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PassWritten Workbook

300-410

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300-410**Implementing Cisco Enterprise Advanced Routing and Services (ENARSI)****Version 1.0****QUESTION NO: 1**

Which command displays the IP routing table information that is associated with VRF-Lite?

- A. Show ip vrf
- B. Show ip route vrf
- C. Show run vrf
- D. Show ip protocols vrf

Answer: B. Show ip route vrf

Answer: B. Show ip route vrf

QUESTION NO: 2 DRAG DROP

Drag and drop the MPLS VPN concepts from the left onto the correct descriptions on the right.

route distinguisher	propagates VPN reachability information
route target	distributes labels for traffic engineering
Resource Reservation Protocol	uniquely identifies a customer prefix
multiprotocol BGP	controls the import/export of customer prefixes

Answer:

1-D,2-C,3-B,3-A



QUESTION NO: 3

Refer to the exhibit.

```
R1(config)# do show running-config | section line|username
username cisco secret 5 $1$yb/o$L3G5cXODxpYMSJ70PzEyo0
line con 0
  logging synchronous
line vty 0 4
  login local
  transport input telnet
R1(config)# logging console 7
```


QUESTION NO: 3

Refer to the exhibit.

```
R1(config)# do show running-config | section line|username
username cisco secret 5 $1$yb/o$L3G5cXODxpYMSJ70PzEyo0
line con 0
  logging synchronous
line vty 0 4
  login local
  transport input telnet
R1(config)# logging console 7
R1(config)# do debug aaa authentication
R1(config)#
```

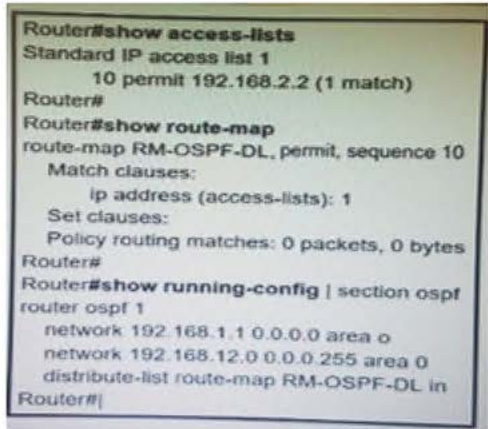
An administrator that is connected to the console does not see debug messages when remote users log in. Which action ensures that debug messages are displayed for remote loggings?

- A. Enter the transport input ssh configuration command.
- B. Enter the terminal monitor exec command.
- C. Enter the logging console debugging configuration command.
- D. Enter the aaa new-model configuration command.

Answer: C

QUESTION NO: 4

Refer to the exhibit.



```
Router#show access-lists
Standard IP access list 1
  10 permit 192.168.2.2 (1 match)
Router#
Router#show route-map
route-map RM-OSPF-DL, permit, sequence 10
  Match clauses:
    ip address (access-lists): 1
  Set clauses:
    Policy routing matches: 0 packets, 0 bytes
Router#
Router#show running-config | section ospf
router ospf 1
  network 192.168.1.1 0.0.0.0 area 0
  network 192.168.12.0 0.0.0.255 area 0
  distribute-list route-map RM-OSPF-DL in
Router#|
```

An engineer is trying to block the route to 192.168.2.2 from the routing table by using the configuration that is shown. The route is still present in the routing table as an OSPF route. Which action blocks the route?

- A. Add this statement to the route map route-map RM-OSPF-DL deny 20
- B. Use a prefix list instead of an access list in the route map.
- C. Change sequence 10 in the route-map command from permit to deny.
- D. Use an extended access list instead of a standard access list.

Answer: B

QUESTION NO: 5 DRAG DROP

Drag and drop the address from the left onto the correct IPv6 filter purposes on the right.

IPv6 Address and Port	Service Purpose
permit ip 2001:d8b:800:200c::/117 2001:0D8B:800:2010::/64 eq 443	Permit NTP from this source 2001:0D8B:0800:200c::1f
permit ip 2001:D88:800:200C::e/126 2001:0D8B:800:2010::/64 eq 514	Permit syslog from this source 2001:0D88:0800:200c::1c
permit ip 2001:d8b:800:200c::800 /117 2001:0D8B:800:2010::/64 eq 80	Permit HTTP from this source 2001:0D8B:0800:200c::0fff
permit ip 2001:D8B:800:200C::c/126 2001:0D8B:800:2010::/64 eq 123	Permit HTTPS from this source 2001:0D8B:0800:200c::07ff

permit ip 2001:d8b:800:200c::/117 2001:0DB8:800:2010::/64
eq 443

permit ip 2001:D88:800:200C::e/126 2001:0DB8:800:2010::/64
eq 514

permit ip 2001:d8b:800:200c::800/117
2001:0DB8:800:2010::/64 eq 80

permit ip 2001:D88:800:200C::c/126 2001:0DB8:800:2010::/64
eq 123

permit ip 2001:D88:800:200C::e/126 2001:0DB8:800:2010::/64
eq 514

permit ip 2001:d8b:800:200c::800/117
2001:0DB8:800:2010::/64 eq 80

permit ip 2001:d8b:800:200c::/117 2001:0DB8:800:2010::/64
eq 443

permit ip 2001:D88:800:200C::c/126 2001:0DB8:800:2010::/64
eq 123

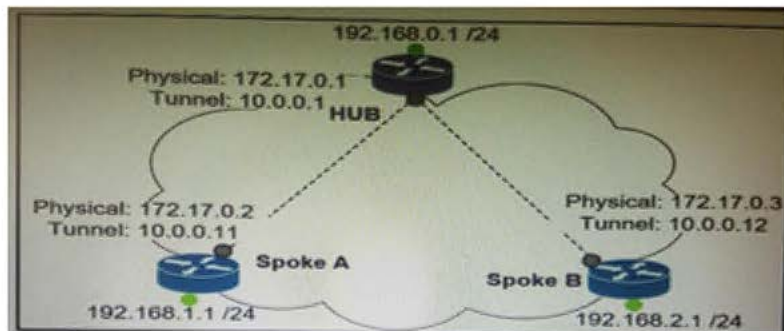
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QUESTION NO: 6

Refer to the exhibit.



Which interface configuration must be configured on the spoke A route enable a dynamic DMVPN tunnel with the spoke B router?

A)

```
interface Tunnel0
description mGRE - DMVPN Tunnel
ip address 10.0.0.11 255.255.255.0
ip nhrp map multicast dynamic
ip nhrp network-id 1
tunnel source 10.0.0.1
tunnel destination FastEthernet 0/0
tunnel mode gre multipoint
```

B)

```
interface Tunnel0
ip address 10.1.0.11 255.255.255.0
ip nhrp network-id 1
tunnel source 1.1.1.10
ip nhrp map 10.0.0.11 172.17.0.2
tunnel mode gre
```

C)

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```
interface Tunnel0
ip address 10.0.0.11 255.255.255.0
ip nhrp map multicast static
ip nhrp network-id 1
tunnel source 10.0.0.1
tunnel mode gre multipoint
```

D)

```
interface Tunnel0
ip address 10.0.0.11 255.255.255.0
ip nhrp network-id 1
tunnel source FastEthernet 0/0
tunnel mode gre multipoint
ip nhrp nhs 10.0.0.1
ip nhrp map 10.0.0.1 172.17.0.1
```

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

Answer: D**QUESTION NO: 7 DRAG DROP**

Drag and drop the MPLS terms from the left onto the correct definitions on the right.

PE	device that forwards traffic based on labels
P	path that the labeled packet takes
CE	device that is unaware of MPLS labeling
LSP	device that removes and adds the MPLS labeling

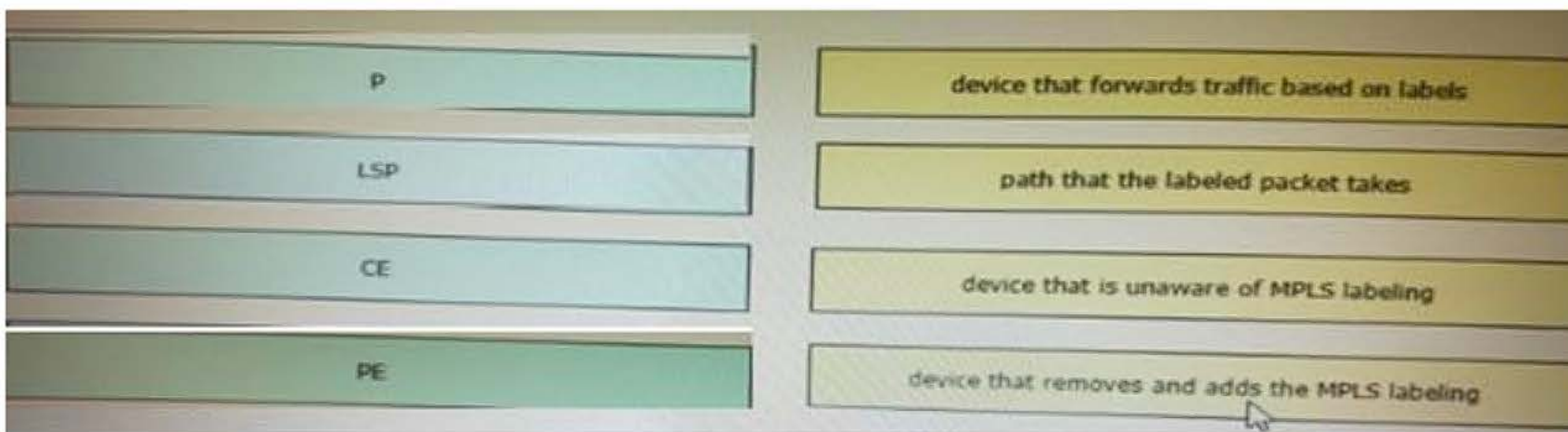
D. Option D

Answer: D

QUESTION NO: 7 DRAG DROP

Drag and drop the MPLS terms from the left onto the correct definitions on the right.

PE	device that forwards traffic based on labels
P	path that the labeled packet takes
CE	device that is unaware of MPLS labeling
LSP	device that removes and adds the MPLS labeling

Answer:**QUESTION NO: 8**

Which statement about MPLS LDP router ID is true?

- A. The force keyword changes the router ID to the specific address causing any impact.
- B. The loopback with the highest IP address is selected as the router ID.
- C. If not configured, the operational physical interface is chosen as the router ID even if a loopback is configured.

Answer: B

QUESTION NO: 9

Which transport layer protocol is used to form LDP sessions?

- A. UDP
- B. SCTP
- C. TCP
- D. RDP

Answer: C. TCP

QUESTION NO: 10

R2 has a locally originated prefix 192.168.130.0/24 and has these configurations:

```
ip prefix-list test seq 5 permit 192.168.130.0/24  
!  
route-map OUT permit10  
match ip address prefix-list test  
set as-path prepend 65000
```

What is the result when the route-map OUT command is applied toward an eBGP neighbor R1 (1.1.1.1) by using the neighbor 1.1.1.1 route-map OUT out command?

- A. R1 sees 192.168.130.0/24 as two hops away instead of one AS hop away
- B. R1 does not forward traffic that is destined for 192.168.130.0/24.
- C. Network 192.168.130.0/24 is not allowed in the R1 table.
- D. R1 does not accept any route other than 192.168.130.0/24.

Answer: A

QUESTION NO: 11

Refer to the exhibit.

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```
snmp-server community ciscotest 1
snmp-server host 192.168.1.128 ciscotest
snmp-server enable traps bgp
```

Network operations cannot read or write any configuration on the device with this configuration from the operation subnet. Which two configuration fix the issue? (Choose two.)

- A. Configure SNMP rw permission in addition to community ciscotest.
- B. Modify access list 1 and allow operations subnet in the access list.
- C. Modify SNMP rw permission in addition to version 1.
- D. Configure SNMP rw permission in addition to version 1.
- E. Configure SNMP rw permission in addition to community ciscotest 1.

Answer: A,B

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Refer to the exhibit. The output of the trace from R5 shows a loop in the network. Which configuration prevents this loop?

A.

```
R3
router ospf 1
 redistribute eigrp 1 subnets route-map SET-TAG
!
route-map SET-TAG deny 10
 set tag 1

R4
router eigrp 1
 redistribute ospf 1 metric 2000000 1 255 1 1500 route-map FILTER-TAG
!
route-map FILTER-TAG deny 10
 match tag 1
```

B.

```
R3
router ospf 1
 redistribute OSPF 1 route-map SET-TAG
!
route-map SET-TAG permit 10
 set tag 1

R4
router eigrp 1
 redistribute ospf 1 metric 2000000 1 255 1 1500 route-map FILTER-TAG
 network 10.1.24.4 0.0.0.0
!
route-map FILTER-TAG deny 10
 match tag 1
!
route-map FILTER-TAG permit 20
```

C.

```
R3
router ospf 1
 redistribute eigrp 1 subnets route-map SET-TAG
!
route-map SET-TAG permit 10
 set tag 1

R4
router eigrp 1
 redistribute ospf 1 metric 2000000 1 255 1 1500 route-map FILTER-TAG
!
route-map FILTER-TAG deny 10
 match tag 1
!
route-map FILTER-TAG permit 20
```

D.

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```
R1#  
router ospf 1  
redistribute eigrp 1 subnets route-map SET-TAG  
!  
route-map SET-TAG permit 10  
set tag 1  
!  
R4  
router ospf 1  
redistribute ospf 1 metric 2000000 1 255 1 1500 route-map FILTER-TAG  
!  
route-map FILTER-TAG permit 10  
match tag 1
```

Answer: B

QUESTION NO: 13

Refer to the exhibit.

```
R1#show ip ssh  
SSH Disabled -- version 1.99  
%Please create RSA keys to enable SSH (and of atleast 768 bits for SSH v2).  
Authentication timeout: 120 secs; Authentication retries: 3  
Minimum expected Diffie Hellman key size: 1024 bits  
IOS Keys in SECSH format (ssh-rsa, base64 encoded) : NONE  
R1#
```

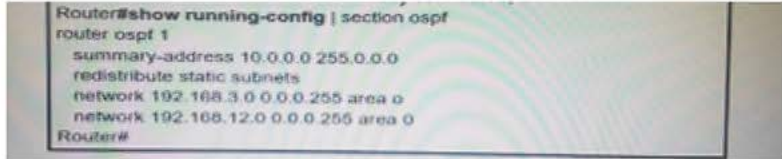
An engineer is trying to connect to a device with SSH but cannot connect. The engineer connects by using the console and find the displayed output when troubleshooting. Which command must be used in configuration mode to enable SSH on the device?

- A. crypto key generate rsa
- B. ip ssh enable
- C. no ip ssh disable
- D. ip ssh version 2

Answer: A. crypto key generate rsa

QUESTION NO: 14

Refer to the exhibit.



```
Router#show running-config | section ospf
router ospf 1
 summary-address 10.0.0.0 255.0.0.0
 redistribute static subnets
 network 192.168.3.0 0.0.0.0 255 area 0
 network 192.168.12.0 0.0.0.0 255 area 0
Router#
```

A engineer is trying to generate a summary route in OSPF for network 10.0.0.0/8, but the summary route does not show up in the routing table. Why is the summary route missing?

- A. The summary route is not visible on this router, but it is visible on other OSPF routers in the same area.
- B. The summary-address command is used only for summary prefixes between areas.
- C. The summary route is visible only in the OSPF database not in the routing table.
- D. There is no route for a subnet inside 10.0.0.0/8, so the summary route is not generated.

Answer: D

QUESTION NO. 15

Refer to the exhibit.

```
Router#show ip route
<output omitted>
Gateway of last resort is not set

    192.168.1.0/32 is subnetted, 1 subnets
O       192.168.1.1 [110/11] via 192.168.12.1, 16:56:40, Ethernet0/0
    192.168.2.0/24 is variably subnetted, 2 subnets, 2 masks
C       192.168.2.0/24 is directly connected, Loopback0
L       192.168.2.2/32 is directly connected, Loopback0
    192.168.3.0/24 is variably subnetted, 2 subnets, 2 masks
C       192.168.3.0/24 is directly connected, Ethernet0/1
L       192.168.3.1/32 is directly connected, Ethernet0/1
    192.168.12.0/24 is variably subnetted, 2 subnets, 2 masks
C       192.168.12.0/24 is directly connected, Ethernet0/0
L       192.168.12.2/32 is directly connected, Ethernet0/0
Router#show running-config | section ospf
router ospf 1
 summary-address 10.0.0.0 255.0.0.0
 redistribute static subnets
 network 192.168.3.0 0.0.0.255 area 0
 network 192.168.12.0 0.0.0.255 area 0
Router#
```

Why is user authentication being rejected?

- A. The TACACS+ server expects "user" but the NT client sends "domain/user"
- B. The TACACS+ server refuses the user because the user is set up for CHAP
- C. The TACACS+ server is down and the user is in the local database
- D. The TACACS+ server is down and the user is not in the local database

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Answer: D

QUESTION NO: 16

Refer to the exhibit.

Output codes: p - suppressed, d - dampened, h - history, * - valid, P - preferred, I - internal, ? - RIB-failure, o - static, m - multipath, b - backup-path, f RT-Fib, x best-external, g additional-path, C RIB-compressed, Origin codes: i - IGP, e - EGP, ? - incomplete, BGP validation codes: V - valid, I - invalid, N - Not found

Network	Next Hop	Metric	LocPrf	Weight	Path
* 172.16.25.0/24	209.165.202.225	0	100	0	?

PC3#show ip bgp summary

BGP router identifier 162.168.3.3, local AS number 65000
 BGP table version is 4, main routing table version 4

Neighbor	V	AS	MsgRcvd	MsgSent	TblVers	InQ	OutQ	Up/Down	State/PfxRcd
192.168.2.2	4	65000	6	7	4	0	0	00:03:08	0

R2 is a route reflector, and R1 and R3 are route reflector clients. The route learns the route to 172.16.25.0/24 from R1, but it does not advertise to R3. What is the reason the route is not advertised?

- A. Route reflector setup requires full BGP mesh between the routers.
- B. In route reflector setup only classfull prefix are advertised from one client to another.
- C. In route reflector setup only classful prefix are advertised to other clients.
- D. R2 does not have a route to the next hop, so R2 does not advertise the prefix to the clients.

Answer: D

QUESTION NO: 17

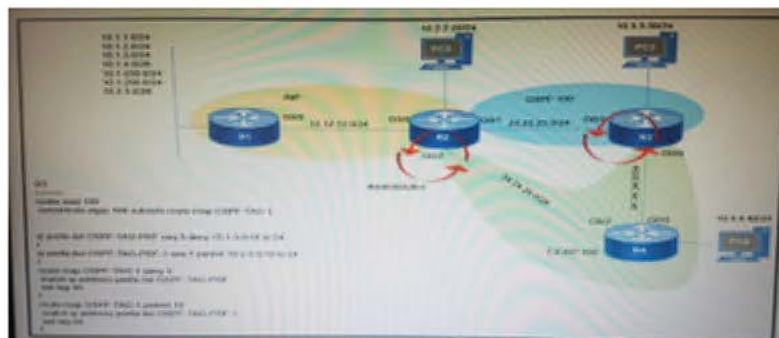
Which method changes the forwarding decision that a router makes first changing the routing table or influencing the IP data plane?

- A. Policy-based routing
- B. Nonbroadcast multi-access
- C. Packet switching
- D. Forwarding information base

Answer: A

QUESTION NO: 18

Refer to the exhibit.

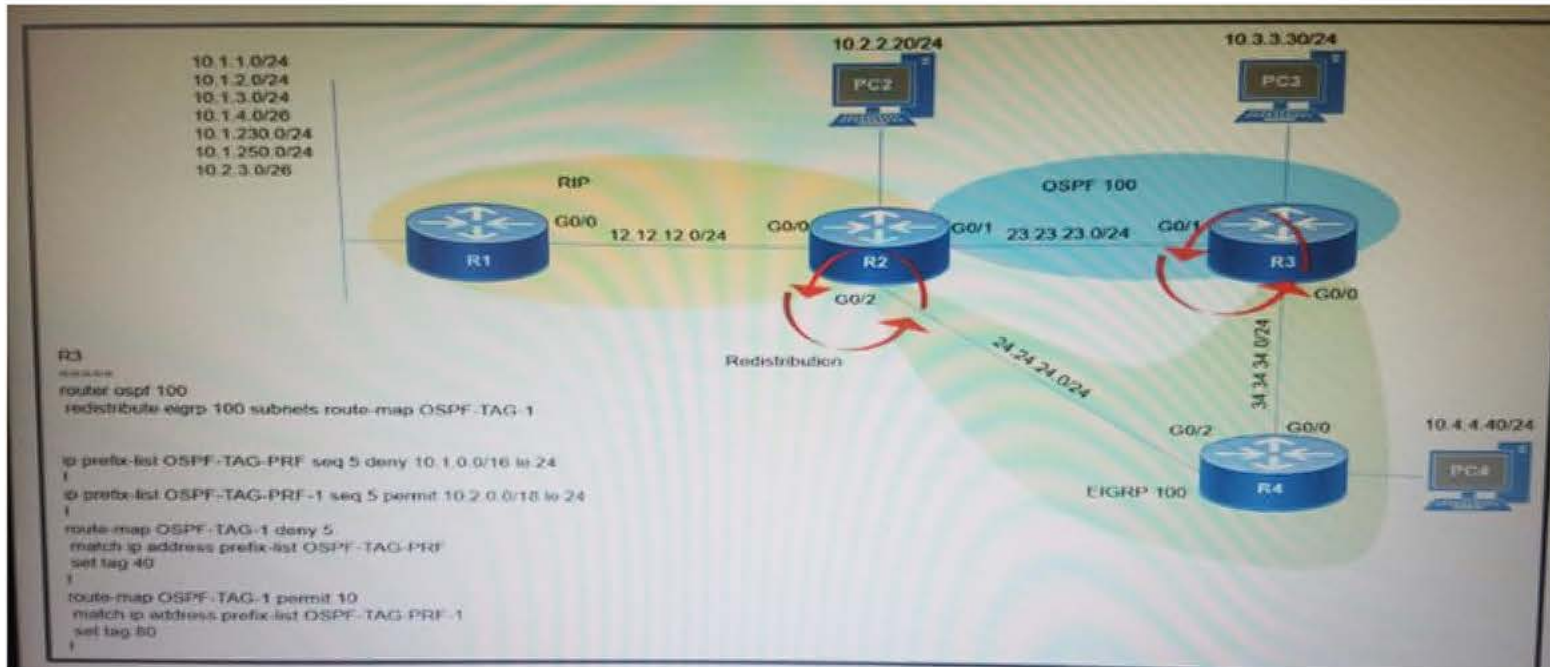


Which subnet is redistributed from EIGRP to OSPF routing protocols?

- A. 10.2.2.0/24
- B. 10.1.4.0/24

QUESTION NO: 18

Refer to the exhibit.



Which subnet is redistributed from EIGRP to OSPF routing protocols?

- A. 10.2.2.0/24
- B. 10.1.4.0/24

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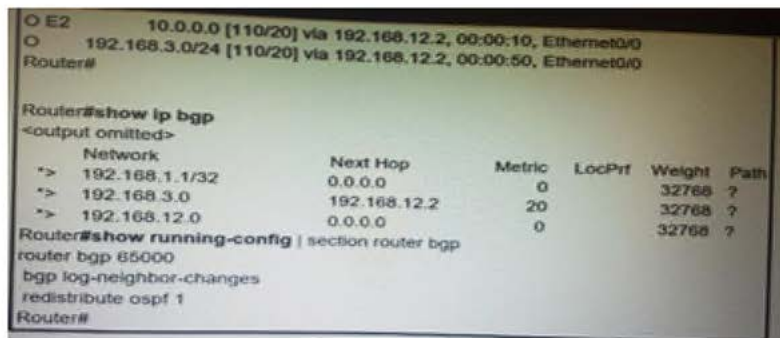
C. 10.1.2.0/24

D. 10.2.3.0/26

Answer: A

QUESTION NO: 19

Refer to the exhibit.



An engineer is trying to redistribute OSPF to BGP, but not all of the routes are redistributed. What is the reason for this issue?

A. By default, only internal OSPF routes are redistributed into BGP

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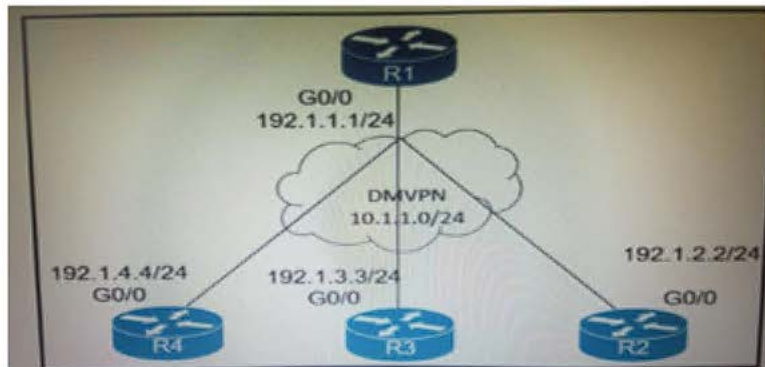
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- B. By default, only internal routers and external type 1 routes are redistributed into BGP.
- C. BGP convergence is slow, so the route will eventually be present in the BGP table.
- D. Only classful networks are redistributed from OSPF to BGP.

Answer: A

QUESTION NO: 20

Refer to the exhibits.



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```
on R2:
R2(config)# interface tunnel 1
R2(config-if)# ip address 10.1.1.2 255.255.255.0
R2(config-if)# tunnel source FastEthernet0/0
R2(config-if)# tunnel mode gre multipoint
R2(config-if)# ip nhrp network-id 222
R2(config-if)# ip nhrp nhs 10.1.1.1
R2(config-if)# ip nhrp map 10.1.1.1 192.1.1.1

On R3:
R3(config)# interface tunnel 1
R3(config-if)# ip address 10.1.1.3 255.255.255.0
R3(config-if)# tunnel source FastEthernet0/0
R3(config-if)# tunnel mode gre multipoint
R3(config-if)# ip nhrp network-id 333 R3(config-if)# ip nhrp nhs 10.1.1.1
R3(config-if)# ip nhrp map 10.1.1.1 192.1.1.1

On R4: R4(config)# interface tunnel 1
R4(config-if)# ip address 10.1.1.4 255.255.255.0
R4(config-if)# tunnel source FastEthernet0/0
R4(config-if)# tunnel mode gre multipoint
R4(config-if)# ip nhrp network-id 444
R4(config-if)# ip nhrp nhs 10.1.1.1
R4(config-if)# ip nhrp map 10.1.1.1 192.1.1.1
```

Phase-3 tunnels cannot be established between spoke-to-spoke in DMWN. Which two commands are missing? (Choose two.)

- A. The ip nhrp redirect command is missing on the spoke routers.
- B. The ip nhrp shortcut command is missing on the spoke routers.
- C. The ip nhrp redirect commands is missing on the hub router.
- D. The ip shortcut commands is missing on the hub router.
- E. The ip nhrp command is missing on the hub router.

Answer: B,C

QUESTION NO: 21

Refer to the exhibit. Which configuration configures a policy on R1 to forward any traffic that is sourced from the 192.168.130.0/24 network to .

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A.

```
access-list 1 permit 192.168.130.0 0.0.0.255
!
interface Gi0/2
ip policy route-map test
!
route-map test permit 10
match ip address 1
set ip next-hop 172.20.20.2
```

B.

```
access-list 1 permit 192.168.130.0 0.0.0.255
!
interface Gi0/2
ip policy route-map test
!
route-map test permit 10
match ip address 1
set ip next-hop 172.20.20.1
```

C.

```
access-list 1 permit 192.168.130.0 0.0.0.255
!
interface Gi0/1
ip policy route-map test
!
route-map test permit 10
match ip address 1
set ip next-hop 172.20.40.2
```

D.

```
access-list 1 permit 192.168.130.0 0.0.0.255
!
interface Gi0/1
ip policy route-map test
!
route-map test permit 10
match ip address 1
set ip next-hop 172.20.40.1
```

Answer: D

QUESTION NO: 22

Which protocol is used to determine the NBMA address on the other end of a tunnel when mGRE is used?

- A. NHRP
- B. IPsec
- C. MP-BGP
- D. OSPF

Answer: A

QUESTION NO: 23

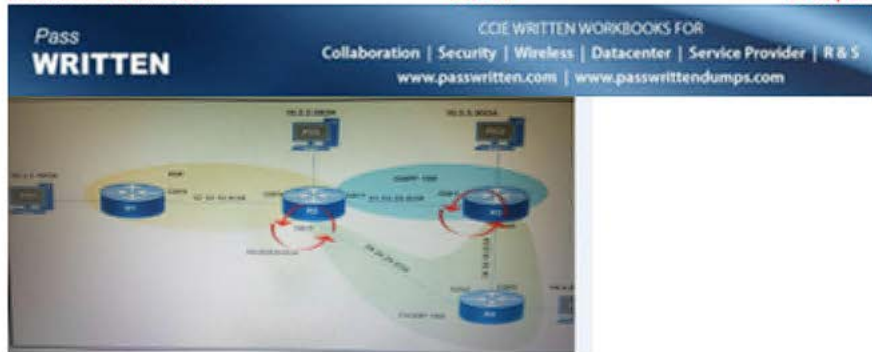
Which is statement about IPv6 inspection is true?

- A. It teams and secures bindings for stateless autoconfiguration addresses in Layer 3 neighbor tables
- B. It learns and secures bindings for stateful autoconfiguration addresses in Layer 3 neighbor tables
- C. It teams and secures bindings for stateful autoconfiguration addresses in Layer 2 neighbor tables
- D. It learns and secures binding for stateless autoconfiguration addresses in Layer 2 neighbor tables.

Answer: D

QUESTION NO: 24

Refer to the exhibit.



After redistribution is enabled between the routing protocols, PC2, PC3, and PC4 cannot reach PC1. Which action can be engineer take to solve the issue so that all the PCs are reachable?

- A. Filter the prefix 10.1.1.0/24 when redistributed from OSPF to EIGRP.
- B. Set the administrative distance 100 under the process on R2.
- C. Filter the prefix 10.1.1.0/24 when redistributed from RIP to EIGRP.
- D. Redistribute the directly connected interfaces on R2.

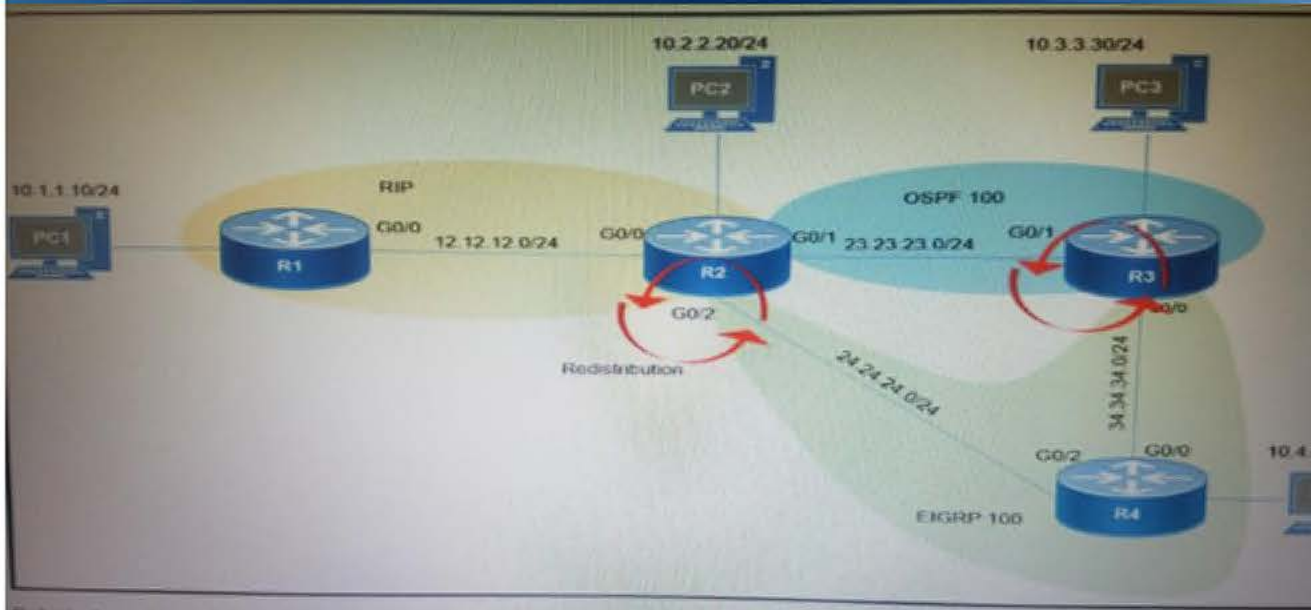
Answer: A

QUESTION NO: 25

An engineer configured the wrong default gateway for the Cisco DNA center enterprise interface during the install. Which command must the engineer run to correct the configuration?

- A. Sudo update config install
- B. Sudo maglev reinstall
- C. Sudo maglev-config update
- D. Sudo maglev install config update

Answer: C



After redistribution is enabled between the routing protocols, PC2, PC3, and PC4 cannot reach PC1. Which action can be engineer take to solve the issue so that all the PCs are reachable?

- A. Filter the prefix 10.1.1.0/24 when redistributed from OSPF to EIGRP.
- B. Set the administrative distance 100 under the process on R2.
- C. Filter the prefix 10.1.1.0/24 when redistributed from RIP to EIGRP.

QUESTION NO: 26

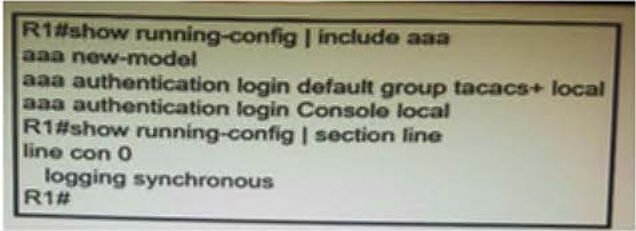
What is a prerequisite for configuring BFD?

- A. All routers in the path between two BFD endpoints must have BFD enabled.
- B. Jumbo frame support must be configured on the router that is using BFD.
- C. Cisco Express Forwarding must be enabled on all participating BFD endpoints.
- D. To use BFD with BGP, the timers 3 9 command must first be configured in the BGP routing process.

Answer: C

QUESTION NO: 27

Refer to the exhibit.



```
R1#show running-config | include aaa
aaa new-model
aaa authentication login default group tacacs+ local
aaa authentication login Console local
R1#show running-config | section line
line con 0
logging synchronous
R1#
```

An engineer is trying to configure local authentication on the console line, but the device is trying to authenticate using TACACS+. Which action produces the desired configuration?

- A. Add the `aaa authentication login default group tacacs+ local-case` command to the global configuration
- B. Add the `login authentication Console` command to the line configuration
- C. Replace the capital "C" with a lowercase "c" in the `aaa authentication login Console local` command
- D. Add the `aaa authentication login default none` command to the global configuration

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Answer: B

QUESTION NO: 28

Refer to the exhibit.

```
service timestamps debug datetime msec
service timestamps log datetime
clock timezone MST -7 0
clock summer-time MST recurring
ntp authentication-key 1 md5 00101A0B0152181206224747071E 7
ntp server 10.10.10.10

R1#show clock
*06:13:44.045 MST Sun Dec 30 2018

R1#conf t
Enter configuration commands, one per line. End with CNTL/Z.
R1(config)#logging host 10.10.10.20
R1(config)#end
R1#
*Dec 30 13:15:28: %SYS-5-CONFIG_1: Configured from console by
console
R1#
*Dec 30 13:15:28: %SYS-4-LOGGINGHOST_STARTSTOP: Logging to host
10.10.10.20 port 514 started - CLI initiated
```

An administrator noticed that after a change was made on R1, the timestamps on the system logs did not match the clock.

What is the reasons for this error?

- A. The keyword localtime is defined on the timestamp service command.
- B. The NTP server is in an different time zone.
- C. An authentication error with the NTP server results in an incorrect timestamp.
- D. The system clock is set incorrectly to summer-time hours

Answer: C

QUESTION NO: 29

Which configuration adds an IPv4 interface to an OSPFv3 process in OSPFv3 address family configuration?

- A. Router ospf3 1 address-family ipv4
- B. Router(config-router)#ospfv3 1 ipv4 area 0
- C. Router(config-router)#ospfv3 3 1
- D. Router ospfv3 1
address-family ipv4 unicast

Answer: D

QUESTION NO: 30

While troubleshooting connectivity issues to a router, these details are noticed:

Standard pings to all router interfaces, including loopbacks, are successful.

Data traffic is unaffected.

SNMP connectivity is intermittent.

SSH is either or disconnects frequently.

Which command must be configured first to troubleshoot this issue?

- A. Show policy-map control-plane
- B. Show policy-map

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- C. Show interface inc drop
- D. Show ip route

Answer: A

QUESTION NO: 31

Refer to the exhibit.

```
R1(config)#route-map ADD permit 20
R1(config-route-map)#set tag 1

R1(config)#router ospf1
R1(config-router)#redistribute rip subnets route-map ADD
```

Which statement about R1 is true?

- A. OSPF redistributes RIP routes only if they have a tag of one
- B. RIP learned routes are distributed to OSPF with a tag value of one
- C. R1 adds one to the metric for RIP learned routes before redistributing to OSPF
- D. RIP routes are redistributed to OSPF without any changes

Answer: B

QUESTION NO: 32

Refer to the exhibit.

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```
conf t
flow record v4_r1
 match ipv4 tos
 match ipv4 protocol
 match ipv4 source address
 match ipv4 destination address
 match transport source-port
 match transport destination-port
 collect counter bytes long
 collect counter packets long
}

flow exporter EXPORTERS-1
 destination 172.16.10.2
 transport udp 90
}

flow monitor FLOW-MONITOR-1
 record v4_r1
 exit
}

ip conf
}

interface Ethernet0/0.1
 ip address 172.16.6.2 255.255.255.0
 ip flow monitor FLOW-MONITOR-1 ingress
```

A router receiving BGP routing updates from multiple neighbors for routers in AS 690. What is the reason that the router still sends traffic that is destined to AS 690 to a neighbor other than 10.222.1..1?

- A. The local preference value in another neighbor statement is higher than 250.
- B. The local preference value should be set to the same value as the weight in the route map.
- C. The route map is applied in the wrong direction.
- D. The weight value in another statement is higher than 200.

Answer: D

QUESTION NO: 33

Which list defines the contents of an MPLS label?

- A. 20-bit label; 3-bit traffic class; 1-bit bottom stack; 8-bit TTL.
- B. 32-bit label; 3-bit flow label; 1-bit bottom stack; 8-bit hop limit.
- C. 20-bit label; 3-bit flow label; 1-bit bottom stack; 8-bit hop limit
- D. 32-bit label; 3-bit traffic class; 1-bit bottom stack; 8-bit TTL

Answer: A. 20-bit label; 3-bit traffic class; 1-bit bottom stack; 8-bit TTL.

QUESTION NO: 34

A network engineer is investigating a flapping (up/down) interface issue on a core switch that is synchronized to an NTP server. Log output does not show the time of the flap. Which command allows on the switch the time of the flap according to the clock on the device?

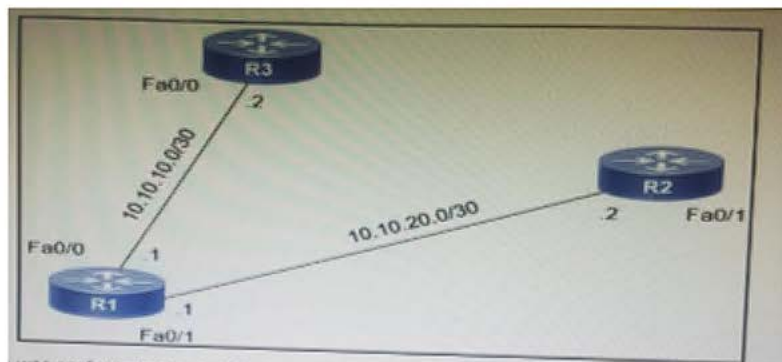
Clock calendar-valid

- A. clock calendar-valid
- B. service timestamps log datetime localtime show-timezone
- C. service timestamps log uptime
- D. clock summer-time mst recurring 2 Sunday mar 2:00 1 sunday nov 2:00

Answer: B

QUESTION NO: 35

Refer to the exhibit.



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An IP SLA was configured on router R1 that allows the default route to be modified in the event that Fa0/0 loses reachability with the router R3 Fa0/0 interface. The route has changed to flow through route R2. Which debug command is used to troubleshoot this issue?

- A. debug ip flow
- B. debug ip sla error
- C. debug ip routing
- D. debug ip packet

Answer: C. debug ip routing

QUESTION NO: 36

Refer to the exhibit.

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```
R1#show policy-map control-plane
Control Plane
```

```
Service-policy input: CoPP-BGP
```

```
Class-map: BGP (match-all)
```

```
2716 packets, 172071 bytes
```

```
5 minute offered rate 0000 bps, drop rate 0000 bps
```

```
Match: access-group name BGP
```

```
drop
```

```
Class-map: class-default (match-any)
```

```
5212 packets, 655966 bytes
```

```
5 minute offered rate 0000 bps, drop rate 0000 bps
```

```
Match: any
```

What is the result if applying this configuration?

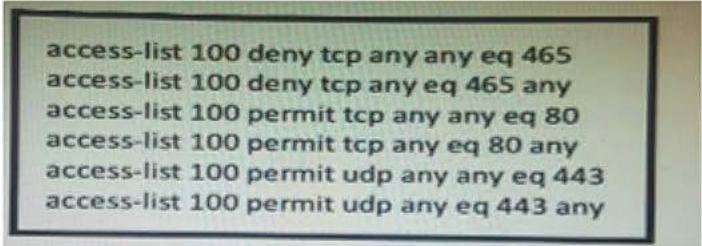
- A. The router can form BGP neighborships with any other device.
- B. The router can form BGP neighborships with any device that matched by the access list named "BGP"
- C. The router cannot form BGP neighborships with any other device
- D. The router cannot form BGP neighborships with any device that is matched by the access list named "BGP"

Answer: D

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QUESTION NO: 37

Refer to the exhibit.



```
access-list 100 deny tcp any any eq 465
access-list 100 deny tcp any eq 465 any
access-list 100 permit tcp any any eq 80
access-list 100 permit tcp any eq 80 any
access-list 100 permit udp any any eq 443
access-list 100 permit udp any eq 443 any
```

During troubleshooting it was discovered that the device is not reachable using a secure web browser. What is needed to fix the problem?

- A. permit tcp port 465.
- B. permit tcp port 443
- C. permit udp port 465
- D. permit tcp port 22

Answer: B

QUESTION NO: 38

Drag and drop the OSPF adjacency states from the left onto the correct descriptions on the right.

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Init

Each router compares the DBD packets that were received from the other router.

2-way

Routers exchange information with other routers in the multiaccess network.

Down

The neighboring router requests the other routers to send missing entries.

Exchange

The network has already elected a DR and a backup BDR.

ExStart

The OSPF router ID of the receiving router was not contained in the hello message.

Loading

No hellos have been received from a neighbor router.

Answer:

Answer:

Exchange	Each router compares the DBD packets that were received from the other router.
Loading	Routers exchange information with other routers in the multiaccess network.
ExStart	The neighboring router requests the other routers to send missing entries.
2-way	The network has already elected a DR and a backup BDR.
Init	The OSPF router ID of the receiving router was not contained in the hello message.
Down	No hellos have been received from a neighbor router.

QUESTION NO: 39

Drag and drop the DHCP messages from the left onto the correct uses on the right.

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DHCPACK

server-to-client communication, refusing the request for configuration parameters

DHCPINFORM

client-to-server communication, indicating that the network address is already in use

DHCPNAK

server-to-client communication with configuration parameters, including committed network address

DHCPDECLINE

client-to-server communication, asking for only local configuration parameters that the client has already externally configured as an address

Answer: 1-C,2-B,3-A,4-D

QUESTION NO: 40

Drag and drop the packet from the left onto the correct descriptions on the right.

data plane packets	user-generated packets that are always forwarded by network devices to other end-station devices
control plane packets	network device generated or received packets that are used for the creation of the network itself
management plane packets	network device generated or received packets; packets that are used to operate the network
services plane packets	user-generated packets that are forwarded by network devices to other end-station devices, but that require higher priority than the normal traffic by the network devices

Answer: 1-A,2-B,3-C,4-D

QUESTION NO: 41

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Refer to the exhibit.

```
R1#show running-config | section dhcp
ip dhcp excluded-address 192.168.1.1 192.168.1.49
ip dhcp pool DHCP
network 192.168.1.0 255.255.255.0
default-router 192.168.1.1
dns-server 8.8.8.8
lease 0 12
```

Users report that IP addresses cannot be acquired from the DHCP server. The DHCP server is configured as shown. About 300 total nonconcurrent users are using this DHCP server, but none of them are active for more than two hours per day. Which action fixes the issue within the current resources?"

- A. Configure the DHCP lease time to a bigger value
- B. Add the network 192.168.2.0 255.255.255.0 command to the DHCP pool
- C. Modify the subnet mask to the network 192.168.1.0 255.255.254.0 command in the DHCP pool
- D. Configure the DHCP lease time to a smaller value

Answer: D

QUESTION NO: 42

Refer to the exhibit.



Which configuration denies Telnet traffic to router 2 from 198A:0:200C:: 1/64?

- A.

```
ipv6 access-list-Deny_Telnet sequence 10 deny tcp host 198A:0:200C::1/64 host 201A:0:205C::1/64
```

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```
! int Gi0/0
```

```
IPv6 access-map Deny_Telnet in
```

```
!
```

B.

```
IPv6 access-list-Deny_Telnet sequence 10 deny top host 198A:0:200C::1/64 host  
201A:0:205C::1/64
```

```
! int Gi0/0
```

```
IPv6 traffic-filter Deny_Telnet in
```

```
!
```

C.

```
IPv6 access-list-Deny_Telnet sequence 10 deny top host 198A:0:200C::1/64 host  
201A:0:205C::1/64 eq telnet
```

```
! int Gi0/0
```

```
IPv6 access-map Deny_Telnet in
```

```
!
```

D.

```
IPv6 access-list-Deny_Telnet sequence 10 deny top host 198A:0:200C::1/64 host  
201A:0:205C::1/64 eq telnet
```

```
! int Gi0/0
```

```
IPv6 traffic-filter Deny_Telnet in
```

```
!
```

Answer: D

QUESTION NO: 43

statement about route distinguishes in an MPLS network is true?

- A. Route distinguishes make a unique VPNv4 address across the MPLS network.
- B. Route distinguishers allow multiple instances of a routing table to coexist within the edge router.
- C. Route distinguishes are used for label bindings
- D. Route distinguishes define which prefixes are imported and exported on the edge router

Answer: A

QUESTION NO: 44

Refer to the exhibit.

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```
Cat3850-Stack-2# show policy-map
```

```
Policy Map LIMIT_BGP
Class BGP
drop
```

```
Policy Map SHAPE_BGP
Class BGP
Average Rate Traffic Shaping
cir 10000000 (bps)
```

```
Policy Map POLICE_BGP
Class BGP
police cir 1000k bc 1500
conform-action transmit
exceed-action transmit
```

```
Policy Map COPP
Class BGP
police cir 1000k bc 1500
conform-action transmit
exceed-action drop
```

Which control plan policy limits BGP traffic that is destined to the CPU to 1 Mbps and ignores BGP traffic that is higher rate?

- A. policy-map SHAPE_BGP
- B. policy-map LIMIT_BGP
- C. policy-map POLICE_BGP
- D. policy-map COPP

Answer: D

QUESTION NO: 46

Refer to the exhibit.

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```
Router# show tag-switching tdp bindings
(...)
tib entry: 10.10.10.1/32, rev 31
  local binding: tag: 18
  remote binding: tsr: 10.10.10.1:0, tag: imp-null
  remote binding: tsr: 10.10.10.2:0, tag: 18
  remote binding: tsr: 10.10.10.6:0, tag: 21
tib entry: 10.10.10.2/32, rev 22
  local binding: tag: 17
  remote binding: tsr: 10.10.10.2:0, tag: imp-null
  remote binding: tsr: 10.10.10.1:0, tag: 19
  remote binding: tsr: 10.10.10.6:0, tag: 22
```

What does the imp-null tag represent in the MPLS VPN cloud?

- A. Include the EXP bit
- B. Exclude the EXP bit
- C. Impose the label
- D. Pop the label

Answer: D

QUESTION NO: 46

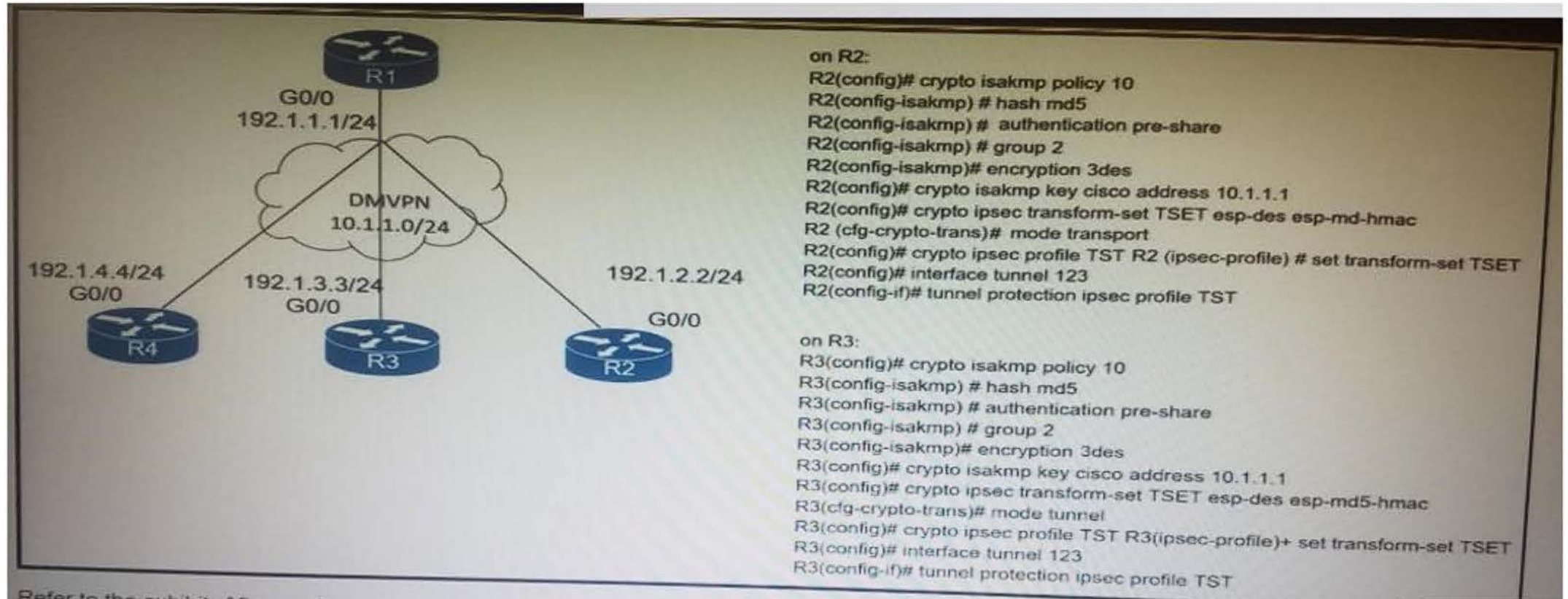
When provisioning a device in Cisco DNA Center, the engineer sees the error message "Cannot select the device. Not compatible with template.". What is the reason for the error?

- A. The software version of the template is different from the software version of the device
- B. The changes to the template were not committed
- C. The template has an incorrect configuration.
- D. The tag that was used to filter the templates does not match the device tag.

Answer: D

QUESTION NO: 47

Refer to the exhibit.



After applying IPsec, the engineer observed that the DMVPN tunnel went down, and both spoke-to-spoke and hub were not establishing. Which two actions resolved the issue? (Choose two.)

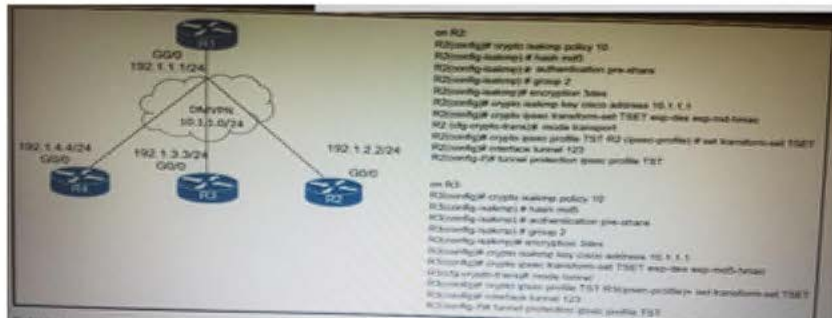
A. Configure the crypto isakmp key cisco address 0.0.0.0 on R2 and R3.

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QUESTION NO: 47

Refer to the exhibit.



After applying IPsec, the engineer observed that the DMVPN tunnel went down, and both spoke-to-spoke and hub were not establishing. Which two actions resolved the issue? (Choose two.)

- A. Configure the crypto isakmp key cisco address 0.0.0.0 on R2 and R3.
- B. Remove the crypto isakmp key cisco address 10.1.1.1 on R2 and R3.
- C. Change the mode from mode transport to mode tunnel on R2.
- D. Configure the mode from mode tunnel to mode transport on R3.

Answer: AB

QUESTION NO: 48

Which configuration enables the VRF that is labeled "inet" on FastEthernet0/0?

A.

```

R1(config)# ip vrf Inet
R1(config-vrf)#ip vrf FastEthernet0/0
  
```

B.

```
R1(config)#ip vrf Inet FastEthernet0/0
```

C.

```
R1(config)# ip vrf Inet  
R1(config-vrf)#interface FastEthernet0/0  
R1(config-if)#ip vrf forwarding Inet
```

D.

```
R1(config)#router ospf 1 vrf Inet  
R1(config-router)#ip vrf forwarding FastEthernet0/0
```

Answer: C

QUESTION NO: 49

Which attribute eliminates LFAs that belong to protected paths in situations where links in a network are connected through a common fiber?

- A. Interface-disjoint
- B. Shared risk link group-disjoint
- C. Linecard-disjoint
- D. Lowest-repair-path-metric

Answer: B. Shared risk link group-disjoint

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QUESTION NO: 50

While working with software images, an engineer observes that Cisco DNA Center cannot upload its software image directly from the device. Why is the image not uploading?

- A. The device has lost connectivity to Cisco DNA Center.
- B. The software image for the device is in bundle mode
- C. The software image for the device is in install mode.
- D. The device must be resynced to Cisco DNA Center

Answer: B

QUESTION NO: 51

Refer to the exhibit.

```
Router#show running-config | include ip route
ip route 192.168.2.2 255.255.255.255 209.165.200.225 130
Router#show ip route
<output omitted>
Gateway of last resort is not set

192.168.1.0/32 is subnetted, 1 subnets
C      192.168.1.1 is directly connected, Loopback0
192.168.2.0/32 is subnetted, 1 subnets
O      192.168.2.2 [110/11] via 192.168.12.2, 00:52:09, Ethernet0/0
192.168.12.0/24 is variably subnetted, 2 subnets, 2 masks
C      192.168.12.0/24 is directly connected, Ethernet0/0
L      192.168.12.1/32 is directly connected, Ethernet0/0
209.165.200.0/24 is variably subnetted, 2 subnets, 2 masks
C      209.165.200.0/24 is directly connected, Ethernet0/1
      209.165.200.226/32 is directly connected, Ethernet0/1
```


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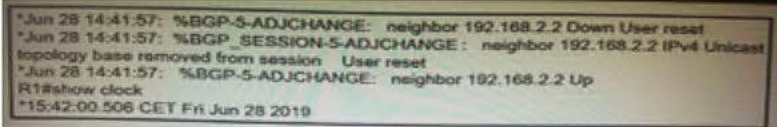
An engineer configuration a static route on a router, but when the engineer checks the route to the destination, a different next hop is chosen. What is the reason for this?

- A. The configured AD for the static route is higher than the AD of OSPF.
- B. The metric of the OSPF route is lower than the metric of the static route.
- C. Dynamic routing protocol always have priority over static routes.
- D. The syntax of the static route is not valid so the route is not considered.

Answer: A

QUESTION NO: 52

Refer to the exhibit.



```
*Jun 28 14:41:57: %BGP-5-ADJCHANGE: neighbor 192.168.2.2 Down User reset
*Jun 28 14:41:57: %BGP_SESSION-5-ADJCHANGE: neighbor 192.168.2.2 IPv4 Unicast
topology base removed from session User reset
*Jun 28 14:41:57: %BGP-5-ADJCHANGE: neighbor 192.168.2.2 Up
R1#show clock
*15:42:00.506 CET Fri Jun 28 2019
```

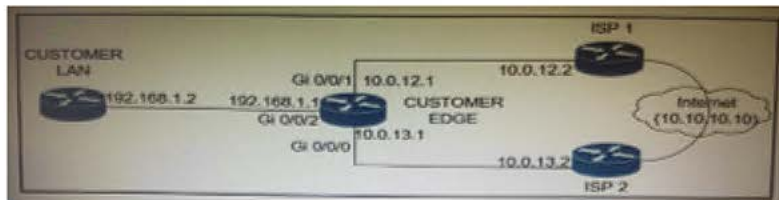
An engineer is troubleshooting BGP on a device but discovers that the clock on the device does not correspond to the time stamp of the log entries. Which action ensures consistency between the two times?

- A. Configure the logging clock synchronize command in global configuration mode
- B. Configure the service timestamps log uptime command in global configuration mode
- C. Configure the service timestamps log datetime localtime command in global configuration mode
- D. Make sure that the clock on the device is synchronized with an NTP server

Answer: D

QUESTION NO: 53

Refer to the exhibit.



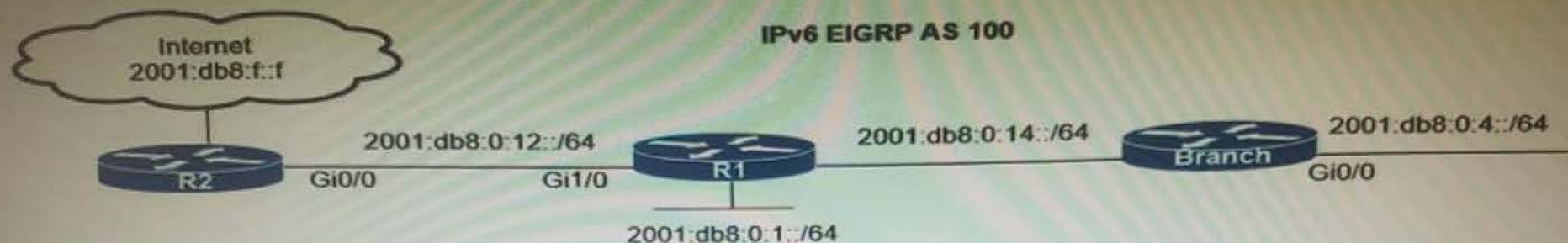
ISP 1 and ISP 2 directly connect to the internet. A customer is tracking both ISP links to achieve redundancy and cannot see the Cisco IP SLA tracking output on the router console. Which command is missing from the IP SLA configuration?

- A. Start-time now
- B. Start-time 00:00
- C. Start-time 0
- D. Start-time immediately

Answer: A

QUESTION NO: 54

Refer to the exhibit.



```
R1# show ipv6 eigrp topology
EIGRP-IPv6 Topology Table for AS(100)/ID(10.1.12.1)
Codes: P - Passive, A - Active, U - Update, Q - Query, R - Reply,
       r - reply Status, s - sia Status
P 2001:DB8:0:4::/64, 1 successors, FD is 28416
   via FE80::C828:DFF:FEF4:1C (28416/2816), FastEthernet3/0
P 2001:DB8:0:1::/64, 1 successors, FD is 2816
   via Connected, GigabitEthernet0/0
P ::/0, 1 successors, FD is 2816
   via FE80::C821:17FF:FE04:8 (2816/256), GigabitEthernet1/0
P 2001:DB8:0:14::/64, 1 successors, FD is 28160
   via Connected, FastEthernet3/0
P 2001:DB8:0:12::/64, 1 successors, FD is 2816
   via Connected, GigabitEthernet1/0
```

```
Branch# show ipv6 eigrp topology
EIGRP-IPv6 Topology Table for AS(100)/ID(4.4.4.4)
Codes: P - Passive, A - Active, U - Update, Q - Query, R - Reply,
       r - reply Status, s - sia Status
P 2001:DB8:0:4::/64, 1 successors, FD is 2816
   via Connected, GigabitEthernet0/0
P 2001:DB8:0:1::/64, 1 successors, FD is 28416
   via FE80::C820:17FF:FE04:54 (28416/2816), FastEthernet1/0
P 2001:DB8:0:14::/64, 1 successors, FD is 28160
   via Connected, FastEthernet1/0
P 2001:DB8:0:12::/64, 1 successors, FD is 28416
   via FE80::C820:17FF:FE04:54 (28416/2816), FastEthernet1/0
```

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Refer to the exhibit.



User in the branch network of 2001. db8 0.4 report they cannot access the internet. Which command is issued in IPv6 router EIGRP 100 configuration mode to solve this issue?

- A. Issue the eigrp stub command on R1
- B. Issue the no eigrp stub command on R1..
- C. Issue the eigrh command on R2.
- D. Issue the no eighrp stub command on R2.

Answer: B

QUESTION NO: 55

Which statement about IPv6 RA Guard is true?

- A. It does not offer protection in environments where IPv6 traffic is tunneled
- B. It cannot be configured on a switch port interface in the ingress direction.
- C. Packets that are dropped by IPv6 RA Guard cannot be spanned.
- D. It is not supported in hardware when TCAM is programmed.

Answer: A

QUESTION NO: 56

Drag and drop the SNMP attributes in Cisco IOS devices from the onto the correct SNMPv2c or SNMPv3 categories on the right.

The interface shows six attributes on the left and two categories on the right:

- Attributes (Left):**
 - community string
 - username and password
 - authentication
 - no encryption
 - privileged
 - read-only
- Categories (Right):**
 - SNMPv2c:** Three empty slots.
 - SNMPv3:** Three empty slots.

Answer: SNMPv2 – 1,4,6, SNMPv3- 2,3,5

QUESTION NO: 57

An engineer is trying to copy an IOS file from one router to another router by using TFTP. Which two actions are needed to allow the file to copy? (Choose two.)

- A. Configure the TFTP authentication on the source router with the `tftp-server authentication local` command.
- B. Configure a user on the source router with the `username tftp password tftp` command.
- C. Enable the TFTP server on the source router with the `tftp-server flash:<filename>` command.
- D. TFTP is not supported in recent IOS versions, so an alternative method must be used.
- E. Copy the file to the destination router with the `copy tftp: flash:` command.

Answer: C, E

QUESTION NO: 58

Which command allows traffic to load-balance in an MPLS Layer 3 VPN configuration?

- A. Multi-paths eibgp 2
- B. Maximum-paths ibgp 2
- C. Multi-paths 2
- D. Maximum-paths 2

Answer: B

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