IPV6 Quick Notes

Points to Remember

➢ IPv6 unicast-routing command must be globally enabled on a Cisco router to support IPv6
➢ In IPv6,host can auto configure its address without the aid of a DHCP server
➢ OSPFv3 for IPv6 authentication is supported by IPv6 IPsec.
➢ Type 9 LSA means Intra-area prefix LSA
➢ An automatic 6to4 tunnel allows multiple IPv4 destinations compared to manually configured IPv6 in IPv4 tunnel
➢ 6to4 tunnels use IPv6 addresses that concatenate 2002::/16 with the 32-bit IPv4 address of the edge router, creating a 48-bit prefix.

To configure 6to4 tunneling on a dual-stack edge router
• Tunnel mode(6to4)
• IPv4 Tunnel Source
• 6to4 IPv6 address (within 2002::/16)

Two rules for compacting IPv6 addresses
• The leading zeroes in any 16-bit segment do not have to be written.
• Any single, continuous string of one or more 16-bit segments that consists of all zeroes can be represented with a double colon.

Differences between an IPv4 header and an IPv6 header
• An IPv4 header includes a checksum. However, an IPv6 header does not include one.
• An IPv6 header is simpler and more efficient than an IPv4 header.
• An IPv6 header has twice as many octets as an IPv4 header.

Two statements are true about using IPv4 and IPv6 simultaneously on a network segment
• Hosts can be configured to receive both IPv4 and IPv6 addresses via DHCP.

- IPv6 allows a host to create its own IPv6 address that will allow it to communicate to other devices on a network configured via DHCP. IPv4 does not provide a similar capability for hosts.

What is IPv6 router solicitation?
A request made by a node for the IP address of the local router

What does the command clear ipv6 ospf process accomplish?
The OSPF database is repopulated. Then the shortest path first (SPF) algorithm is performed.