1)
Which type of security program is violated when a group of employees enters a building using the ID badge of only one person?

A. intrusion detection
B. user awareness
C. physical access control
D. network authorization

Answer: C

NEW QUESTION 512
- (Topic 1)
What causes a port to be placed in the err-disabled state?

A. latency
B. port security violation
C. shutdown command issued on the port
D. nothing plugged into the port

Answer: B

Explanation:
 This mode is the default violation mode; when in this mode, the switch will automatically force the switchport into an error disabled (err-disable) state when a violation occurs. While in this state, the switchport forwards no traffic. The switchport can be brought out of this error disabled state by issuing the errdisable recovery cause CLI command or by disabling and reenabling the switchport.

NEW QUESTION 515
- (Topic 1)
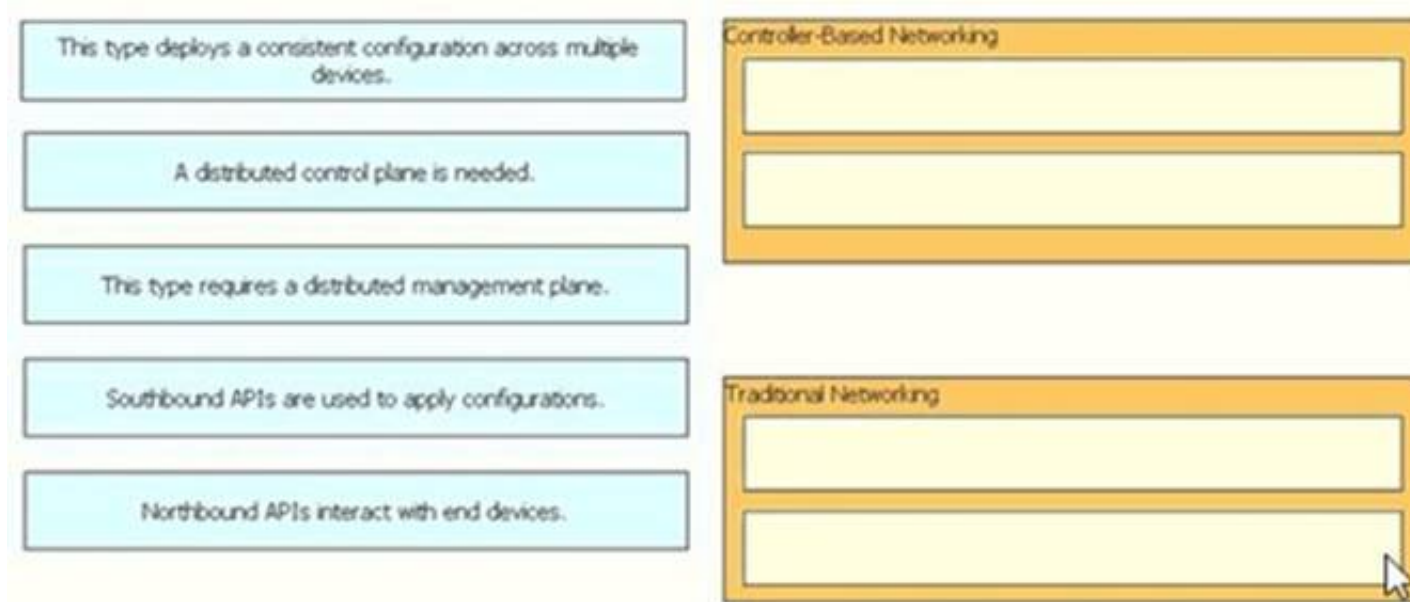What protocol allows an engineer to back up 20 network router configurations globally while using the copy function?

A. SMTP
B. SNMP
C. TCP
D. FTP
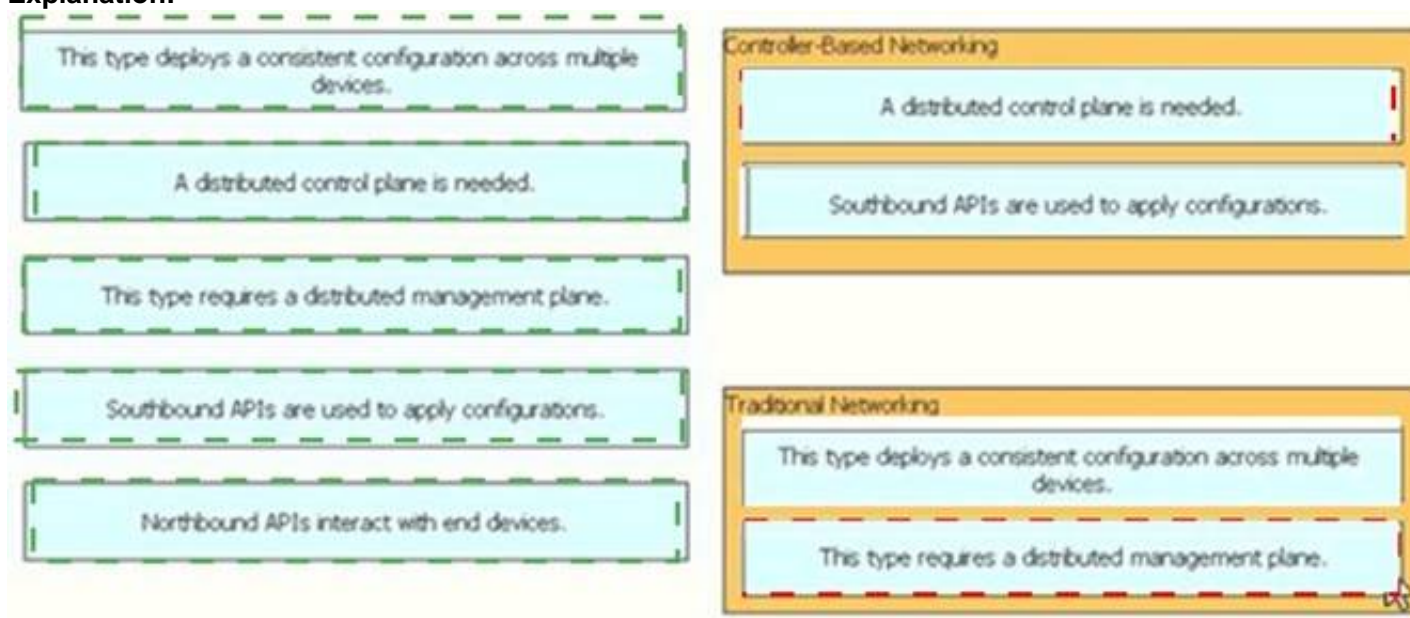
Answer: B

NEW QUESTION 517
DRAG DROP - (Topic 1)
Drag and drop the statement about networking from the left into the Corresponding networking types on the right. Not all statements are used.

This type deploys a consistent configuration across multiple devices.	Controller-Based Networking
A distributed control plane is needed.	
This type requires a distributed management plane.	
Southbound APIs are used to apply configurations.	Traditional Networking
Northbound APIs interact with end devices.	

A. Mastered
B. Not Mastered

Answer: A

Explanation:

This type deploys a consistent configuration across multiple devices.	Controller-Based Networking
A distributed control plane is needed.	A distributed control plane is needed.
This type requires a distributed management plane.	Southbound APIs are used to apply configurations.
Southbound APIs are used to apply configurations.	Traditional Networking
Northbound APIs interact with end devices.	This type deploys a consistent configuration across multiple devices.
	This type requires a distributed management plane.

NEW QUESTION 519
- (Topic 1)
What are two fundamentals of virtualization? (choose two)

A. The environment must be configured with one hypervisor that serves solely as a network manager to monitor SNMP traffic
B. It allows logical network devices to move traffic between virtual machines and the rest of the physical network
C. It allows multiple operating systems and applications to run independently on one physical server.
D. It allows a physical router to directly connect NICs from each virtual machine into the network
E. It requires that some servers, virtual machines and network gear reside on the Internet

Answer: BC

NEW QUESTION 520
- (Topic 1)
An engineer must configure Interswitch VLAN communication between a Cisco switch and a third-party switch. Which action should be taken?

A. configure IEEE 802.1p
B. configure IEEE 802.1q
C. configure ISL
D. configure DSCP

Answer: B

NEW QUESTION 523
- (Topic 1)
An organization has decided to start using cloud-provided services. Which cloud service allows the organization to install its own operating system on a virtual machine?

A. platform-as-a-service
B. software-as-a-service
C. network-as-a-service
D. infrastructure-as-a-service

Answer: B

Explanation:
Below are the 3 cloud supporting services cloud providers provide to customer:
+ SaaS (Software as a Service): SaaS uses the web to deliver applications that are managed by a thirdparty vendor and whose interface is accessed on the clients' side. Most SaaS applications can be run directly from a web browser without any downloads or installations required, although some require plugins.
+ PaaS (Platform as a Service): are used for applications, and other development, while providing cloud components to software. What developers gain with PaaS is a framework they can build upon to develop or customize applications. PaaS makes the development, testing, and deployment of applications quick, simple, and cost-effective. With this technology, enterprise operations, or a thirdparty provider, can manage OSes, virtualization, servers, storage, networking, and the PaaS software itself. Developers, however, manage the applications.
+ IaaS (Infrastructure as a Service): self-service models for accessing, monitoring, and managing remote datacenter infrastructures, such as compute (virtualized or bare metal), storage, networking, and networking services (e.g. firewalls). Instead of having to purchase hardware outright, users can purchase IaaS based on consumption, similar to electricity or other utility billing.
In general, IaaS provides hardware so that an organization can install their own operating system.

NEW QUESTION 526
- (Topic 1)
Which QoS Profile is selected in the GUI when configuring a voice over WLAN deployment?

A. Bronze
B. Platinum
C. Silver
D. Gold

Answer: B

Explanation:
Reference: https://www.cisco.com/c/en/us/support/docs/wireless-mobility/wireless-lan-wlan/81831-qos-wlc-lap.html
Cisco Unified Wireless Network solution WLANs support four levels of QoS: Platinum/Voice, Gold/Video, Silver/Best Effort (default), and Bronze/Background.

NEW QUESTION 531
- (Topic 1)
When a switch receives a frame for a known destination MAC address, how is the frame handed?

A. sent to the port identified for the known MAC address
B. broadcast to all ports
C. forwarded to the first available port
D. flooded to all ports except the one from which it originated

Answer: A

NEW QUESTION 533
- (Topic 1)
What is a benefit of VRRP?

A. It provides traffic load balancing to destinations that are more than two hops from the source.
B. It provides the default gateway redundancy on a LAN using two or more routers.
C. It allows neighbors to share routing table information between each other.
D. It prevents loops in a Layer 2 LAN by forwarding all traffic to a root bridge, which then makes the final forwarding decision.

Answer: B
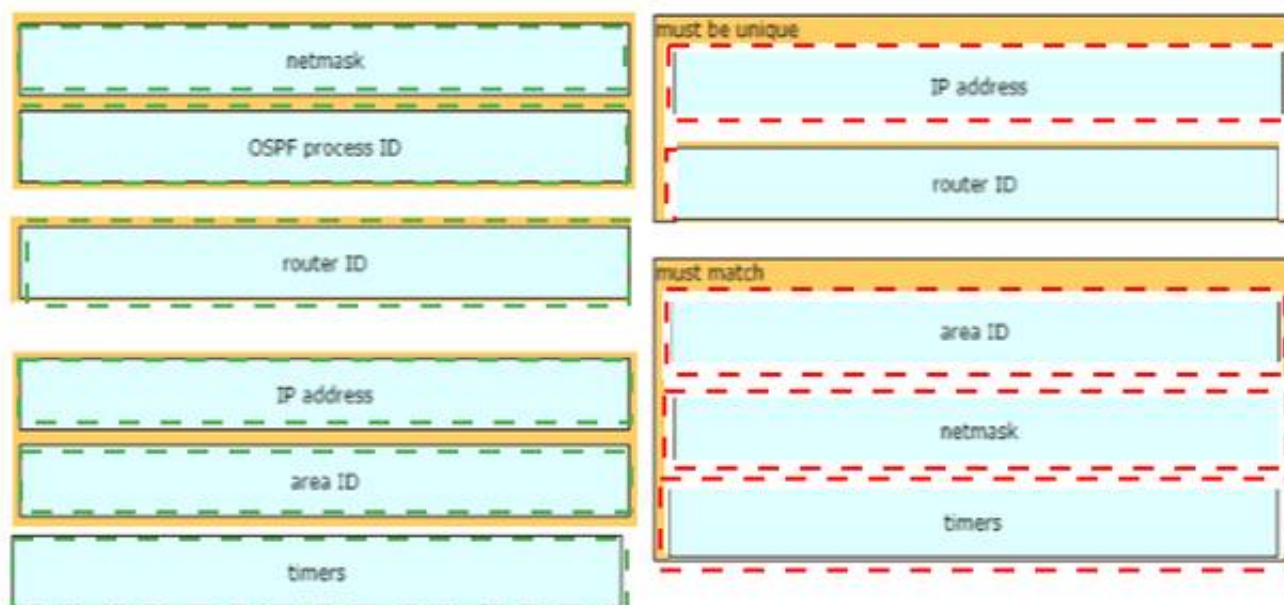

NEW QUESTION 537
DRAG DROP - (Topic 1)
A network engineer is configuring an OSPFv2 neighbor adjacency Drag and drop the parameters from the left onto their required categories on the right. Not all parameters are used

A. Mastered
B. Not Mastered

Answer: A

Explanation:

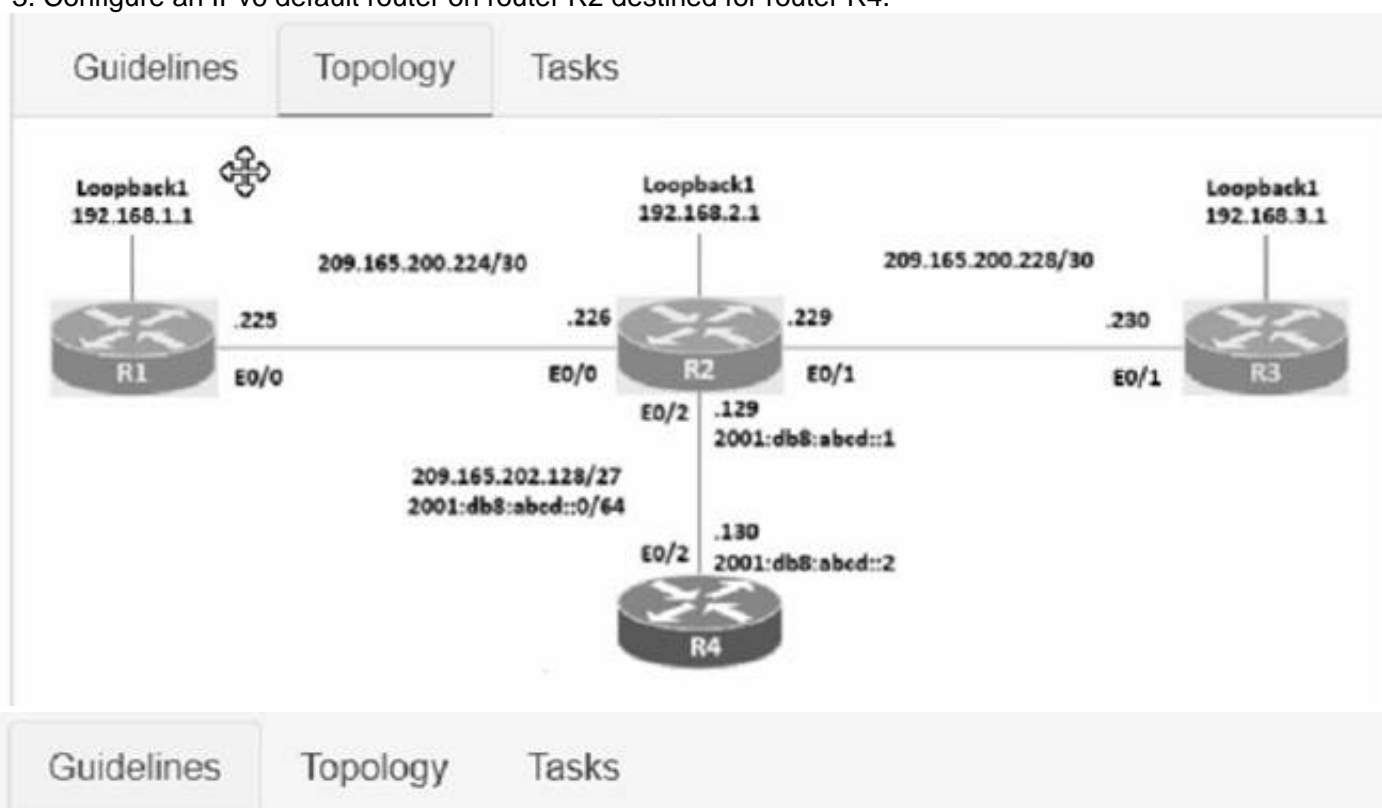| netmask		must be unique	
OSPF process ID		IP address	
		router ID	
router ID		must match	
		area ID	
IP address		netmask	
area ID		timers	
timers			

NEW QUESTION 539
SIMULATION - (Topic 5)
Connectivity between four routers has been established. IP connectivity must be configured in the order presented to complete the implementation. No dynamic routing protocols are included.
* 1. Configure static routing using host routes to establish connectivity from router R3 to the router R1 Loopback address using the source IP of 209.165.200.230.
* 2. Configure an IPv4 default route on router R2 destined for router R4.
* 3. Configure an IPv6 default router on router R2 destined for router R4.

Guidelines   Topology   Tasks

Loopback1
192.168.1.1   Loopback1
                           192.168.2.1   Loopback1
                                                            192.168.3.1
         209.165.200.224/30   209.165.200.228/30

.225   .226   .229   .230
R1   E0/0   E0/0   R2   E0/1   E0/1   R3

                              E0/2 .129
                                    2001:db8:abcd::1

        209.165.202.128/27
        2001:db8:abcd::0/64
                              E0/2 .130
                                    2001:db8:abcd::2

                              R4

Guidelines   Topology   Tasks

Guidelines

This is a lab item in which tasks will be performed on virtual devices.

- Refer to the **Tasks** tab to view the tasks for this lab item.
- Refer to the **Topology** tab to access the device console(s) and perform the tasks.
- Console access is available for all required devices by clicking the device icon or using the tab(s) above the console window.
- All necessary preconfigurations have been applied.
- Do not change the enable password or hostname for any device.
- **Save your configurations** to NVRAM before moving to the next item.
- Click **Next** at the bottom of the screen to submit this lab and move to the next question.
- When **Next** is clicked, the lab closes and cannot be reopened.

A. Mastered
B. Not Mastered

Answer: A

Explanation:
Answer as below configuration:
* 1.- on R3
config terminal
ip route 192.168.1.1 255.255.255.255 209.165.200.229
end
copy running start
* 2.- on R2
config terminal
ip route 0.0.0.0 0.0.0.0 209.165.202.130
end
copy running start
* 3.- on R2
config terminal
ipv6 route ::/0 2001:db8:abcd::2 end
copy running start

NEW QUESTION 541
DRAG DROP - (Topic 4)
Drag and drop the IPv6 addresses from the left onto the corresponding address types on the right.

A. Mastered
B. Not Mastered

Answer: A

Explanation:

NEW QUESTION 546
- (Topic 4)
A packet from a company s branch office is destined to host 172.31.0.1 at headquarters. The sending router has three possible matches in its routing table for the

packet prefixes: 172. 31.0 .0/16.72.31.0.0724. and 172.31 0 0/25.
How does the router handle the packet?

A. It sends the traffic via prefix 172.31.0.0/16
B. It sends the traffic via the default gateway 0.0.0.070.
C. It sends the traffic via prefix 172.31.0.0/24
D. It sends the traffic via prefix 172.31.0.0/25

Answer: D

NEW QUESTION 550
- (Topic 4)
Which interface or port on the WLC is the default for in-band device administration and communications between the controller and access points?

A. virtual interface
B. management interface
C. console port
D. service port

Answer: B

NEW QUESTION 552
- (Topic 4)
Which is a fact related to FTP?

A. It uses block numbers to identify and mitigate data-transfer errors
B. It always operates without user authentication
C. It relies on the well-known UDP port 69.
D. It uses two separate connections for control and data traffic

Answer: D

NEW QUESTION 555
- (Topic 4)
What are two differences between WPA2 and WPA3 wireless security? (Choose two.)

A. WPA3 um AES for stronger protection than WPA2 which uses SAE
B. WPA2 uses 1 M-bit key encryption and WPA3 requires 256-brt key encryption
C. WPA3 uses AES for stronger protection than WPA2 which uses TKIP WPA3 uses
D. SAE tor stronger protection than WPA2 which uses AES
E. WPA2 uses 12B-M key encryption and WPA3 supports 128 bit and 192 bit key encryption

Answer: CE

NEW QUESTION 556
- (Topic 4)
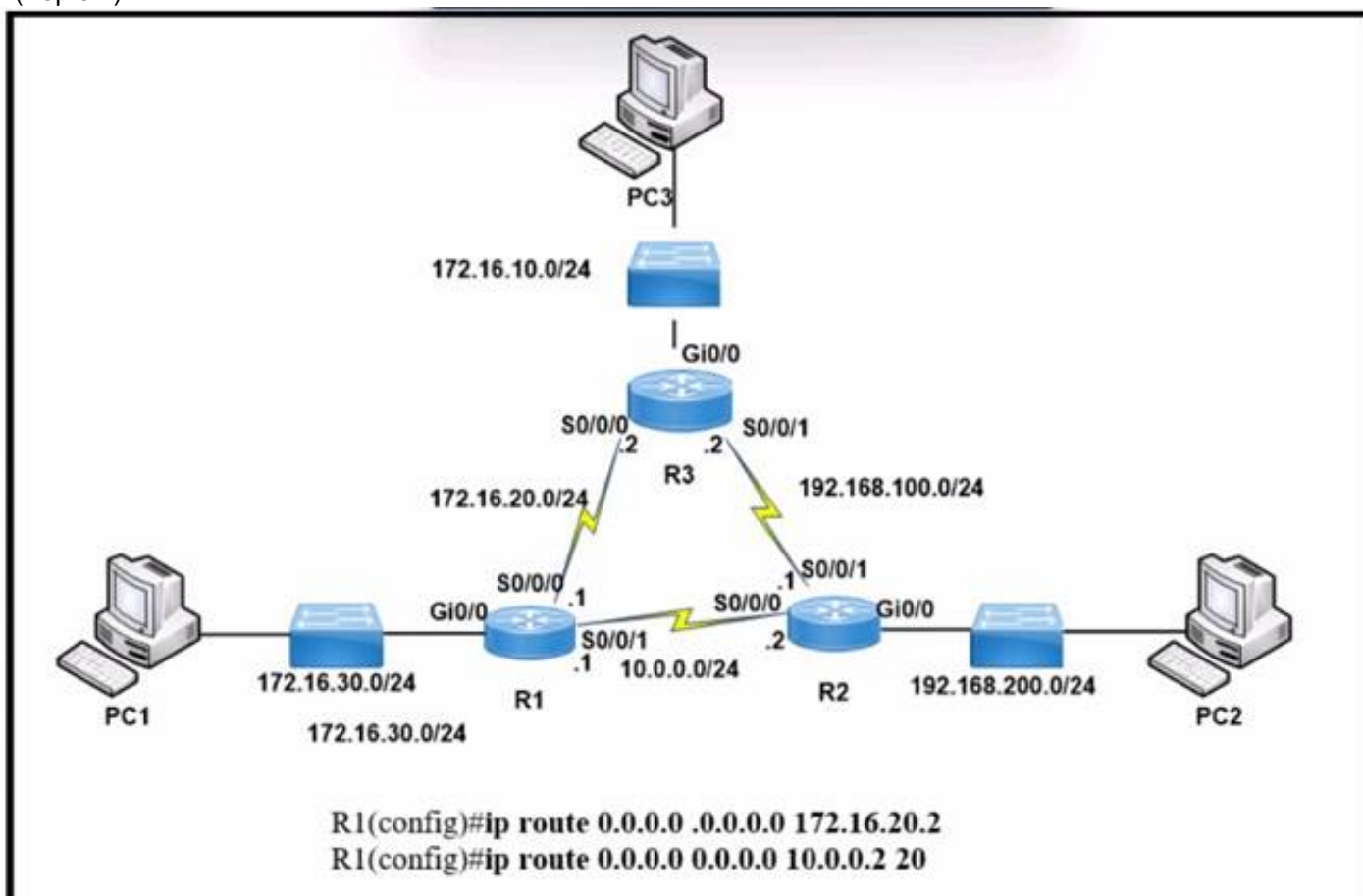
Refer to the exhibit. After applying this configuration to router R1, a network engineer is verifying the implementation. If all links are operating normally, and the engineer sends a series of packets from PC1 to PC3. how are the packets routed?

A. They are routed to 172.16.20.2.
B. They are routed to 192.168.100.2.
C. They are distributed sent round robin to interfaces SO/0/0 and SO/0/1.

D. They are routed to 10.0.0.2.

Answer: A

NEW QUESTION 557
- (Topic 4)
How do TCP and UDP fit into a query-response model?

A. TCP establishes a connection prior to sending data, and UDP sends immediately.
B. TCP uses error detection for packets, and UDP uses error recovery.
C. TCP avoids using sequencing, and UDP avoids using acknowledgments.
D. TCP encourages out-of-order packet delivery, and UDP prevents re-ordering.

Answer: A

NEW QUESTION 562
- (Topic 4)
What is a function of the core and distribution layers in a collapsed-core architecture?

A. The router must use IPv4 and IPv6 addresses at Layer 3.
B. The core and distribution layers are deployed on two different devices to enable failover.
C. The router can support HSRP for Layer 2 redundancy in an IPv6 network.
D. The router operates on a single device or a redundant pair.

Answer: D

Explanation:
 The core and distribution layers are collapsed into one layer in a collapsed- core architecture, and this layer operates on a single device or a redundant pair. This layer is responsible for the routing between the access layer and the WAN, as well as providing redundancy.

NEW QUESTION 565
- (Topic 4)
Refer to the exhibit.
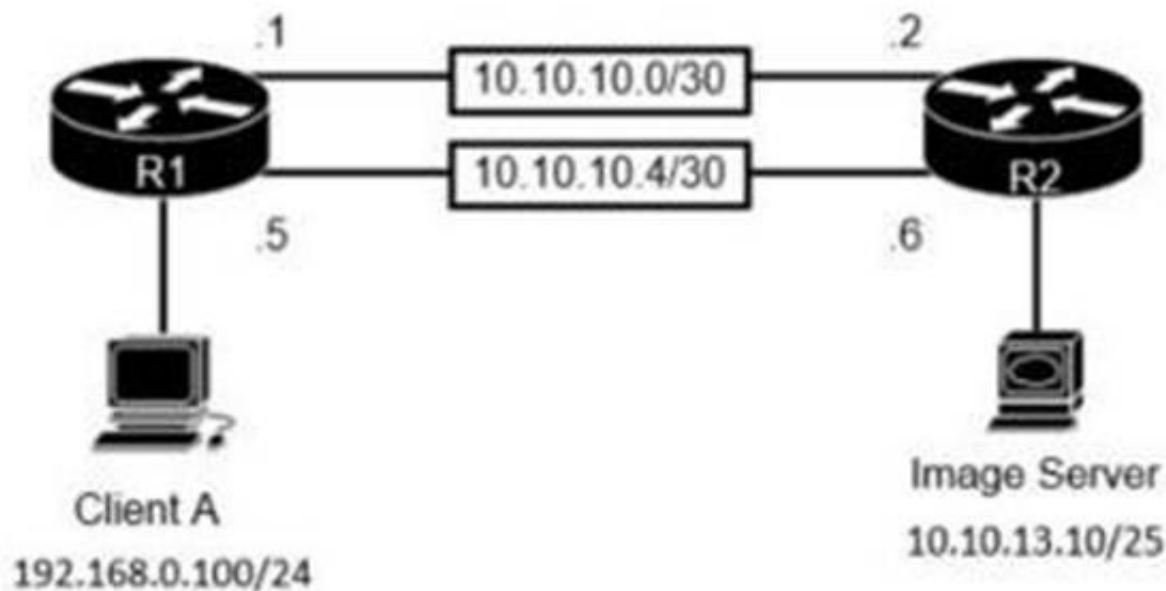

```
R1#show ip route
Gateway of last resort is 10.10.10.2 to network 0.0.0.0
S*    0.0.0.0/0 [1/0] via 10.10.10.2

R2#show ip route
Gateway of last resort is 10.10.10.1 to network 0.0.0.0
S*    0.0.0.0/0 [1/0] via 10.10.10.1
```

The image server and client A are running an application that transfers an extremely high volume of data between the two. An engineer is configuring a dedicated circuit between R1 and R2. Which set of commands must the engineer apply to the routers so that only traffic between the image server and client A is forces to use the new circuit?

A. R1(config)#ip route 10.10.13.10 255.255.255.255 10.10.10.6R2(config)#ip route 192.168.0.100 255.255.255.255 10.10.10.5
B. R1(config)#ip route 10.10.13.10 255.255.255.128 10.10.10.6R2(config)#lp route 192.168.0.100 255.255.255.0 10.10.10.5
C. R1(config)#ip route 10.10.13.10 255.255.255.252 10.10.10.6R2(config)#tp route 192.168.0.100 255.255.255.252 10.10.10.5
D. R1(config)#ip route 10.10.13.10 255.255.255.255 10.10.10.2R2(config)#ip route 192.168.0.100 255.255.255.255 10.10.10.1

Answer: D

NEW QUESTION 567
- (Topic 4)
What is a reason to implement IPv4 private addressing?

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

Answer: D

NEW QUESTION 571
- (Topic 4)
Which REST method updates an object in the Cisco DNA Center Intent API?

A. CHANGE
B. UPDATE
C. POST
D. PUT

Answer: D

Explanation:
 PUT is most-often utilized for **update** capabilities, PUT-ing to a known
resource URI with the request body containing the newly-updated representation of the original resource.However, PUT can also be used to create a resource in the case where the resource ID is chosen by the client instead of by the server. In other words, if the PUT is to a URI that contains the value of a non-existent resource ID. Again, the request body contains a resource representation. Many feel this is convoluted and confusing. Consequently, this method of creation should be used sparingly, if at all.Alternatively, use POST to create new resources and provide the client-defined ID in the body representation—presumably to a URI that doesn't include the ID of the resource (see POST below).On successful update, return 200 (or 204 if not returning any content in the body) from a PUT. If using PUT for create, return HTTP status 201 on successful creation. A body in the response is optional—providing one consumes more bandwidth. It is not necessary to return a link via a Location header in the creation case since the client already set the resource ID.PUT is not a safe operation, in that it modifies (or creates) state on the server, but it is idempotent. In other words, if you create or update a resource using PUT and then make that same call again, the resource is still there and still has the same state as it did with the first call.If, for instance, calling PUT on a resource increments a counter within the resource, the call is no longer idempotent. Sometimes that happens and it may be enough to document that the call is not idempotent. However, it's recommended to keep PUT requests idempotent. It is strongly recommended to use POST for non-idempotent requests.Examples:
https://www.restapitutorial.com/lessons/httpmethods.html

NEW QUESTION 573
- (Topic 4)
After a recent security breach and a RADIUS failure, an engineer must secure the console port of each enterprise router with a local username and password. Which configuration must the engineer apply to accomplish this task?

```
aaa new-model
line con 0
password plaintextpassword
privilege level 15
```

```
username localuser secret plaintextpassword
line con 0
login authentication default
privilege level 15
```

```
username localuser secret plaintextpassword
line con 0
no login local
privilege level 15
```

```
aaa new-model
aaa authorization exec default local
aaa authentication login default radius
username localuser privilege 15 secret plaintextpassword
```

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

Answer: B

NEW QUESTION 574
- (Topic 4)
Refer to the exhibit.

```
access-list 10 permit 10.0.0.0  0.0.0.255

interface Serial0

ip access-list 10 in
```

A network administrator must permit traffic from the 10.10.0.0/24 subnet to the WAN on interlace Seria10. What is the effect of the configuration as the administrator applies the command?

A. The permit command fails and returns an error code.
B. The router accepts all incoming traffic to Seria10 with the last octet of the source IP set to 0.
C. The sourced traffic from IP range 10.0.0.0 -10.0.0.255 is allowed on Seria10.
D. The router fails to apply the access list to the interface.

Answer: C

NEW QUESTION 578
- (Topic 4)
Which cipher is supported for wireless encryption only with the WPA2 standard?

A. AES256
B. AES
C. RC4
D. SHA

Answer: B

NEW QUESTION 580
- (Topic 4)
What is the definition of backdoor malware?

A. malicious code that is installed onto a computer to allow access by an unauthorized user
B. malicious code with the main purpose of downloading other malicious code
C. malicious program that is used to launch other malicious programs
D. malicious code that infects a user machine and then uses that machine to send spam

Answer: A

NEW QUESTION 583
- (Topic 4)
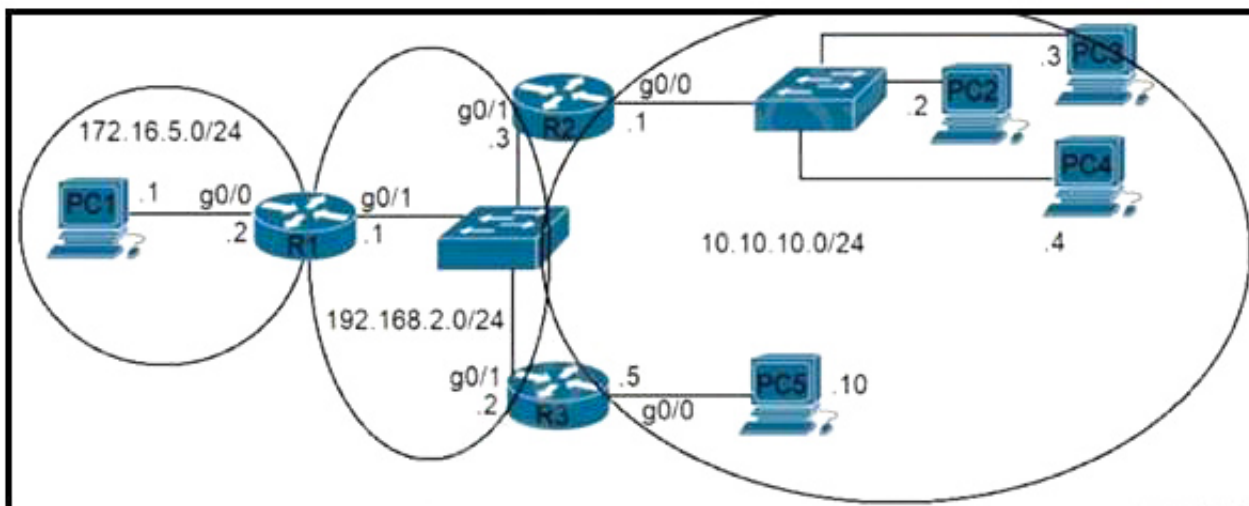
Refer to the exhibit. The router R1 is in the process of being configured. Routers R2 and R3 are configured correctly for the new environment. Which two commands must be configured on R1 for PC1 to communicate to all PCs on the 10.10.10.0/24 network? (Choose two.)

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

Answer: AE

NEW QUESTION 588
- (Topic 4)
Which 802.11 frame type is Association Response?

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

Answer: A

NEW QUESTION 593
- (Topic 4)
An engineer has configured the domain name, user name, and password on the local router. What is the next step to complete the configuration tor a Secure Shell access RSA key?

A. crypto key Import rsa pem
B. crypto key pubkey-chain rsa
C. crypto key generate rsa
D. crypto key zeroize rsa

Answer: C

NEW QUESTION 596
- (Topic 4)
A router has two static routes to the same destination network under the same OSPF process. How does the router forward packets to the destination if the next-hop devices are different?

A. The router chooses the route with the oldest age.
B. The router load-balances traffic over all routes to the destination.
C. The router chooses the next hop with the lowest MAC address.
D. The router chooses the next hop with the lowest IP address.

Answer: B

NEW QUESTION 601
- (Topic 4)
By default, how long will the switch continue to know a workstation MAC address after the workstation stops sending traffic?
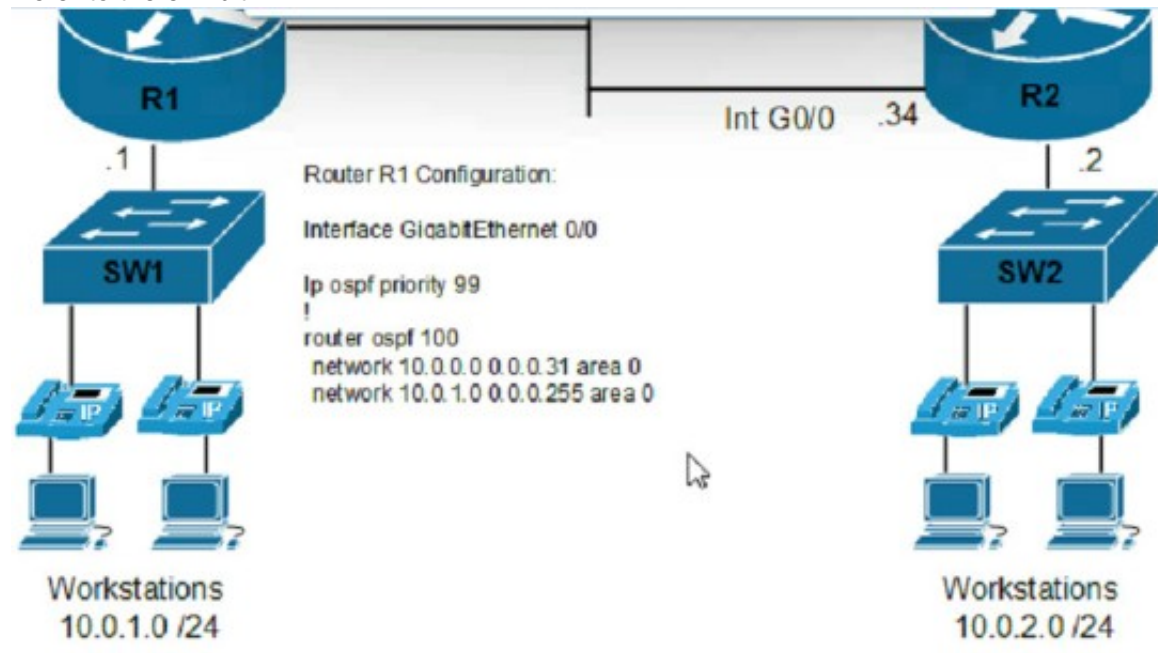
A. 200 seconds
B. 300 seconds
C. 600 seconds
D. 900 seconds

Answer: B

NEW QUESTION 605
- (Topic 4)
Refer to the exhibit.

An engineer must configure router R2 so it is elected as the DR on the WAN subnet. Which command sequence must be configured?
A)

```
interface gigabitethernet0/0
    ip address 10.0.0.34 255.255.255.224
    ip ospf priority 100
```

B)

```
interface gigabitethernet0/0
    ip address 10.0.1.1 255.255.255.224
    ip ospf priority 98
```

C)

```
interface gigabitethernet0/0
    ip address 10.0.0.34 255.255.255.248
    ip ospf priority 0
```

D)

```
interface gigabitethernet0/0
    ip address 10.0.1.1 255.255.255.0
    ip ospf priority 255
```

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

Answer: A

NEW QUESTION 608
DRAG DROP - (Topic 4)
Drag and drop the DNS commands from the left onto their effects on the right.

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

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

A. Mastered
B. Not Mastered

Answer: A

Explanation:

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

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

NEW QUESTION 611
- (Topic 4)

Refer to the exhibit.

```
MacOs$ ifconfig

en0: flags=8863<UP,BROADCAST,SMART,RUNNING,SIMPLEX,MULTICAST> mtu 1500
     options=400<CHANNEL_IO>
     ether f0:18:98:64:60:32
     inet6 fe80::492:c09f:57cf:8c36%en0 prefixlen 64 secured scopeid 0x6
     inet 10.8.138.14 netmask 0xffffe000 broadcast 10.8.159.255
     nd6 options=201<PERFORMNUD,DAD>
     media: autoselect
     status: active
```

A network engineer must provide configured IP addressing details to investigate a firewall rule Issue. Which subnet and mask Identify what is configured on the en0 interface?

A. 10.8.0.0/16
B. 10.8.64.0/18
C. 10.8.128.0/19
D. 10.8.138.0/24

Answer: D

NEW QUESTION 615
- (Topic 4)
What is a benefit for external users who consume public cloud resources?

A. implemented over a dedicated WAN
B. located in the same data center as the users
C. all hosted on physical servers
D. accessed over the Internet

Answer: D

NEW QUESTION 618
- (Topic 4)
What is used to identify spurious DHCP servers?

A. DHCPREQUEST
B. DHCPDISCOVER
C. DHCPACK
D. DHCPOFFER

Answer: D

Explanation:
DHCPOFFER is used to identify spurious DHCP servers. A spurious DHCP server is any device that is configured to act as a DHCP server without the network administrator's knowledge or permission. A spurious DHCP server can cause network problems by assigning incorrect or duplicate IP addresses to clients, or by redirecting traffic to malicious gateways. To prevent such attacks, the DHCP snooping feature can be enabled on switches to filter out invalid or unauthorized DHCP messages from untrusted sources1.
DHCP snooping works by intercepting and validating DHCP messages on a per-VLAN basis. The switch maintains a DHCP snooping binding database that contains information about the trusted hosts with leased IP addresses, such as MAC address, IP address, lease time, binding type, VLAN number, and interface information2. The switch also classifies its ports as trusted or untrusted. Trusted ports are those that connect to authorized DHCP servers or other trusted switches. Untrusted ports are those that connect to untrusted hosts or devices. The switch only allows DHCP messages from trusted ports, and drops any DHCP messages from untrusted ports that do not match the information in the binding database3.
The switch uses DHCPOFFER messages to identify spurious DHCP servers. A DHCPOFFER message is a response from a DHCP server to a client's request for an IP address. The message contains the offered IP address, subnet mask, default gateway, and other configuration parameters for the client4. When the switch receives a DHCPOFFER message from an untrusted port, it compares the source MAC address and the offered IP address with the binding database. If there is no match, the switch considers the message as coming from a spurious DHCP server and drops it. The switch also logs an error message and increments a counter for the number of dropped messages5.
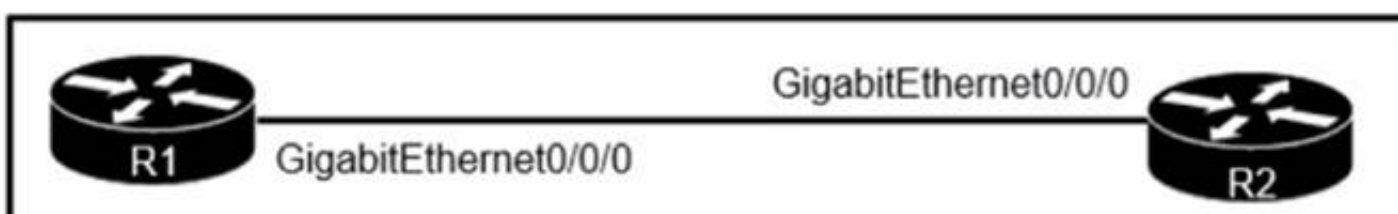References:
? 1: Configuring DHCP Snooping - Cisco
? 2: Catalyst 6500 Release 12.2SX Software Configuration Guide - DHCP Snooping Binding Database
? 3: What is DHCP Snooping? - IONOS
? 4: Dynamic Host Configuration Protocol (DHCP) and Bootstrap Protocol (BOOTP) Parameters
? 5: Configuring DHCP Snooping - Cisco

NEW QUESTION 619
- (Topic 4)
Refer to the exhibit.

A network engineer must configure the link with these requirements:
• Consume as few IP addresses as possible.

• Leave at least two additional useable IP addresses for future growth. Which set of configurations must be applied?

A)

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

B)

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

C)

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

D)

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

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

Answer: B

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

NEW QUESTION 623
- (Topic 4)
What is a function performed by a web server?

A. provide an application that is transmitted over HTTP
B. send and retrieve email from client devices
C. authenticate and authorize a user's identity
D. securely store flies for FTP access

Answer: A

NEW QUESTION 624
- (Topic 4)
Refer to the exhibit.

```
Current Neighbor Relationship

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

Desired Neighbor Relationship

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

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

A)

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

B)

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

C)

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

D)

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

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

Answer: A

NEW QUESTION 627
DRAG DROP - (Topic 4)
Drag and drop the characteristic from the left onto the IPv6 address type on the right.

A. Mastered
B. Not Mastered

Answer: A

Explanation:

NEW QUESTION 628
- (Topic 4)
Which security method is used to prevent man-in-the-middle attack?

A. authorization
B. authentication
C. anti-replay
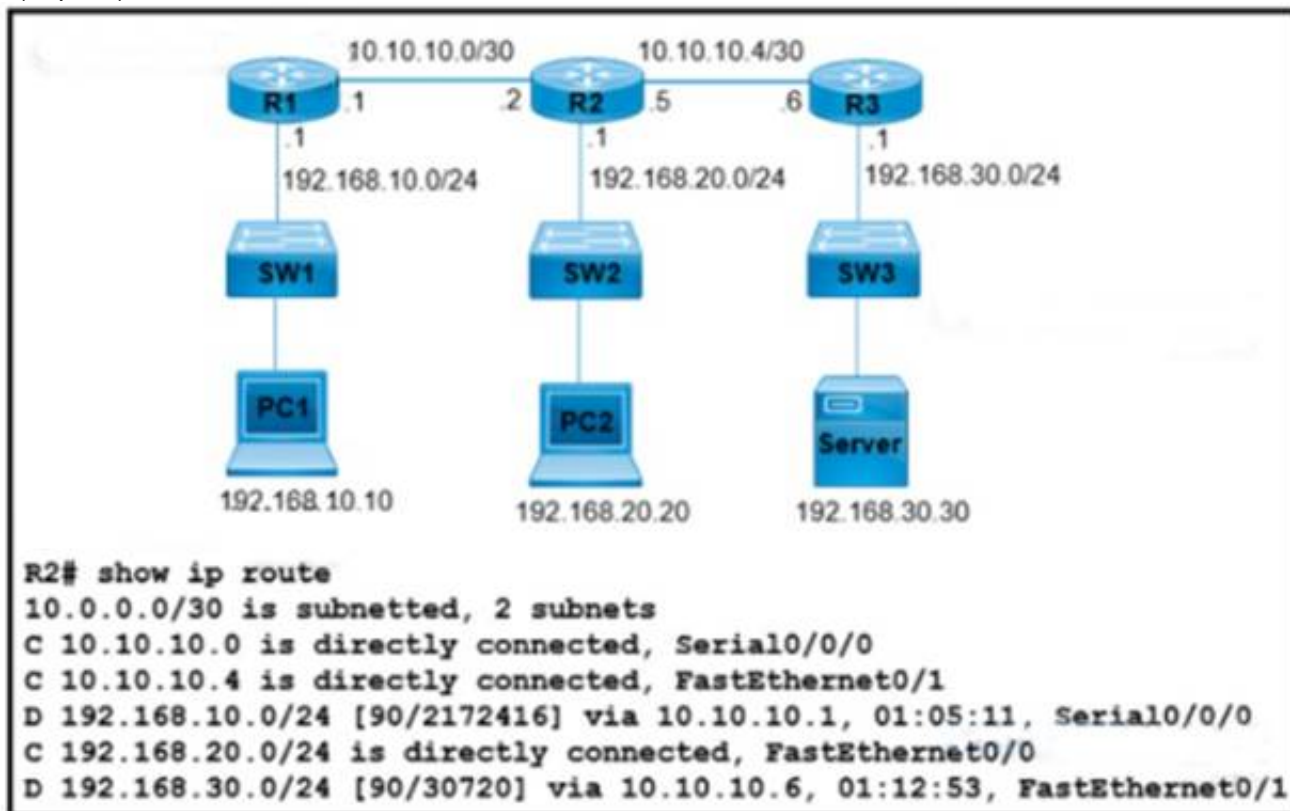D. accounting

Answer: B

NEW QUESTION 632
- (Topic 4)
What provides connection redundancy increased bandwidth and load sharing between a wireless LAN controller and a Layer 2 switch?

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

Answer: D

NEW QUESTION 633
- (Topic 4)


```
R2# show ip route
10.0.0.0/30 is subnetted, 2 subnets
C  10.10.10.0 is directly connected, Serial0/0/0
C  10.10.10.4 is directly connected, FastEthernet0/1
D  192.168.10.0/24 [90/2172416] via 10.10.10.1, 01:05:11, Serial0/0/0
C  192.168.20.0/24 is directly connected, FastEthernet0/0
D  192.168.30.0/24 [90/30720] via 10.10.10.6, 01:12:53, FastEthernet0/1
```

Refer lo the exhibit. What is the next-hop P address for R2 so that PC2 reaches the application server via EIGRP?
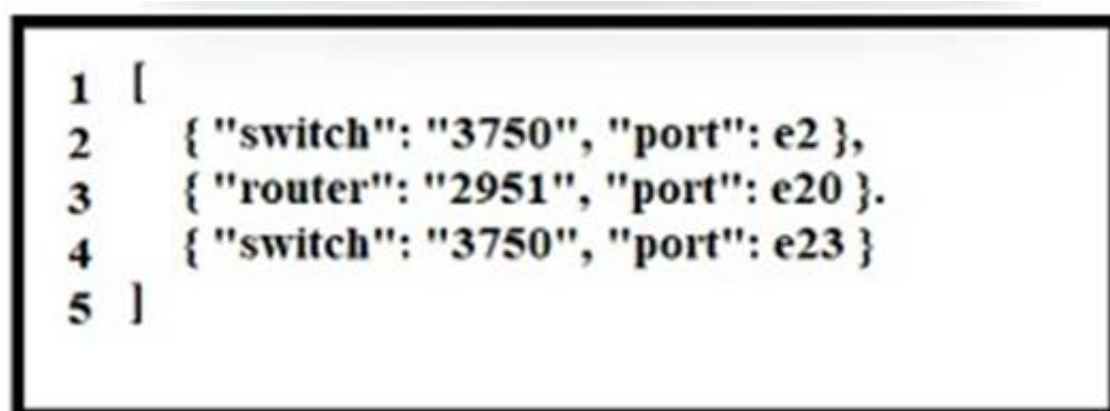
A. 192.168.30.1
B. 10.10 105
C. 10.10.10.6
D. 192.168.201

Answer: D

NEW QUESTION 637
- (Topic 4)
Refer to the exhibit.

What is represented by the word "switch'' in line 2 of the JSON schema?

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

Answer: C

NEW QUESTION 638
- (Topic 4)
Which benefit does Cisco ONA Center provide over traditional campus management?

A. Cisco DNA Center leverages SNMPv3 tor encrypted management, and traditional campus management uses SNMPv2.
B. Cisco DNA Center automates HTTPS for secure web access, and traditional campus management uses HTTP.
C. Cisco DNA Center leverages APIs, and traditional campus management requires manual data gathering.
D. Cisco DNA Center automates SSH access for encrypted entry, and SSH Is absent from traditional campus management.

Answer: B

NEW QUESTION 640
- (Topic 4)
What determines the sequence in which materials are planned during the material requirements planning (MRP) run?

A. The control parameters of the MRP run
B. The creation date of the materials
C. The low-level code of the materials
D. The replenishment lead time of the materials

Answer: C

NEW QUESTION 643
......

Thank You for Trying Our Product

We offer two products:

1st - We have Practice Tests Software with Actual Exam Questions

2nd - Questons and Answers in PDF Format

200-301 Practice Exam Features:

* 200-301 Questions and Answers Updated Frequently

* 200-301 Practice Questions Verified by Expert Senior Certified Staff

* 200-301 Most Realistic Questions that Guarantee you a Pass on Your FirstTry

* 200-301 Practice Test Questions in Multiple Choice Formats and Updatesfor 1 Year

100% Actual & Verified — Instant Download, Please Click
Order The 200-301 Practice Test Here