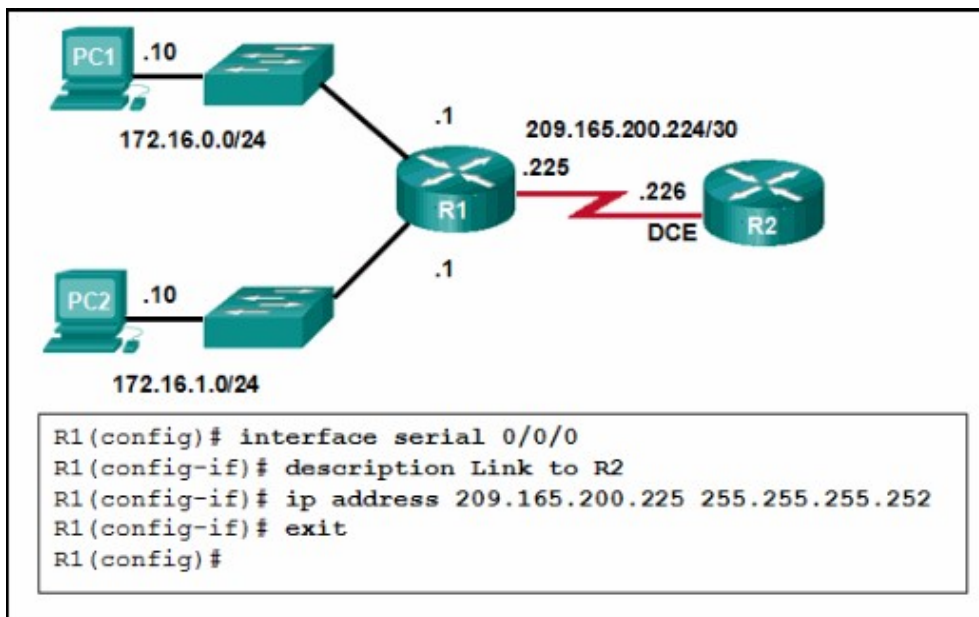


Routing and Switching Essentials (Version 6.00) - RSE 6.0 Chapter 1 Exam

Below is the feedback on items for which you did not receive full credit. Some interactive items may not display your response.

Subscore: Domain Knowledge - Standard Score ▼

7



Refer to the exhibit. A network administrator has configured R1 as shown. When the administrator checks the status of the serial interface, the interface is shown as being administratively down. What additional command must be entered on the serial interface of R1 to bring the interface up?

| Correct Response | Your Response |
|------------------|---------------|
|------------------|---------------|

- ☒ clockrate 128000
- ☐ IPv6 enable
- ☒ no shutdown
- ☐ end

By default all router interfaces are shut down. To bring the interfaces up, an administrator must issue the **no shutdown** command in interface mode.



This item references content from the following areas:

Routing and Switching Essentials

1.1.3 Router Basic Settings

10 Which two items are used by a host device when performing an ANDing operation to determine if a destination address is on the same local network? (Choose two.)

| Correct Response | Your Response |
|---------------------|------------------|
|---------------------|------------------|

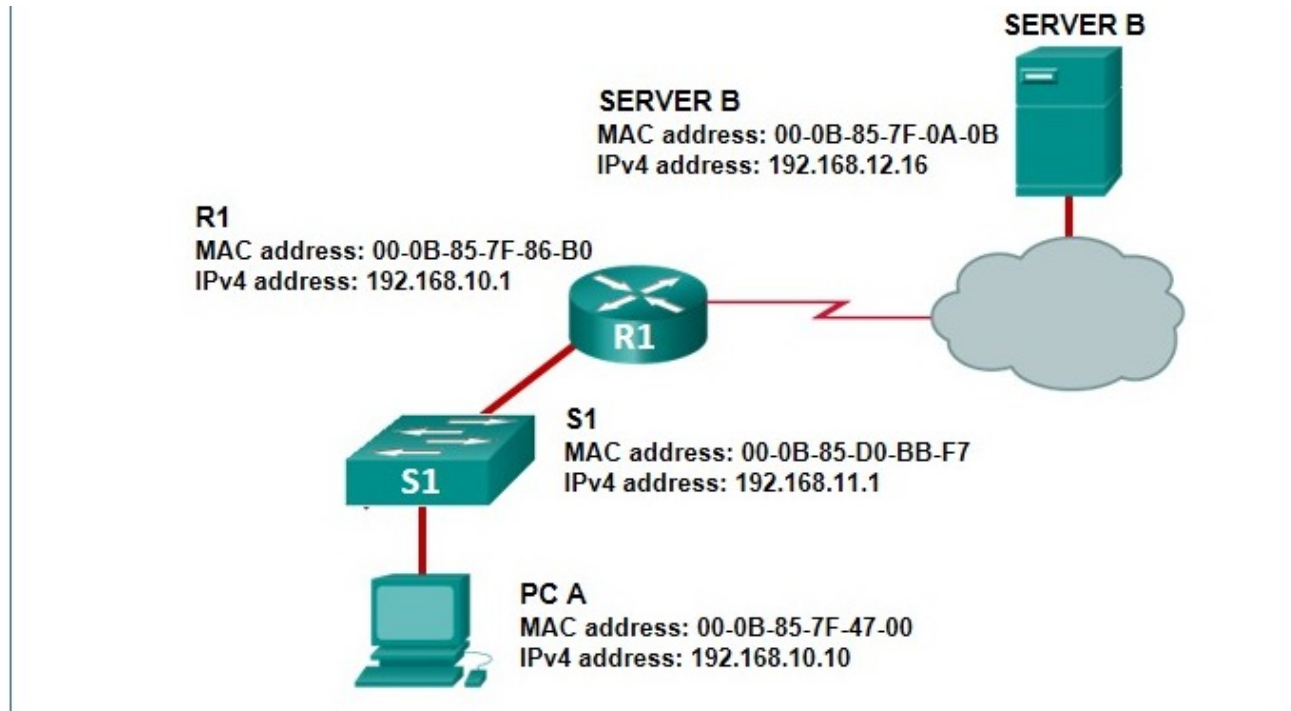
- | | |
|---|---|
| <input checked="" type="checkbox"/> | destination MAC address |
|  | <input type="checkbox"/> destination IP address |
| | <input type="checkbox"/> network number |
|  | <input checked="" type="checkbox"/> subnet mask |
| | <input type="checkbox"/> source MAC address |

The result of ANDing any IP address with a subnet mask is a network number. If the source network number is the same as the destination network number, the data stays on the local network. If the destination network number is different, the packet is sent to the default gateway (the router that will send the packet onward toward the destination network).

This item references content from the following areas:

Routing and Switching Essentials

1.2.1 Switching Packets Between Networks



Refer to the exhibit. PC A sends a request to Server B. What IPv4 address is used in the destination field in the packet as the packet leaves PC A?

Correct Response Your Response

- ☐ 192.168.10.10
- ☒ 192.168.12.16
- ☐ 192.168.11.1
- ☐ 192.168.10.1

The destination IP address in packets does not change along the path between the source and destination.

This item references content from the following areas:

Routing and Switching Essentials

1.2.1 Switching Packets Between Networks

18 Consider the following routing table entry for R1:

D 10.1.1.0/24 [90/2170112] via 209.165.200.226, 00:00:05, Serial0/0/0

What is the significance of the Serial0/0/0?

Correct Response **Your Response**

- ✓ ☐ It is the interface on R1 used to send data that is destined for 10.1.1.0/24.
- ☐ It is the interface on the final destination router that is directly connected to the 10.1.1.0/24 network.
- ☒ It is the R1 interface through which the EIGRP update was learned.
- ☐ It is the interface on the next-hop router when the destination IP address is on the 10.1.1.0/24 network.

The Serial0/0/0 indicates the outgoing interface on R1 that is used to send packets for the 10.1.1.0/24 destination network.

This item references content from the following areas:

Routing and Switching Essentials

1.3.1 Analyze the Routing Table

19

```
R1# show ipv6 route
<output omitted>

C   2001:DB8:ACAD:2::/64 [0/0]
    via ::, FastEthernet0/0
L   2001:DB8:ACAD:2::54/128 [0/0]
    via ::, FastEthernet0/0
C   2001:DB8:ACAD:A::/64 [0/0]
    via ::, FastEthernet0/1
L   2001:DB8:ACAD:A::12/128 [0/0]
    via ::, FastEthernet0/1
L   FF00::/8 [0/0]
    via ::, Null0
R1#
```

Refer to the exhibit. A network administrator issues the show ipv6 route

| Correct Response | Your Response |
|---------------------|------------------|
|---------------------|------------------|

- | | | |
|-------------------------------------|-------------------------------------|--|
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | Packets that are destined for the network 2001:DB8:ACAD:2::54/128 will be forwarded through Fa0/0. |
| <input type="checkbox"/> | <input type="checkbox"/> | Packets that are destined for the network 2001:DB8:ACAD:2::/64 will be forwarded through Fa0/1. |
| <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | The interface Fa0/1 is configured with IPv6 address 2001:DB8:ACAD:A::12. |
| <input type="checkbox"/> | <input type="checkbox"/> | The network FF00::/8 is installed through a static route command. |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | R1 does not know a route to any remote networks. |

From the routing table, R1 knows two directly connected networks and the multicast network (FF00::/8). It does not know any routes to remote networks. The entry 2001:DB8:ACAD:A::12/128 is the local host interface route.

This item references content from the following areas:

Routing and Switching Essentials

1.3.2 Directly Connected Routes

23 What is the effect of configuring the ipv6 unicast-routing command on a router?

| Correct Response | Your Response |
|---------------------|------------------|
|---------------------|------------------|

- | | | |
|----------------------------------|----------------------------------|--|
| <input type="radio"/> | <input type="radio"/> | to assign the router to the all-nodes multicast group |
| <input type="radio"/> | <input type="radio"/> | to prevent the router from joining the all-routers multicast group |
| <input checked="" type="radio"/> | <input checked="" type="radio"/> | to permit only unicast packets on the router |
| <input checked="" type="radio"/> | <input type="radio"/> | to enable the router as an IPv6 router |

When the **ipv6 unicast-routing** command is implemented on a router, it enables the router as an IPv6 router. Use of this command also assigns the router to the all-routers multicast group.

This item references content from the following areas:

24

```
R3# show ip route

<output omitted>

 172.16.0.0/24 is subnetted, 3 subnets
C 172.16.0.0 is directly connected, Serial0/1/0
D 172.16.1.0 [90/21024000] via 172.16.0.1, 00:22:15, Serial0/1/0
C 172.16.2.0 is directly connected, Serial0/1/1
 10.0.0.0/24 is subnetted, 1 subnets
S 10.2.0.0 [1/0] via 172.16.2.2
C 10.3.0.0 is directly connected, FastEthernet0/0
```

Question as presented:

Refer to the exhibit. Match the description with the routing table entries. (Not all options are used.)

route source protocol

destination network

metric

administrative distance

next hop

route timestamp

172.16.2.2

10.3.0.0



This item references content from the following areas:

1.3.1 Analyze the Routing Table

Your response:

destination network

metric

3

1



administrative distance

00:22:15



route timestamp

D



route source protocol

C



next hop



