

1. Which of the following must be true for a static route to be installed in a router's IP routing table?
  - a. The outgoing interface associated with the route must be in an "up and up" state.
  - b. The router must receive a routing update from a neighboring router.
  - c. The **ip route** command must be added to the configuration.
  - d. The outgoing interface's **ip address** command must use the **special** keyword.
2. Which of the following commands correctly configures a static route?
  - a. **ip route 10.1.3.0 255.255.255.0 10.1.130.253**
  - b. **ip route 10.1.3.0 serial 0**
  - c. **ip route 10.1.3.0 /24 10.1.130.253**
  - d. **ip route 10.1.3.0 /24 serial 0**
3. Which of the following routing protocols are considered to use distance vector logic?
  - a. **RIP**
  - b. **IGRP**
  - c. EIGRP
  - d. OSPF
4. Which of the following routing protocols are considered to use link-state logic?
  - a. RIP
  - b. RIP-2
  - c. IGRP
  - d. EIGRP
  - e. **OSPF**
  - f. **Integrated IS-IS**
5. Which of the following routing protocols support VLSM?
  - a. RIP
  - b. **RIP-2**
  - c. IGRP
  - d. **EIGRP**
  - e. **OSPF**
  - f. **Integrated IS-IS**

6. Which of the following routing protocols are considered to be capable of converging quickly?
  - a. RIP
  - b. RIP-2
  - c. IGRP
  - d. EIGRP
  - e. OSPF
  - f. Integrated IS-IS
  
7. Router1 has interfaces with addresses 9.1.1.1 and 10.1.1.1. Router2, connected to Router1 over a serial link, has interfaces with addresses 10.1.1.2 and 11.1.1.2. Which of the following commands would be part of a complete RIP Version 2 configuration on Router2, with which Router2 advertises out all interfaces, and about all routes?
  - a. **router rip**
  - b. **router rip 3**
  - c. **network 9.0.0.0**
  - d. **version 2**
  - e. **network 10.0.0.0**
  - f. **network 10.1.1.1**
  - g. **network 10.1.1.2**
  - h. **network 11.0.0.0**
  - i. **network 11.1.1.2**
  
8. Which of the following **network** commands, following a **router rip** command, would cause RIP to send updates out two interfaces whose IP addresses are 10.1.2.1 and 10.1.1.1, mask 255.255.255.0?
  - a. **network 10.0.0.0**
  - b. **network 10.1.1.0 10.1.2.0**
  - c. **network 10.1.1.1 10.1.2.1**
  - d. **network 10.1.0.0 255.255.0.0**
  - e. **network 10**
  - f. You cannot do this with only one **network** command.

9. What command(s) list(s) information identifying the neighboring routers that are sending routing information to a particular router?
- a. `show ip`
  - b. `show ip protocol`
  - c. `show ip routing-protocols`
  - d. `show ip route`
  - e. `show ip route neighbor`
  - f. `show ip route received`
10. Review the snippet from a `show ip route` command on a router:

```
R      10.1.2.0 [120/1] via 10.1.128.252, 00:00:13, Serial0/0/1
```

Which of the following statements are true regarding this output?

- a. The administrative distance is 1.
- b. The administrative distance is 120.
- c. The metric is 1.
- d. The metric is not listed.
- e. The router added this route to the routing table 13 seconds ago.
- f. The router must wait 13 seconds before advertising this route again.

**Table 15-1** “Do I Know This Already?” Foundation Topics Section-to-Question Mapping

Foundation Topics Section	Questions
VPN Fundamentals	1–2
IPsec VPNs	3–5
SSL VPNs	6

1. Which of the following terms refers to a VPN that uses the Internet to connect the sites of a single company, rather than using leased lines or Frame Relay?
  - a. Intranet VPN
  - b. Extranet VPN
  - c. Access VPN
  - d. Enterprise VPN
2. Which of the following are not considered to be desirable security goals for a site-to-site VPN?
  - a. Message integrity checks
  - b. Privacy (encryption)
  - c. Antivirus
  - d. Authentication
3. Which of the following functions could be performed by the IPsec IP Authentication Header?
  - a. Authentication
  - b. Encryption
  - c. Message integrity checks
  - d. Anti-reply

4. Which of the following is considered to be the best encryption protocol for providing privacy in an IPsec VPN as compared to the other answers?
  - a. AES
  - b. HMAC-MD5
  - c. HMAC-SHA-1
  - d. DES
  - e. 3DES
5. Which three of the following options would be the most commonly used options for newly purchased and installed VPN components today?
  - a. ASA
  - b. PIX firewall
  - c. VPN concentrator
  - d. Cisco router
  - e. Cisco VPN client
6. When using the Cisco Web VPN solution, with the client using a normal web browser without any special client software, which of the following are true?
  - a. The user creates a TCP connection to a Web VPN server using SSL.
  - b. If the user connects to a normal web server inside the enterprise, and that server only supports HTTP and not SSL, those packets pass over the Internet unencrypted.
  - c. The Web VPN server connects to internal web servers on behalf of the Web VPN client, translating between HTTP and SSL as need be.
  - d. The web VPN client cannot connect without at least thin-client SSL software installed on the client.

1. Which of the following is the most likely organization from which an enterprise could obtain an administrative assignment of a block of IPv6 global unicast IP addresses?
  - a. An ISP
  - b. ICANN
  - c. An RIR
  - d. Global unicast addresses are not administratively assigned by an outside organization.
2. Which of the following is the shortest valid abbreviation for FE80:0000:0000:0100:0000:0000:0123?
  - a. FE80::100::123
  - b. FE8::1::123
  - c. FE80::100:0:0:0:123:4567
  - d. FE80:0:0:100::123
3. Which of the following answers lists a multicast IPv6 address?
  - a. 2000::1:1234:5678:9ABC
  - b. FD80::1:1234:5678:9ABC
  - c. FE80::1:1234:5678:9ABC
  - d. FF80::1:1234:5678:9ABC
4. Which of the following answers list either a protocol or function that can be used by a host to dynamically learn its own IPv6 address?
  - a. Stateful DHCP
  - b. Stateless DHCP
  - c. Stateless autoconfiguration
  - d. Neighbor Discovery Protocol
5. Which of the following help allow an IPv6 host to learn the IP address of a default gateway on its subnet?
  - a. Stateful DHCP
  - b. Stateless RS
  - c. Stateless autoconfiguration
  - d. Neighbor Discovery Protocol

6. Which of the following are routing protocols that support IPv6?
  - a. **RIPng**
  - b. RIP-2
  - c. OSPFv2
  - d. OSPFv3
  - e. **OSPFv4**
  
7. In the following configuration, this router's Fa0/0 interface has a MAC address of 4444.4444.4444. Which of the following IPv6 addresses will the interface use?
 

```

ipv6 unicast-routing
ipv6 router rip tag1
interface FastEthernet0/0
  ipv6 address 3456::1/64
      
```

  - a. 3456::C444:44FF:FE44:4444
  - b. 3456::4444:44FF:FE44:4444
  - c. **3456::1**
  - d. FE80::1
  - e. **FE80::6444:44FF:FE44:4444**
  - f. FE80::4444:4444:4444
  
8. In the configuration text in the previous question, RIP was not working on interface Fa0/0. Which of the following configuration commands would enable RIP on Fa0/0?
  - a. **network 3456::/64**
  - b. **network 3456::/16**
  - c. **network 3456::1/128**
  - d. **ipv6 rip enable**
  - e. **ipv6 rip tag1 enable**
  
9. Which of the following IPv4-to-IPv6 transition methods allows an IPv4-only host to communicate with an IPv6-only host?
  - a. Dual-stack
  - b. 6to4 tunneling
  - c. ISATAP tunneling
  - d. **NAT-PT**