CCNA2 Chapter 2 Practice

What output would you expect from show interface serial 0/0 if the administrator forgot to give the no shutdown command?

- Serial0/0 is up, line protocol is up
- Serial0/0 is down, line protocol is down
- Serial0/0 is up, line protocol is down
- **Serial0/0 is administratively down, line protocol is down**
- Serial0/0 is down, line protocol is up

What output would you expect from show interface serial 0/0 if the serial cable is faulty?

- Serial0/0 is up, line protocol is up
- **Serial0/0 is down, line protocol is down**
- Serial0/0 is up, line protocol is down
- Serial0/0 is administratively down, line protocol is down
- Serial0/0 is down, line protocol is up

What output would you expect from show interface serial 0/0 if the serial cable has been connected the wrong way round?

- Serial0/0 is up, line protocol is up
- Serial0/0 is down, line protocol is down
- **Serial0/0 is up, line protocol is down**
- Serial0/0 is administratively down, line protocol is down
- Serial0/0 is down, line protocol is up

What output would you expect from show interface serial 0/0 if the serial interface on the router at the other end has not been configured?

- Serial0/0 is up, line protocol is up
- **Serial0/0 is down, line protocol is down**
- Serial0/0 is up, line protocol is down
- Serial0/0 is administratively down, line protocol is down
- Serial0/0 is down, line protocol is up

What output would you never expect from show interface serial 0/0?

- Serial0/0 is up, line protocol is up
- Serial0/0 is down, line protocol is down
- Serial0/0 is up, line protocol is down
- Serial0/0 is administratively down, line protocol is down
- **Serial0/0 is down, line protocol is up**
When configuring a static route over a point to point link, why is it better to give the exit interface rather than the next hop IP address?

- Devices on a point to point link do not have IP addresses.
- The MAC address of the next hop router can be found more quickly.
- **There is less processing because the router only needs to check the routing table once.**
- There is less processing because the router does not need to check the routing table.

When is it better to configure a static route by giving a next hop address rather than an exit interface?

- **When the next hop is on a multi-access network**
- When the next hop is on a WAN link running the PPP protocol
- When the next hop is on a WAN link running the HDLC protocol
- When the next hop is on a serial cable and the router is at the DCE end.

What is recursive lookup?

- **The router has to check through the routing table more than once in order to find a route to a destination.**
- The router makes use of every entry in the routing table before finding a route to a network.
- The router checks the routing table repeatedly but does not find a route to a network.
- The router checks the routing table but does not find the destination network, so it uses the default route.

What type of route has an administrative distance of 1 by default?

- A default route
- **A static route**
- A RIP route
- A directly connected route

A route in the routing table is marked with *. What kind of route is this?

- **A default route**
- A static route
- A dynamic route
- A directly connected route

What command could you give in order to find the model of a directly connected Cisco router?

- Show ip route
- Show ip neighbors
- **Show cdp neighbors**
- Show ip interface detail

The RIP routing protocol has found a route to network 192.168.7.0/24 through serial 0/0 but there is also a static route to the same network through serial 0/1. Which route will be preferred and placed in the routing table?

- The RIP route through serial 0/0
- **The static route through serial 0/1**
- Both routes will appear.
- Neither route will appear because there is a contradiction.

The RIP routing protocol has found a route to network 192.168.7.0/24 through serial 0/0 but there is also a static route to the same network through serial 0/1. At first the static route appears in the routing table, but later the RIP route appears instead. What is most likely to have happened?

- The static route has timed out.
- The RIP route has been refreshed.
- **A link on the static route has gone down.**
- The metric has been recalculated.

What information can you find from **show controllers serial 0/1** that you would not find from **show interfaces serial 0/1**?

- The IP address of the interface
- Whether the line is up or down
- Whether the protocol is up or down
- **The type of cable used on the link**

Router A has a serial link to Router B. Router B has been configured with a clock rate of 64000. The cable has been connected with the DTE end connected to Router B. Which of the following would you expect?

- The line protocol will be down and the link will not work.
- Router A will display a prompt asking for the clock rate to be configured.
- **The show controllers command on router A will output “V.35 DCE cable, No clockrate”**
- The show controllers command on router B will output “No V.35 DCE cable”
Which configuration commands would enable the 195.18.1.0 network to communicate over the Internet?

- A(config)#ip route 195.18.1.0 255.255.255.0 serial 0/0
  ISP(config)#ip route 0.0.0.0 0.0.0.0 serial 0/0
- A(config)#ip route 0.0.0.0 0.0.0.0 serial 0/0
  ISP(config)#ip route 195.18.1.0 255.255.255.0 serial 0/0
- A(config)#ip route 195.18.1.0 255.255.255.0 195.18.2.1
  ISP(config)#ip route 0.0.0.0 0.0.0.0 195.18.2.2
- A(config)#ip route 0.0.0.0 0.0.0.0 195.18.2.2

Which would be the preferred command to give the 192.168.3.0 network a static route to the 192.168.5.0 network?

- A(config)#ip route 192.168.5.0 255.255.255.0 Fa 0/0
- A(config)#ip route 192.168.5.0 255.255.255.0 Fa 0/1
- A(config)#ip route 192.168.5.0 255.255.255.0 192.168.4.1
- A(config)#ip route 192.168.5.0 255.255.255.0 192.168.4.2

Routing has been configured as in the previous question. A host on network 192.168.3.0 pings a host on the 192.168.5.0 network, but the ping is unsuccessful. The routers can ping each other, and the hosts can both ping their local routers. Which is a possible cause of the problem?

- Router A does not have a route to 192.168.4.0.
- Router B does not have a route to 192.168.4.0.
- **Router B does not have a route to 192.168.3.0.**
- Router B does not have a route to 192.168.5.0.
Which address would best summarize networks 172.30.0.0/24 and 172.30.1.0/24?

- 172.30.0.0/22
- **172.30.0.0/23**
- 172.30.0.0/24
- 172.30.0.0/25

Which address would best summarize networks 172.30.4.0/24, 172.30.5.0/24, 172.30.6.0/24 and 172.30.7.0/24?

- 172.30.0.0/22
- 172.30.0.0/23
- **172.30.4.0/22**
- 172.30.4.0/23

Which address would best summarize networks 192.168.3.0/28, 192.168.3.16/28, 192.168.3.32/28 and 192.168.3.48/28?

- **192.168.3.0/26**
- 192.168.3.0/27
- 192.168.3.0/28
- 192.168.3.0/29

What is the purpose of a CSU/DSU device?

- It converts signals from the form required by the router to the form required on the service provider's network and vice versa.
- It converts digital signals from the phone line to the analogue signals used by the router.
- It allows a router to put a clocking signal on a synchronous serial line.
- It provides a table of routes to destinations on the Internet.

Which command will show the IP addresses of interfaces and whether they are up or down but without showing statistics of packets sent and received?

- Show interfaces
- Show ip interfaces
- **Show ip interface brief**
- Show controllers
What command would you give in order to display the following information?

C  192.168.2.0/24 is directly connected, Ethernet0/0
C  192.168.5.0/24 is directly connected, Serial0/0
R  192.168.3.0/24 [120/1] via 192.168.5.1, 00:00:03, Serial0/0
R  192.168.6.0/24 [120/2] via 192.168.5.1, 00:00:12, Serial 0/0

- `RouterA# show ip route`
- `RouterA# show ip interfaces`
- `RouterA# show routing table`
- `RouterA# show RIP routing`

What does the letter C signify at the start of an entry in the routing table?

- The route to the network was discovered using RIP
- The network was discovered using CSPF
- **The network is directly connected**
- The route to the network is closed

What is a static route?

- A route that does not often change with time
- **A route that is manually configured by an administrator**
- A route to a destination on a LAN
- A route that can be used if all other routes are unavailable

Which of the following are advantages of static routing over dynamic routing? (Choose 2)

- It automatically adapts to changed network topologies
- **It does not make demands on the processing power of the router**
- It is more secure because it does not reveal so much information about the network
- It does not have to be configured again manually if links are removed

Static routes are often created to stub networks. What is a stub network?

- **A network that is accessible only by one path**
- A network with a bus topology
- A network owned by one organisation
- A network that is not fully switched

Which of the following are correct ways of configuring a static route? (Choose 2)

- `Router (config)# static route 192.168.7.0 255.255.255.0 s0/1`
- `Router (config)# static route 192.168.7.0 255.255.255.0 192.168.4.1`
- `Router (config)# ip route 192.168.7.0 255.255.255.0 s0/1`
- `Router (config)# ip route 192.168.7.0 255.255.255.0 192.168.4.1`

What is the default administrative distance of a static route?

- 0
- 1
- 5
• 20
• 90
• 100
• 120

A static route is to be set up as a backup route to be used only if other routes are unavailable. How could this be done?
• Use the backup modifier command when setting the static route
• Use the outgoing interface and not the next hop address
• Set the administrative distance to 0
• **Set the administrative distance to 255**

What are the two main functions of a router? (Choose 2)
• **Path selection**
• Building an ARP table
• **Packet switching**
• Keeping a table of host names

Where does the router find the destination address that it needs in order to select the best path?
• In the frame header
• In the frame trailer
• **In the packet header**
• In the segment header
• In the data header

The `show ip route` command gives the following output.

```
C 192.168.2.0/24 is directly connected, Ethernet0/0
C 192.168.5.0/24 is directly connected, Serial0/0
C 192.168.1.0/24 is directly connected, Serial0/1
R 192.168.3.0/24 [120/1] via 192.168.5.1, 00:00:03, Serial0/0
R 192.168.6.0/24 [120/2] via 192.168.5.1, 00:00:12, Serial 0/0
S 192.168.4.0/24 [1/0] via 192.168.2.1
S* 0.0.0.0/0 is directly connected, Serial0/1
```

What routing table look-ups will be performed if a packet is addressed to 192.168.4.7?

• **Match with 192.168.4.0/24, then match with 192.168.2.0/24, exit by Ethernet 0/0**
• Match with 192.168.4.0/24, then match with default route, exit by Serial0/1
• Match with 192.168.4.0/24, exit by Serial0/0
• Match with 0.0.0.0/0, exit by Serial0/1