**Chapter 9 - Quiz**

1. What is the purpose of the EIGRP PDM?
2. PDM is the Layer 4 protocol that EIGRP uses to share routing information.
3. PDM is the mechanism that EIGRP uses to ensure the availability of neighboring routers.
4. PDM is the algorithm engine used by EIGRP to create routing tables.
5. PDM provides modular support for Layer 3 protocols.
6. PDM is the distance to a destination as reported by a neighboring router.
7. Match the EIGRP terms and concepts with the correct descriptions by dragging the options on the left to the correct targets on the right. Not all options are used.

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| --- | --- | --- |
| 1. Routing table | ⬄ | 1. Contains the EIGRP routes to be used for packet forwarding |
| 1. Successor route | ⬄ | 1. The primary route to be used, selected by DUAL |
| 1. Neighbor table | ⬄ | 1. Most important EIGRP data source, lists adjacent routers |
| 1. Feasible successor route | ⬄ | 1. Backup path to a destination network |
| 1. Topology table | ⬄ | 1. Contains all learned routes to all destination networks |
| 1. Summary table | 🞬 |  |

1. What type of EIGRP packet is used to discover, verify, and rediscover neighboring routers?
2. acknowledgement
3. hello
4. query
5. reply
6. If an EIGRP route goes down and a feasible successor is not found in the topology table, how does DUAL flag the route that has failed?
7. recomputed
8. passive
9. active
10. down
11. unreachable
12. successor
13. Which three tables does a router running EIGRP maintain? (Choose three.)
14. DUAL table
15. feasible distance table
16. neighbor table
17. OSPF table
18. routing table
19. topology table
20. What is the purpose of the EIGRP neighbor and topology tables?
21. DUAL uses the neighbor and topology tables to build the routing table.
22. The neighbor table is sent to all neighboring routers, which use it to build topology tables.
23. The neighbor table is sent to all routers listed in the neighbor table.
24. DUAL uses the neighbor table to create the topology table.
25. The neighbor table is broadcast to neighbor routers, while the topology table is broadcast to all other routers.
26. Refer to the command output described below. What does the 255/255 value in the output represent?

A# **show interface Serial0/0**

Serial0/0 is up, line protocol is up (connected)

Hardware is HD64570

Internet address is 10/1/1/1/24

MTU 1500 bytes, BW 1544 Kbit, DLY 20000 usec, rely 255/255, load 1/255

-output omitted

1. number of times that the link was in operation during 255 polls
2. link failure rate over 255 seconds
3. probability that the link will continue to be operational
4. static value representing the normal reliability of an interface type
5. Match the DUAL term with the correct definition?

|  |  |  |
| --- | --- | --- |
| 1. Feasible successor | ⬄ | 1. visible backup path to a network |
| 1. Successor | ⬄ | 1. route that is used for packet forwarding and is the least-cost route |
| 1. Feasible distance | ⬄ | 1. lowest calculated metric to reach the destination network |
| 1. Topology table | ⬄ | 1. table that contains successors and feasible successors |
| 1. Routing table | ⬄ | 1. table that contains successors only |
| 1. Reported distance | 🞬 |  |

1. A network administrator is troubleshooting an EIGRP routing issue. What command shows the administrator all possible paths to destination?
2. show ip route
3. show ip eigrp topology active
4. show ip eigrp neighbors detail
5. show ip eigrp topology all-links
6. show ip eigrp topology summary
7. Refer to the command described output below. What reported distance is the feasible successor to network 192.168.1.0 advertising?

Router1# **show ip eigrp topology**

-output omitted-

P 192.168.10.0/24, 1 successors, FD is 3011840

via Summary (3011840/0), Null0

via Summary (41024000/2169856), Serial0/0/0

P 192.168.10.4/30, 1 successors, FD is 3523840

via 192.168.10.10 (3523840/2169856), Serial0/0/1

P 192.168.1.0/24, 1 successors, FD is 3014400

via 192.168.10.10 (3014400/28160), Serial0/0/1

via 172.16.3.1 (41026560/2172416), Serial0/0/0

1. 28160
2. 3014400
3. 2172416
4. 41026560