**Chapter 3 - Quiz**

1. What are two advantages of static routing over dynamic routing? (Choose two.)
2. Configuration is less error prone.
3. More secure because routers do not advertise routes.
4. Growing the network usually does not present a problem.
5. No computing overhead.
6. Administrator has less work maintaining the configuration
7. Match the routing protocol to its description.

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| 1. BGP | ⬄ | 1. Distance vector exterior routing protocol. |
| 1. EIGRP | ⬄ | 1. Cisco's advanced interior routing protocol. |
| 1. OSPF | ⬄ | 1. Link-state interior routing protocol. |
| 1. RIP | ⬄ | 1. Distance vector interior routing protocol. |
| 1. IGRP | ⬄ | 1. Cisco's distance vector interior routing protocol. |

1. Which statement best describes convergence on a network?
2. The amount of time required for routers to share administrative configuration changes, such as password changes, from one end of a network to the other end.
3. The time required for the routers in the network to update their routing tables after a topology change has occurred.
4. The time required for the routers in one autonomous system to learn routes to destinations in another autonomous system.
5. The time required for routers running disparate routing protocols to update their routing tables.
6. Which two parameters are used to calculate metrics? (Choose two.)
7. hop count
8. uptime
9. bandwidth
10. convergence time
11. administrative distance
12. Which routing protocol has the most trustworthy administrative distance by default?
13. EIGRP internal routes
14. IS-IS
15. OSPF
16. RIP v1
17. RIP v2
18. How many equal cost paths can a dynamic routing protocol use for load balancing by default?
19. 2
20. 3
21. 4
22. 6
23. Which command shows the administrative distance of routes?
24. R1# show interfaces
25. R1# show ip route
26. R1# show ip interfaces
27. R1# debug ip routing
28. When do directly connected networks appear in the routing table?
29. When they are included in a static route.
30. When they are used as an exit interface.
31. As soon as they are addressed as operational at Layer 2.
32. As soon as they are addressed and operational at Layer 3.
33. Always when a no shutdown command is issued.
34. Router1 is using the RIP v2 routing protocol and has multiple unequal paths to reach a destination network. How does Router1 determine which path is the best path to the destination network?
35. lowest metric
36. highest metric
37. lowest administrative distance
38. highest administrative distance
39. load balancing between up to four paths
40. Match the administrative distance to the corresponding routing protocol.

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| 1. eBGP | ⬄ | 20 |
| 1. EIGRP (Internal) | ⬄ | 90 |
| 1. OSPF | ⬄ | 110 |
| 1. IS-IS | ⬄ | 115 |
| 1. RIP | ⬄ | 120 |
| 1. EIGRP (External) | ⬄ | 170 |
|  |  | ~~5~~ |
|  |  | ~~100~~ |
|  |  | ~~200~~ |

1. Indicate whether the characteristic is related to classful or classless routing. Not all characteristics apply.
2. Does not support discontiguous networks (classful, classless, or neither) ⬄ Classful Routing
3. Supported by EIGRP, OSPF, and BGP (classful, classless, or neither) ⬄ Classless Routing
4. Sends subnet mask in its routing updates (classful, classless, or neither) ⬄ Classless Routing
5. Supports discontiguous networks (classful, classless, or neither) ⬄ Classless Routing
6. Supported by RIP version 1 and IGRP (classful, classless, or neither) ⬄ Classful Routing
7. Does not send the subnet mask in its routing updates ⬄ Classful Routing
8. Cisco proprietary (classful, classless, or neither) 🞬
9. Open standard (classful, classless, or neither) 🞬