

# DUMPSQUEEN

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

Cisco 300-101

Version Demo

Total Demo Questions: 20

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## Topic Break Down

<b>Topic</b>	<b>No. of Questions</b>
<b>Topic 1, Network Principles</b>	<b>13</b>
<b>Topic 2, Layer 2 Technologies</b>	<b>8</b>
<b>Topic 3, Layer 3 Technologies</b>	<b>34</b>
<b>Topic 4, VPN Technologies</b>	<b>8</b>
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<b>Total</b>	<b>855</b>

## QUESTION NO: 1

By default, what is the maximum number of equal-metric paths that BGP uses for load balancing?

- A. 1
- B. 2
- C. 4
- D. 6

**ANSWER: A**

### Explanation:

By default, BGP chooses one best path among the possible equal-cost paths that are learned from one AS. However, you can change the maximum number of parallel equal-cost paths that are allowed. In order to make this change, include the maximum-paths paths command under the BGP configuration. Use a number between 1 and 6 for the paths argument.

## QUESTION NO: 2

Which routing protocol will continue to receive and process routing updates from neighbors after the passive interface router configuration command is entered?

- A. EIGRP
- B. RIP
- C. OSPF
- D. IS-IS

**ANSWER: B**

## QUESTION NO: 3 - (DRAG DROP)

DRAG DROP

**Select and Place:**

Header field name	Answer Area
	Function
Area ID	Identifies the source of the packet.
Checksum	Identifies the area to which the packer belongs.
Router ID	Contains the authentication type. All OSPF protocol exchanges are authenticated.
Data	Checks contents of the entire packet for any damage suffered during transmission.
Authentication	Contains authentication information.
Authentication type	Contains encapsulated upper-layer information.

**ANSWER:**

## Answer Area

Header field name	Function
	Router ID
	Area ID
	Authentication type
	Checksum
	Authentication
	Data

**QUESTION NO: 4**

Which two GRE features can you configure to prevent fragmentation? (Choose two.)

- A. TCP MSS
- B. DF Bit Clear
- C. IP MTU
- D. PMTUD
- E. MTU ignore
- F. UDP windows sizes

**ANSWER: A D**

**Explanation:**

Reference: <https://www.cisco.com/c/en/us/support/docs/ip/generic-routing-encapsulation-gre/25885-pmtud-ipfrag.html>

## QUESTION NO: 5

Which routing protocol does DMVPN support? (Choose three.)

- A. ISIS
- B. RIP
- C. EIGRP
- D. OSPF
- E. BGP

**ANSWER: C D E**

## QUESTION NO: 6

What does stateful NAT64 do that stateless NAT64 does not do?

- A. Stateful NAT64 maintains bindings or session state while performing translation
- B. Stateful NAT64 maintains bindings of IPv4 to IPv6 link-local addresses
- C. Stateful NAT64 translates IPv4 to IPv6
- D. Stateful NAT64 translates IPv6 to IPv4

**ANSWER: A**

### Explanation:

Reference: [https://www.cisco.com/c/en/us/products/collateral/ios-nx-os-software/enterprise-ipv6-solution/white\\_paper\\_c11-676278.html](https://www.cisco.com/c/en/us/products/collateral/ios-nx-os-software/enterprise-ipv6-solution/white_paper_c11-676278.html)

## QUESTION NO: 7

A network engineer wants to monitor hop-by-hop response time on the network. Which IP SLA operation accomplishes this task?

- A. ICMP path jitter
- B. ICMP-echo
- C. ICMP path echo
- D. UDP-echo

**ANSWER: C**

## QUESTION NO: 8

Which of the below mentioned conditions form a neighbor relationship in EIGRP? (Choose three.)

- A. Hello or ACK received
- B. AS number match
- C. Hello timer match
- D. Identical metric (k values)
- E. Dead Timer Match

**ANSWER: A B D**

## QUESTION NO: 9

What happens when unicast flood protection is triggered on a VLAN?

- A. The VLAN is shut down
- B. Traffic on the VLAN is load-balanced across multiple links
- C. The VLAN is removed from the VLAN database
- D. Traffic on the VLAN is passed to another VLAN with lower load

**ANSWER: A**

## QUESTION NO: 10

Which two statements about VRF-Lite configurations are true? (Choose two.)

- A. They support IS-IS.
- B. Each customer has its own dedicated TCAM resources.
- C. Different customers can have overlapping IP addresses on different VPNs.
- D. They support the exchange of MPLS labels.
- E. They support a maximum of 512,000 routes.
- F. Each customer has its own private routing table.

**ANSWER: C F**

**Explanation:**

Reference: <https://www.cisco.com/c/en/us/td/docs/switches/lan/catalyst4500/12-2/25ew/configuration/guide/conf/vrf.pdf>

**QUESTION NO: 11**

Which two options are components of a dual stack? (Choose two.)

- A. Layer 2 switch
- B. IPv6 traffic
- C. OSPF
- D. Layer 3 switch
- E. IPv4 traffic
- F. EIGRP

**ANSWER: B E**

**QUESTION NO: 12**

Which two phases of DMVPN allow to spoke sites to create dynamic tunnels to one another? (Choose two.)

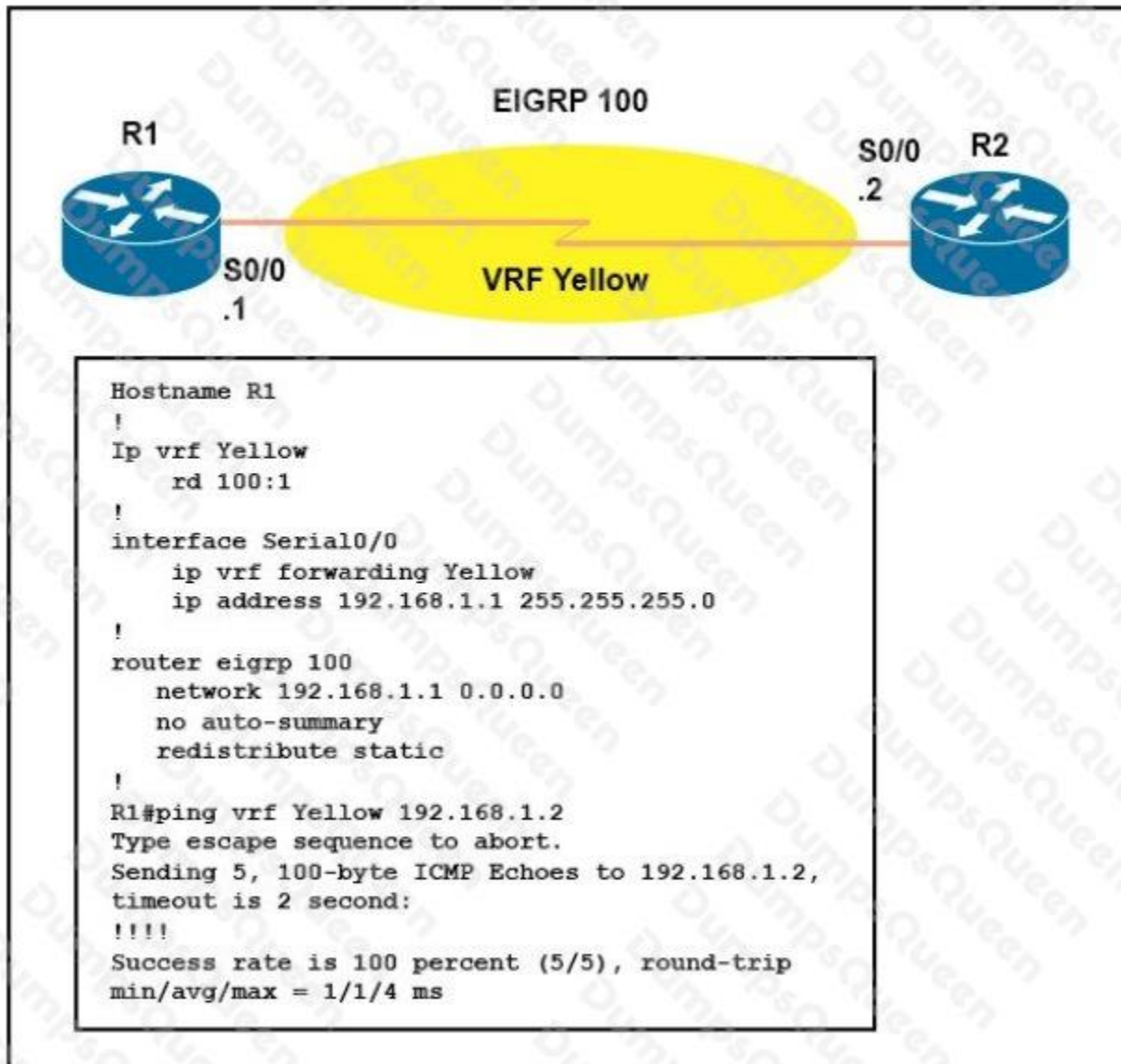
- A. Phase 1
- B. Phase 2
- C. Phase 3
- D. Phase 4
- E. Phase 5

**ANSWER: B C**

**QUESTION NO: 13**

Refer to the exhibit.





R1 is configured with VRF-Lite and can ping R2. R2 is fully configured, but it has no active EIGRP neighbors in vrf Yellow. If the configuration of r2 is complete, then which issue prevents the EIGRP 100 neighbor relationship in vrf Yellow from forming?

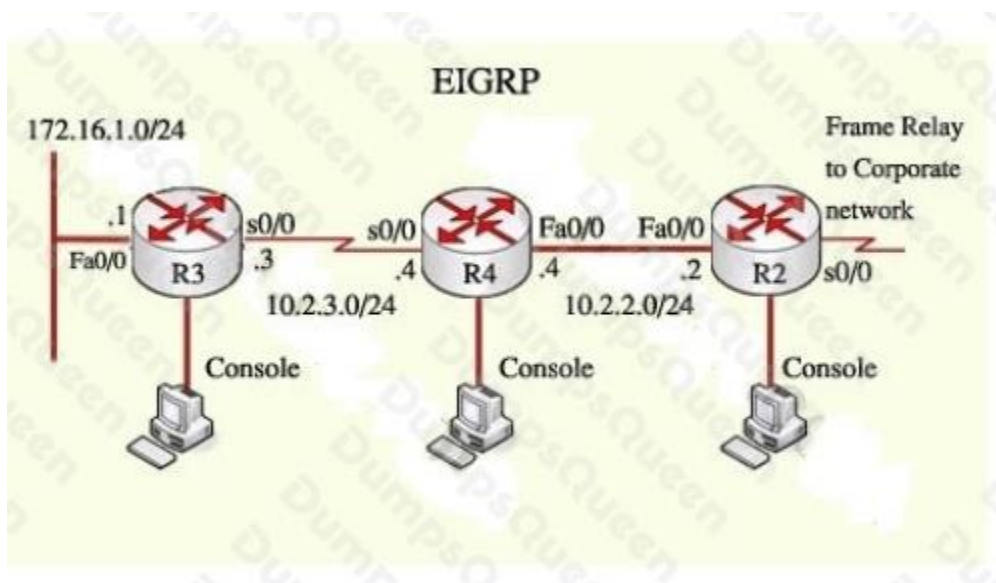
- A. The interface IP address are not in the same subnet.
- B. The no auto-summary command is preventing the EIGRP neighbor relationship from forming.
- C. EIGRP 100 network 192.168.1.0/24 is configured in the global routing table on R1.
- D. There is a Layer 1 issue that prevents the EIGRP neighbor relationship from forming.

**ANSWER: C**

## QUESTION NO: 14 - (SIMULATION)

## SIMULATION

## EIGRP Stub Sim



By increasing the first distant office, JS manufactures has extended their business. They configured the remote office router (R3) from which they can reach all Corporate subnets. In order to raise network stableness and lower the memory usage and broadband utilization to R3, JS manufactures makes use of route summarization together with the EIGRP Stub Routing feature. Another network engineer is responsible for the implementing of this solution. However, in the process of configuring EIGRP stub routing connectivity with the remote network devices off of R3 has been missing.

Presently JS has configured EIGRP on all routers in the network R2, R3, and R4. Your duty is to find and solve the connectivity failure problem with the remote office router R3. You should then configure route summarization only to the distant office router R3 to complete the task after the problem has been solved.

The success of pings from R4 to the R3 LAN interface proves that the fault has been corrected and the R3 IP routing table only contains two 10.0.0.0 subnets.

**ANSWER: See explanation below**

**Explanation:**

Notice that R3 is configured as a stub receive-only router. The receive-only keyword will restrict the router from sharing any of its routes with any other router in that EIGRP autonomous system. This keyword will also prevent any type of route from being sent. Therefore, we will remove this command and replace it with the eigrp stub command:

```
R3#configure terminal
```

```
R3(config)#router eigrp 123
```

```
R3(config-router)#no eigrp stub receive-only
```

```
R3(config-router)#eigrp stub
```

```
R3(config-router)#end
```

Because we want the routing table of R3 only have 2 subnets so we have to summary sub-networks at the interface which is connected with R3, the s0/0 interface of R4.

```
R4>enable
```

```
R4#configure terminal
```

```
R4(config)#interface s0/0
```

```
R4(config-if)#ip summary-address eigrp 123 10.2.0.0 255.255.0.0
```

Now we jump back to R3 and use the show ip route command to verify the effect

But in your real exam, if you see the line "10.0.0.0/8 is a summary,....Null0" then you need to summary using the network 10.0.0.0/8 with the command "ip summary-address eigrp 123 10.0.0.0 255.0.0.0" . This configuration is less optimize than the first but it summaries into 2 subnets as the question requires (maybe you will not see this case, don't worry!).

## QUESTION NO: 15 - (DRAG DROP)

DRAG DROP

Drag and drop the steps in the NAT process for IPv4-initiated packets from the left into the correct sequence on the right.

Select and Place:

### Answer Area

The packet is routed to an NVI.

The packet is assigned a dynamic or static binding.

The IPv4 source address is translated to IPv6.

The translation information is used to create a session.

ANSWER:

## Answer Area

The packet is routed to an NVI.

The packet is assigned a dynamic or static binding.

The IPv4 source address is translated to IPv6.

The translation information is used to create a session.

### Explanation:

Reference:

[https://www.cisco.com/c/en/us/td/docs/ios-xml/ios/ipaddr\\_nat/configuration/xr-2/nat-xr-2-book/iadnat-stateful-nat64.html](https://www.cisco.com/c/en/us/td/docs/ios-xml/ios/ipaddr_nat/configuration/xr-2/nat-xr-2-book/iadnat-stateful-nat64.html)

## QUESTION NO: 16

What would you configure on SNMPv3 to allow authentication and encryption?

- A. authpriv
- B. authnopriv
- C. noauthnopriv
- D. authmember

## ANSWER: B

### Explanation:

The SNMPv3 Agent supports the following set of security levels:

+ NoAuthNoPriv: Communication without authentication and privacy.

+ AuthNoPriv: Communication with authentication and without privacy. The protocols used for Authentication are MD5 and SHA (Secure Hash Algorithm).

+ AuthPriv: Communication with authentication and privacy. The protocols used for Authentication are MD5 and SHA ; and for Privacy, DES (Data Encryption Standard) and AES (Advanced Encryption Standard) protocols can be used. For Privacy Support, you have to install some third-party privacy packages

## QUESTION NO: 17

Which two EIGRP packet types are transmitted unreliably? (Choose two.)

- A. queries
- B. updates
- C. replies
- D. requests
- E. hellos

**ANSWER: D E**

## QUESTION NO: 18

If you want to migrate an IS-IS network to another routing protocol with \_\_\_\_\_. (Choose two)

- A. UDP
- B. Internal BGP
- C. TCP/IP
- D. EIGRP
- E. OSPF
- F. RIP

**ANSWER: D E**

## QUESTION NO: 19

What is the role of a route distinguisher in a VRF-Lite setup implementation?

- A. It manages the import and export of routes between two or more VRF instances.
- B. It enables multicast distribution for VRF-Lite setups to enhance EGP routing protocol capabilities.
- C. It extends the IP address to identify which VRF instance it belongs to.
- D. It enables multicast distribution for VRF-Lite setups to enhance IGP routing protocol capabilities.

**ANSWER: C**

## QUESTION NO: 20

How is authentication handled with OSPFv3? Select the best response.

- A. OSPFv3 for IPv6 authentication is supported by SHA-1 authentication.
- B. OSPFv3 for IPv6 authentication is supported by MD5 authentication.
- C. OSPFv3 for IPv6 authentication is supported by IPv6 IPsec.
- D. OSPFv3 for IPv6 authentication is supported by IPv4 IPsec.

**ANSWER: C**