

CCIE R&S Core Knowledge Question(9)

1. SPF is scheduled to calculate the Shortest Path Tree when?. Highlight for answer: there is a change in the topology. 2. Which Cisco proprietary feature optimizes the maximum-age timer and tries to find an alternate path to the root when a root port or blocked interface on a switch receives inferior BPDUs from its designated switch? Highlight for answer: BackboneFast 3. r6#sh ip route 30.2.0.0 Routing entry for 30.2.0.0/16 Known via ?ospf 100?, distance 110, metric 20, type extern 2, forward metric 1 Last update from 155.1.146.4 on FastEthernet0/0, 00:29:54 ago Routing Descriptor Blocks: * 155.1.146.4, from 150.1.4.4, 00:29:54 ago, via FastEthernet0/0 Route metric is 20, traffic share count is 1 If we change the above route from an OSPF E2 to an OSPF E1 route, what will the route metric be? Highlight for answer: 21. E1 routes compute the OSPF metric ?end-to-end?, whereas E2 routes only compute the OSPF metric from the ASBR onwards. In the output above the ?forward metric? represents the metric to reach the ASBR. When the route is converted to an E1, the forward cost is added to the existing metric to form the E1 metric. 4. What characteristics define a flow? Highlight for answer: Packets with the same source IP address, destination IP address, source TCP or User Datagram Protocol (UDP) port, destination TCP or UDP port, and protocol belong to the same flow. 5. Name at least three of the four types of congestion management queueing offered in Cisco router QoS. Highlight for answer: FIFO (first-in, first-out), Weighted fair queueing (WFQ), Custom queueing (CQ), Priority queueing (PQ)