

DUMPS ARENA

**CCNP Implementing Cisco IP Routing (ROUTE
v2.0)**

Cisco 300-101

Version Demo

Total Demo Questions: 10

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Topic Break Down

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Topic 1, Network Principles	13
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Topic 3, Layer 3 Technologies	34
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Total	856

QUESTION NO: 1

On which two types of interface is Frame Relay switching supported? (Choose two.)

- A. serial interfaces
- B. Ethernet interfaces
- C. fiber interfaces
- D. ISDN interfaces
- E. auxiliary interfaces

ANSWER: AD

Explanation:

QUESTION NO: 2

A network engineer is configuring a routed interface to forward broadcasts of UDP 69, 53, and 49 to 172.20.14.225. Which command should be applied to the configuration to allow this?

- A. router(config-if)#ip helper-address 172.20.14.225
- B. router(config-if)#udp helper-address 172.20.14.225
- C. router(config-if)#ip udp helper-address 172.20.14.225
- D. router(config-if)#ip helper-address 172.20.14.225 69 53 49

ANSWER: A

Explanation:

To let a router forward broadcast packet the command `ip helper-address` can be used. The broadcasts will be forwarded to the unicast address which is specified with the `ip helper` command.

`ip helper-address {ip address}`

When configuring the `ip helper-address` command, the following broadcast packets will be forwarded by the router by default:

- TFTP — UDP port 69
- Domain Name System (DNS) — UDP port 53
- Time service — port 37
- NetBIOS Name Server — port 137
- NetBIOS Datagram Server — port 138
- Bootstrap Protocol (BOOTP) — port 67
- TACACS — UDP port 49

QUESTION NO: 3

Refer to the exhibit. Why is the 140.140.0.0 network not used as the gateway of last resort even though it is configured first?

```
R3#show run | include default-  
ip default-network 140.140.0.0  
ip default-network 130.130.0.0
```

```
R3#show ip route | begin Gateway
```

```
Gateway of last resort is 0.0.0.0 to network 130.130.0.0  
116.0.0.0/8 is variably subnetted, 5 subnets, 3 masks  
C 116.16.37.0/30 is directly connected, Serial1/0.2  
C 116.16.32.0/30 is directly connected, Serial2/0.2  
C 116.16.34.0/28 is directly connected, Serial1/0.1  
C 116.16.35.0/28 is directly connected, Serial2/0.1  
S 116.0.0.0/8 [1/0] via 116.16.34.0  
* 140.140.0.0/32 is subnetted, 3 subnets  
O 140.140.1.1 [110/65] via 116.16.34.4, 00:14:54, Serial1/0.1  
O 140.140.3.1 [110/65] via 116.16.34.4, 00:14:54, Serial1/0.1  
O 140.140.2.1 [110/65] via 116.16.34.4, 00:14:54, Serial1/0.1  
* 130.130.0.0/16 is variably subnetted, 4 subnets, 2 masks  
D* 130.130.0.0/16 is a summary, 00:30:04, Null0  
C 130.130.1.0/24 is directly connected, Ethernet0/0  
C 130.130.2.0/24 is directly connected, Ethernet0/1  
C 130.130.3.0/24 is directly connected, Ethernet1/0  
D 150.150.0.0/16 [90/679936] via 116.16.35.5, 00:02:58, Serial2/0.1
```

- A. The last default-network statement will always be preferred.
- B. A route to the 140.140.0.0 network does not exist in the routing table.
- C. Default-network selection will always prefer the statement with the lowest IP address.
- D. A router will load balance across multiple default-networks; repeatedly issuing the show ip route command would show the gateway of last resort changing between the two networks.

ANSWER: B

Explanation:

In the routing table of R3, we can only see the route 130.130.0.0/16 is learned via EIGRP (marked with D) and is being chosen as the "Gateway of last resort".

The route to 140.140.0.0 is not present in the routing table so the command "ip default-network 140.140.0.0" has no effect.

Remember that a route must appear in the routing table (via static route or learned via a routing protocol before it can be set as "Gateway of last resort" by the "ip default-network" command.

QUESTION NO: 4

Which three functionalities are specific to stateful NAT64? (Choose three.)

- A. 1:N translation
- B. Conserves IPv4 address
- C. Uses address overloading, hence lacks in end-to-end address transparency
- D. No state or bindings created on the translation
- E. Requires IPv4-translatable IPv6 addresses assignment (mandatory requirement)
- F. Requires either manual or DHCPv6 based address assignment for IPv6 hosts

ANSWER: ABC

Explanation:

Stateless vs Stateful NAT64

Stateless NAT64	Stateful NAT64
1:1 translation	1:N translation
No conservation of IPv4 address	Conserves IPv4 address
Assures end-to-end address transparency and scalability	Uses address overloading, hence lacks in end-to-end address transparency
No state or bindings created on the translation	State or bindings are created on every unique translation
Requires IPv4-translatable IPv6 addresses assignment	No requirement on the nature of IPv6 address assignment
Requires either manual or DHCPv6 based address assignment for IPv6 hosts	Free to choose any mode of IPv6 address assignment viz. Manual, DHCPv6, SLAAC

QUESTION NO: 5

A network engineer configures two connected routers to run OSPF in Area 0; however, the routers fail to establish adjacency.

Which option is one of the caused for this issue?

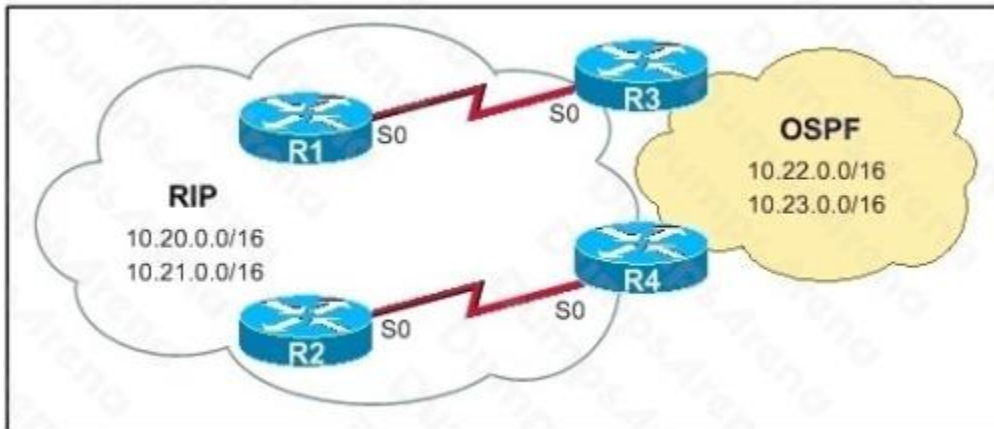
- A. Area numbers match.
- B. OSPF process numbers do not match on both neighbor routers.
- C. The Same MTU sizes are configured on both sides.
- D. The Same OSPF router IDs are configured on both routers.

ANSWER: D

Explanation:

QUESTION NO: 6

Refer to the exhibit.



R1 and R2 belong to the RIP routing domain that includes the networks 10.20.0.0/16 and 10.21.0.0/16.

R3 and R4 are performing two-way route redistribution between OSPF and RIP.

A network administrator has discovered that R2 is receiving OSPF routes for the networks 10.20.0.0/16 and 10.21.0.0/16 and a routing loop has occurred.

Which action will correct this problem?

- A. Apply an inbound ACL to the R2 serial interface.
- B. Change the RIP administrative distance on R3 to 110.
- C. Configure distribute-lists on R3 and R4.
- D. Set the OSPF default metric to 20.
- E. Change the OSPF administrative distance on R3 to 110.

ANSWER: C

Explanation:

Distribute List is Like an access-list, use to deny or permit the routing update to pass through a router/interface.

Distribute List allow you apply an access list to a routing updates.

It can be applied on in or out bond of an interface under a routing process. e.g in fig.

R1 want to send a routing update to it neighbor, this update will go through from interface S0/0, router will check, is there some Distribute List apply to this interface. If there is a Distribute List which would contain the allow route to pass through this interface.

QUESTION NO: 7

Which two statements are benefits of BGP peer groups? (Choose two.)

- A. Each neighbor in a peer group can have different inbound BGP policies.
- B. A configuration change can be applied simultaneously to all peers in the peer group.
- C. They use soft updates to minimize bandwidth consumption.
- D. They can optimize backdoor routes.
- E. They support groups of paths.
- F. They can be updated via multicast.

ANSWER: BC

Explanation:

QUESTION NO: 8

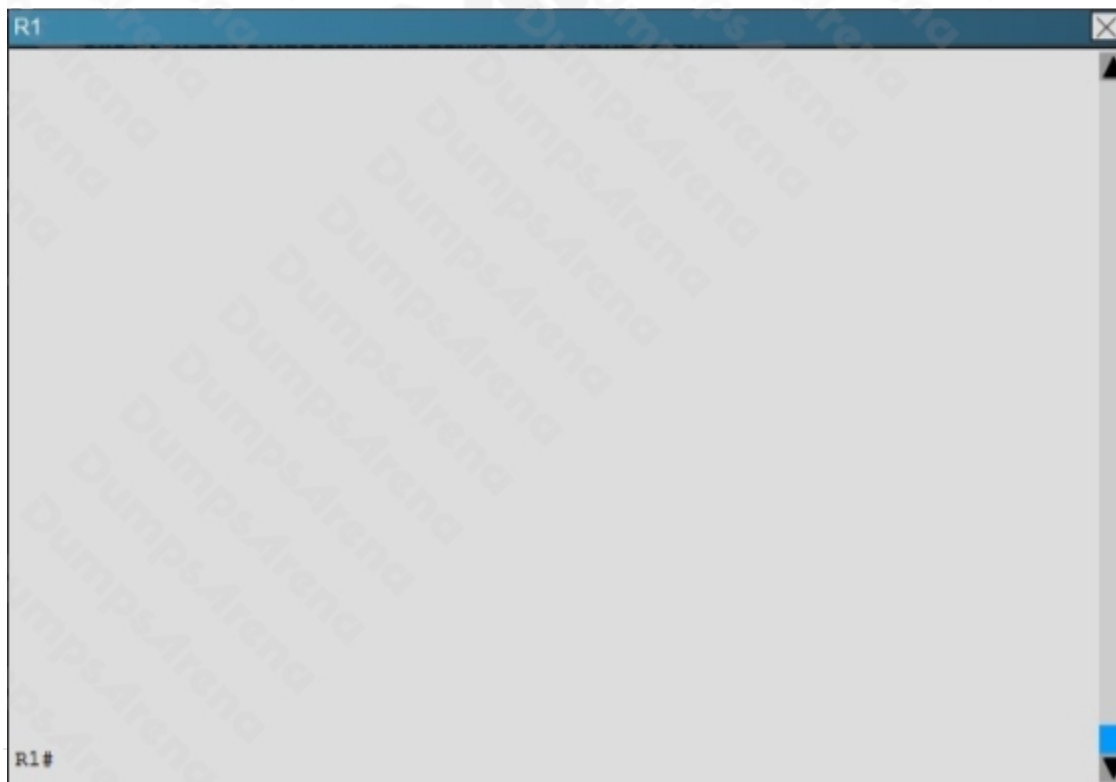
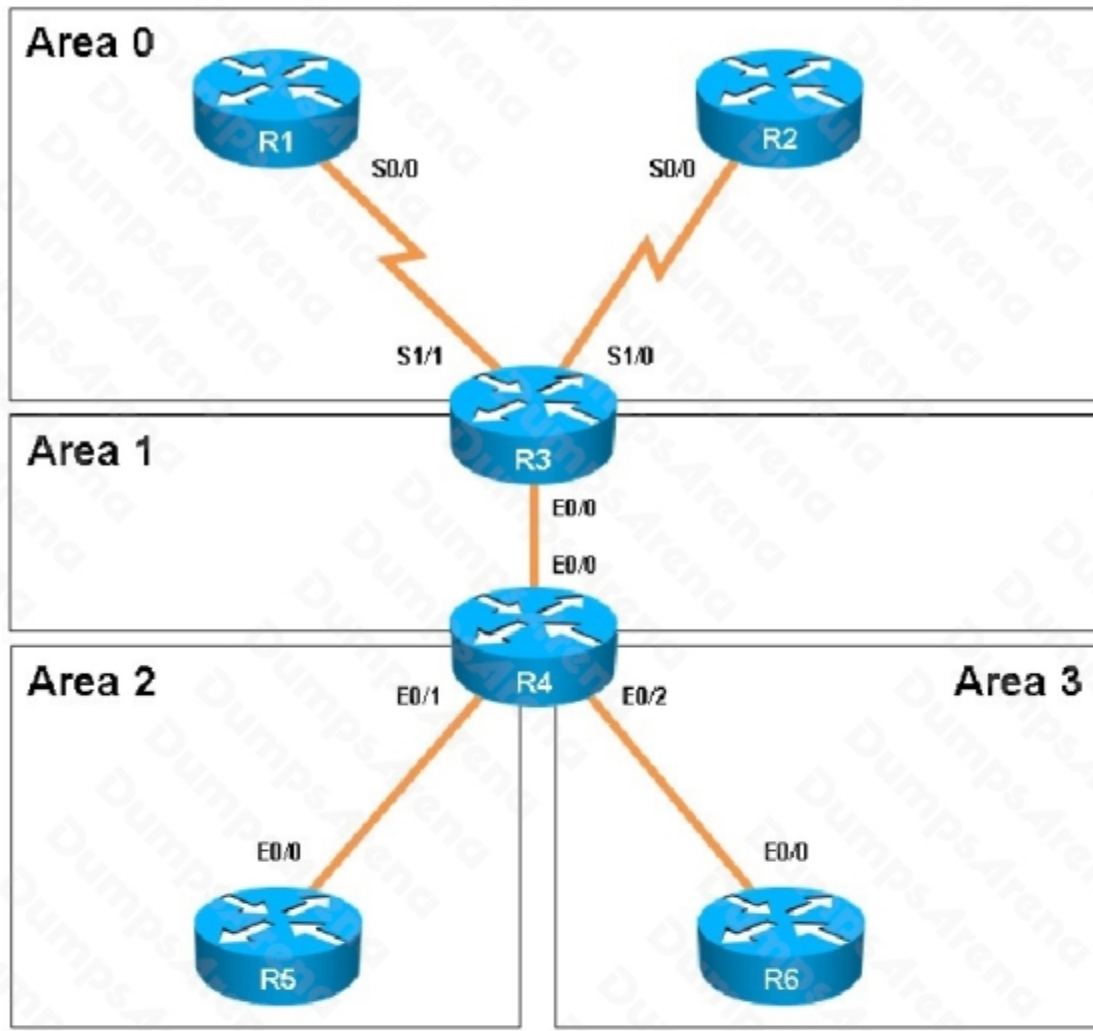
Scenario

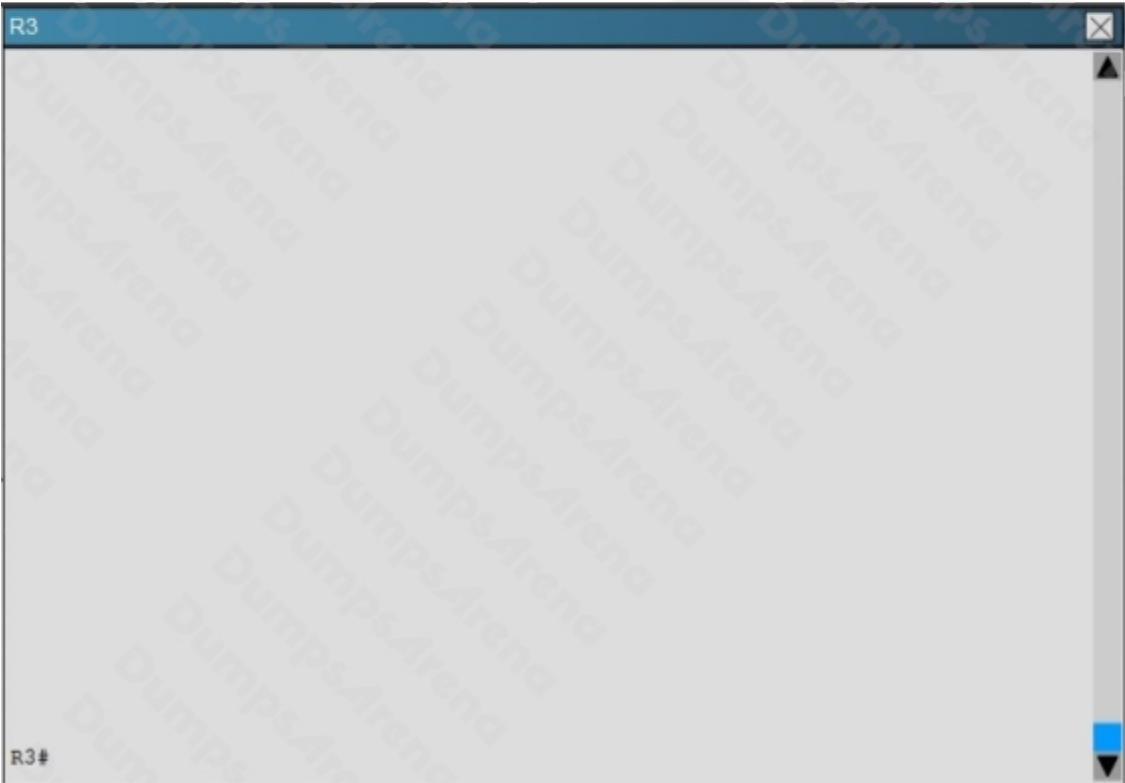
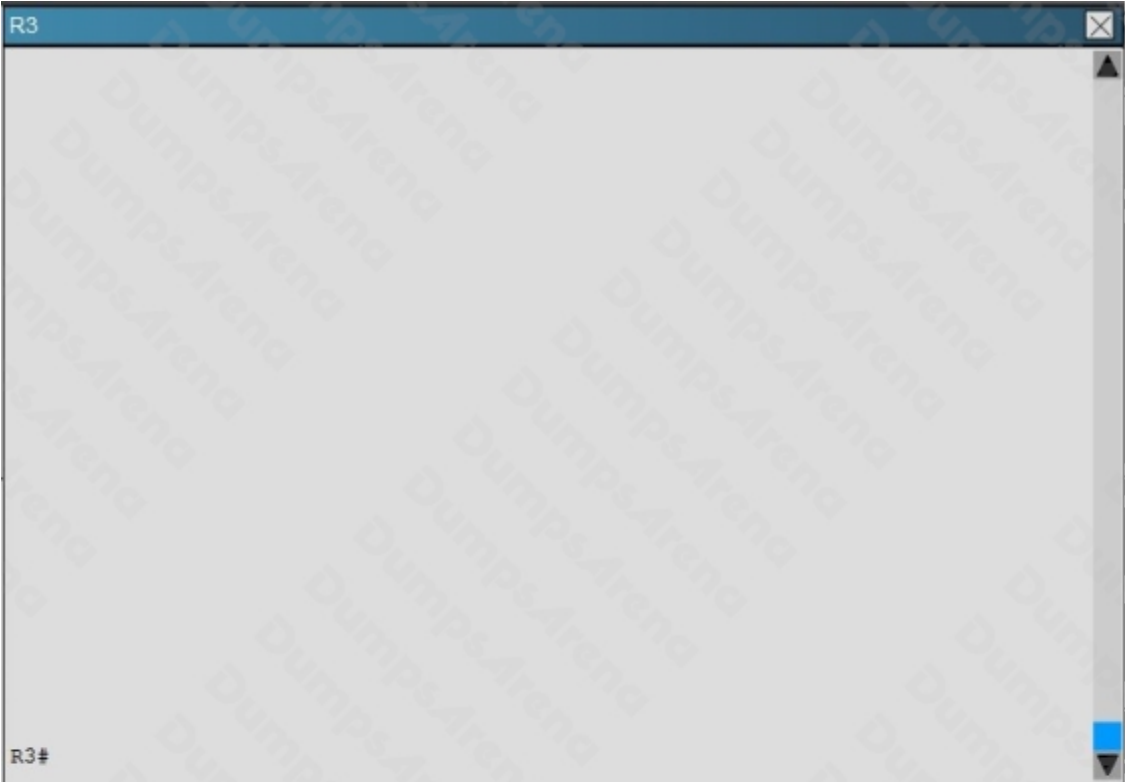
You have been asked to evaluate an OSPF network setup in a test lab and to answer questions a customer has about its operation. The customer has disabled your access to the show running-config command.

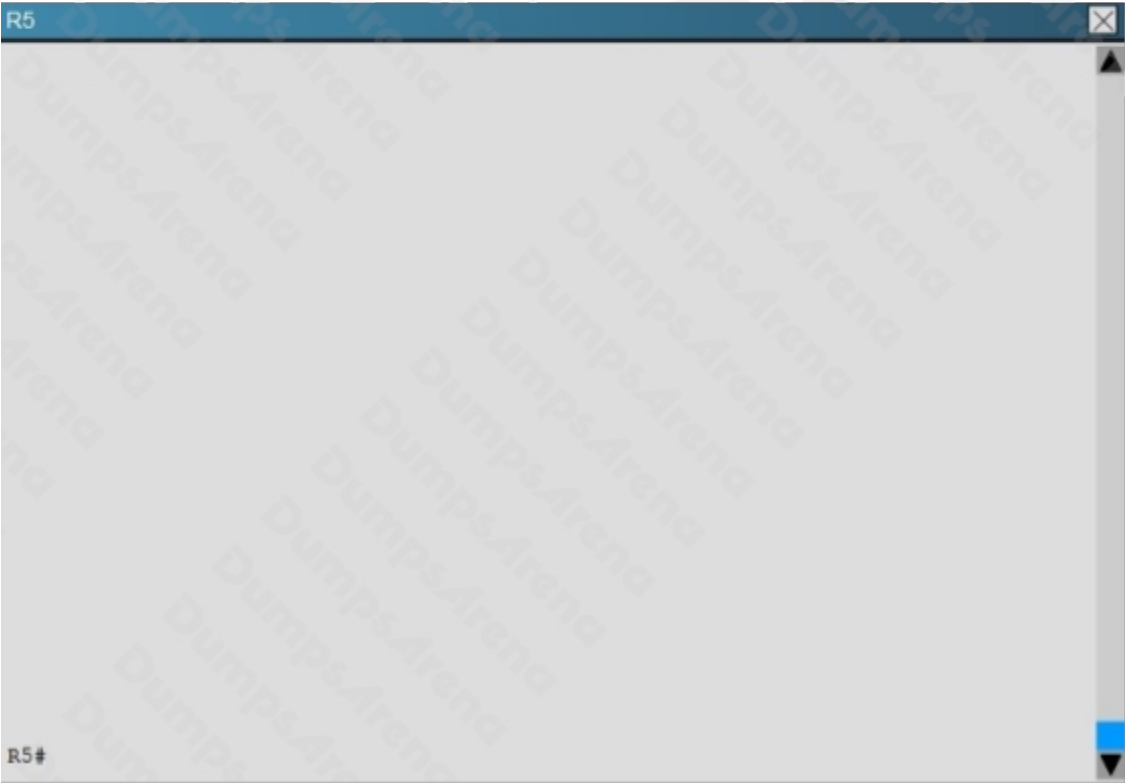
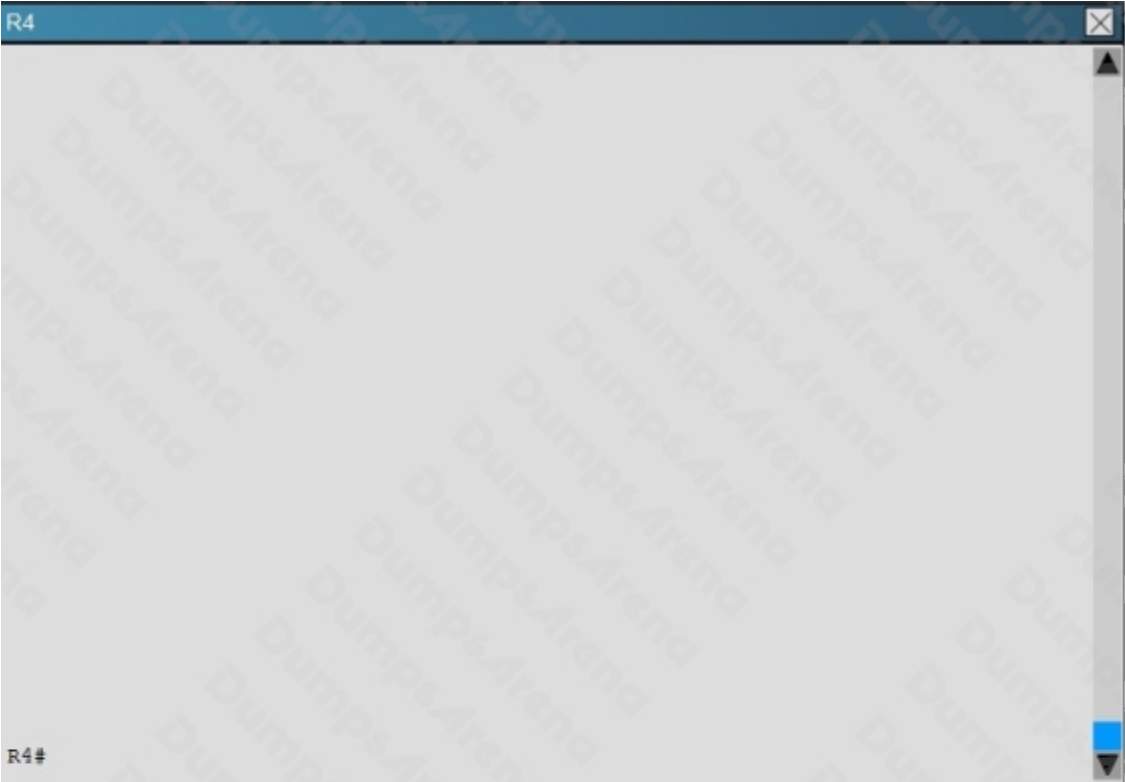
Instructions

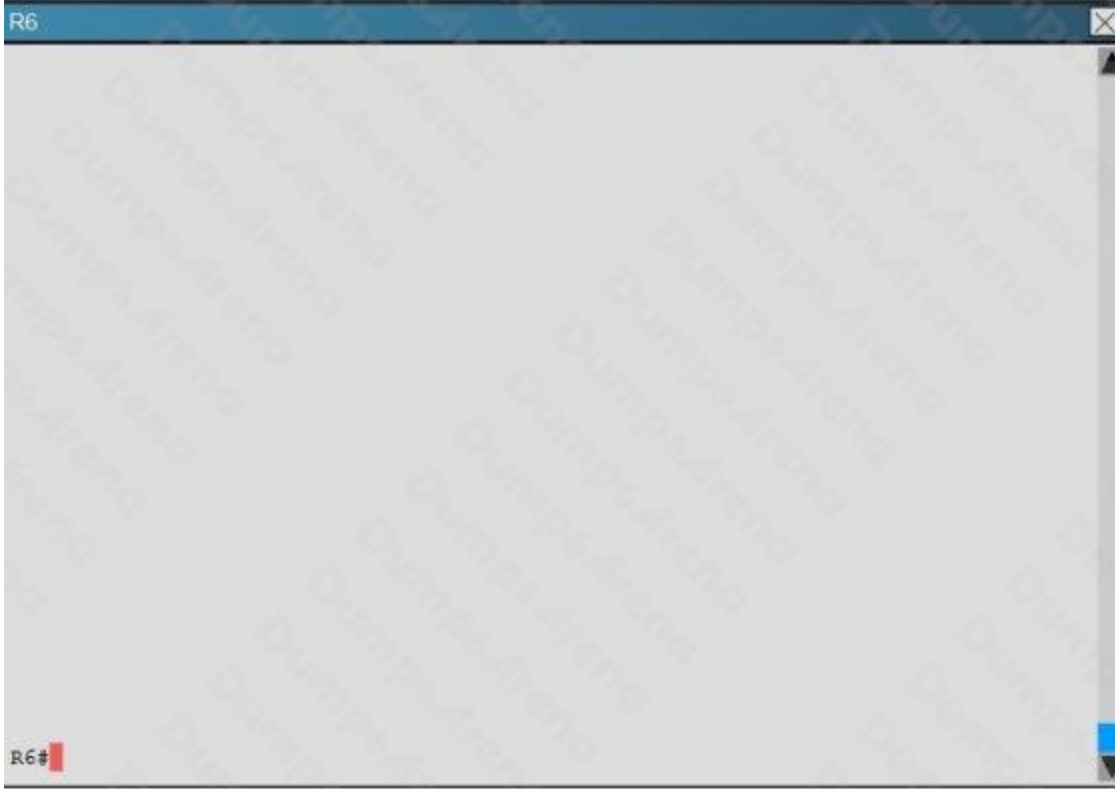
- Enter IOS commands on the device to verify network operation and answer for multiple-choice questions.
- THIS TASK DOES NOT REQUIRE DEVICE CONFIGURATION.
- Click on the icon or the lab at the bottom of the screen to gain access to the console for each device.
- No console or enable passwords are required.
- To access the multiple-choice questions, click on the numbered boxes on the left of the top panel.
- There are four multiple-choice questions with this task. Be sure to answer all four questions before selecting the Next button.

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Which of the following statements is true about the serial links that terminate in R3?

- A. The R1-R3 link needs the neighbor command for the adjacency to stay up
- B. The R2-R3 link OSPF timer values are 30, 120, 120
- C. The R1-R3 link OSPF timer values should be 10, 40, 40
- D. R3 is responsible for flooding LSUs to all the routers on the network

ANSWER: B

Explanation:

We can see the configured timers using the following command:

```
R3#show ip ospf interface serial 1/0
Serial1/0 is up, line protocol is up
Internet Address 192.168.13.3/24, Area 0, Attached via Network Statement
Process ID 100, Router ID 3.3.3.3, Network Type NON_BROADCAST, Cost: 1943
Topology-MTID      Cost      Disabled      Shutdown      Topology Name
      0              1943         no             no             Base
Transmit Delay is 1 sec, State DR, Priority 1
Designated Router (ID) 3.3.3.3, Interface address 192.168.13.3
Backup Designated router (ID) 1.1.1.1, Interface address 192.168.13.1
Timer intervals configured, Hello 30, Dead 120, Wait 120, Retransmit 5
  oob-resync timeout 120
  Hello due in 00:00:06
Supports Link-local Signaling (LLS)
Cisco NSF helper support enabled
IETF NSF helper support enabled
Index 2/3, flood queue length 0
Next 0x0(0)/0x0(0)
Last flood scan length is 2, maximum is 11
Last flood scan time is 0 msec, maximum is 0 msec
Neighbor Count is 1, Adjacent neighbor count is 1
  Adjacent with neighbor 1.1.1.1 (Backup Designated Router)
Suppress hello for 0 neighbor(s)
```

R3#

QUESTION NO: 9

Company has migrated to IPv6 in their network.

Which three IPv6 notations represent the same address? (Select three.)

- A. 2031::130F::9C0:876A:130B
- B. 2031:0000:130F:0000:0000:09C0:876A:130B
- C. 2031:0:130F:::9C0:876A:130B
- D. 2031::130F:0::9C0:876A:130B
- E. 2031:0:130F:0:0:09C0:876A:130B
- F. 2031:0:130F::9C0:876A:130B

ANSWER: BEF

Explanation:

With IP version 6, octets containing all zero's can be simply represented as :, while consecutive zero fields can be represented as ::.

ANSWER choices E and F are simply the shorthand version of the fully written IPv6 address shown in choice.

QUESTION NO: 10

Which two OSPF area types filter type 4 and type 5 LSAs? (Choose two.)

- A. Level 2
- B. not-so-stubby
- C. totally stubby
- D. level 1
- E. stub
- F. Level1 – Level2

ANSWER: CE

Explanation: