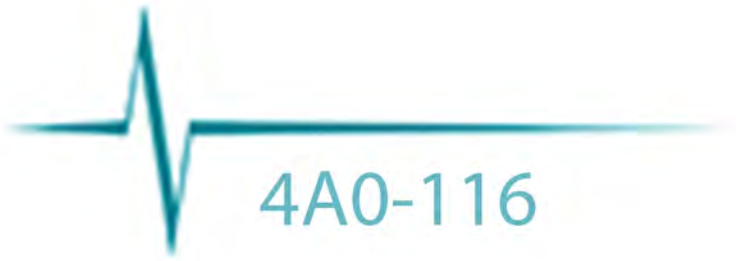
Practice Exam Questions

NOKIA



Nokia Segment Routing

EXAMKILLER

Help Pass Your Exam At First Try

Nokia

Exam 4A0-116

Nokia Segment Routing Exam

Version: 3.1

[Total Questions: 40]

Question No : 1

Which of the following is NOT an advantage of using a PCE for the computation of TE-constrained LSP paths, as compared to using CSPF locally on the PE router?

A. The ability to create cross-area TE-constrained LSP paths
B. The ability to create LSP paths with bandwidth reservation
C. The ability to create LSPs with primary and secondary paths
D. The ability to ensure that some LSP paths are disjoint

Answer: B

Explanation: PCE does not have the capability to reserve bandwidth, This is a function of a Resource Reservation Protocol (RSVP) or a Label Distribution Protocol (LDP) and is done locally on the PE.

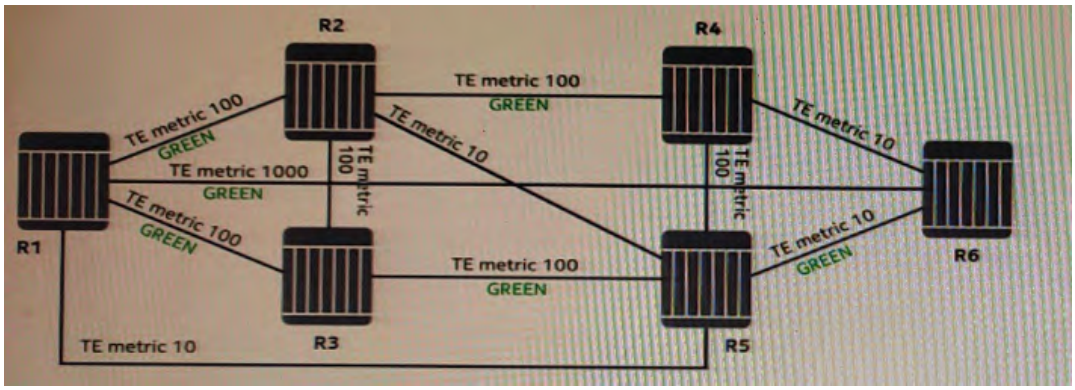
PCE can have advantages such as:

- The ability to create cross-area TE-constrained LSP paths
- The ability to create LSPs with primary and secondary paths
- The ability to ensure that some LSP paths are disjoint

it can be used to optimize the path computation by centralizing the path calculation and by taking into account a global view of the network.

Question No : 2

Examine the exhibit.



An LSP is being configured to start at R1and end at R6 using local CSPF. The LSP has the following constraints. Include admin-group GREEN, use the TE metric and hop-limit 3. What routers will be included in the LSP path?

A. R1, R2, R4, R6
B. R1, R5, R6
C. R1, R3, R5, R6
D. R1, R6

Answer: C

Question No : 3

Which of the following statements about the Path Computation Element (PCE) is FALSE?

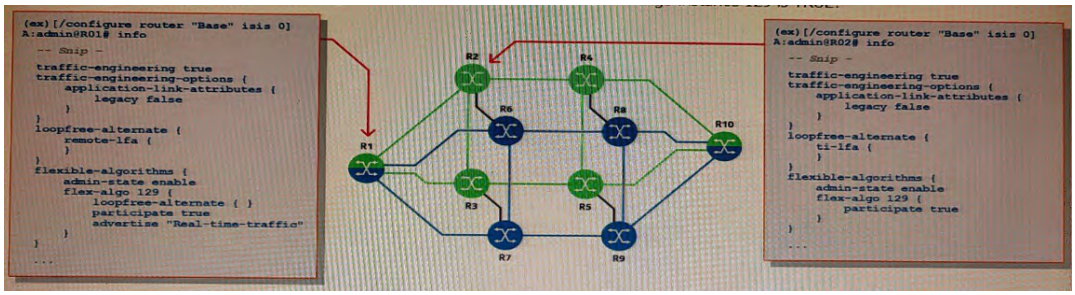
A. The PCE can obtain topology and traffic-engineering information from the network using either a link-state IGP or BGP-LS.
B. A stateful PCE proactively monitors all the existing LSPs and triggers the necessary repairs and re-optimizations.
C. A stateless PCE can calculate cross-area traffic-engineering-constrained LSP paths.
D. A stateful PCE can allow LSPs to reserve bandwidth.

Answer: D

Explanation: Stateful PCE can monitor the existing LSPs and trigger necessary repairs and re-optimizations, but it does not have the capability to reserve bandwidth.

Question No : 4

Based on the exhibit, which of the following statements about fast re-route for flex-algo instance 129 is TRUE?



A. Only standard LFA is enabled on router R1; fast re-route is not enabled on router R2.
B. Only standard LFA is enabled on both routers R1 and R2.
C. Standard LFA and remote-LFA are enabled on router R1; fast re-route is not enabled on router R2.
D. Standard LFA and remote-LFA are enabled on router R1; standard LFA and TT-LFA are enabled on router R2.

Answer: C

Question No : 5

Which of the following steps is NOT required when configuring IS-IS to support Segment Routing?

A. MPLS label range reserved for Segment Routing.
B. Enable interfaces used for Segment Routing under
C. The flooding scope of Segment Routing information.
D. The Segment Routing Global Block range.

Answer: B

Explanation: Enable interfaces used for Segment Routing under: This step is not required, enabling interfaces used for Segment Routing is not necessary as the IS-IS protocol already takes care of the flooding of the routing information.

Question No : 6

When OSPF is used to support Segment Routing, the first byte of the link-state ID associated with each of the opaque LSAs indicates the type of information being advertised. Which of the following associations between the first-byte value and its meaning is FALSE?

A. Value 1 - Traffic Engineering
B. Value 4 - Router Info
C. Value 7 - SRGB Range
D. Value 8 - Extended Link Info

Answer: D

Explanation: Value 8 - Extended Link Info: This statement is not true, value 8 is not used to indicate Extended Link Info. It is used for different types of information, such as Link-Local/Remote Identifiers (LLS/RLS) Identifiers and Node SID/Adj-SID.

Question No : 7

Which of the following types of information is considered by a stateless PCE when it processes a new LSP path calculation request?

A. The IGP link-state database
B. The traffic-engineering database
C. The operational state of existing LSP paths
D. The amount of bandwidth reserved for each of the existing LSP paths

Answer: A

Question No : 8

OSPF is being used for segment routing with traffic-engineering (SR-TE). The traffic-engineering option has been set to "sr-te false". Which of the following statements is TRUE?

A. The TE information will be advertised for all the OSPF links that have MPLS enabled.
B. The TE information will only be advertised using application-specific sub-TLVs.
C. The TE information will only be advertised for the OSPF links that have both MPLS and RSVP enabled.
D. The TE information will only be advertised using extended-link opaque LSAs.

Answer: D

Explanation: When using Segment Routing with Traffic Engineering (SR-TE) in OSPF, the TE information is advertised using extended-link opaque LSAs. The option "sr-te false" indicates that OSPF will not advertise the TE information in the OSPF database, thus the routers will not be aware of the TE information.

Question No : 9

Which of the following statements about path definitions is FALSE?

A. Once a path is associated with an LSP, it cannot be used by other LSPs.
B. A loose hop is one that does not have to be directly adjacent to the previous hop in the path list
C. The path hops can be defined by either the system or physical interface IP address.
D. In addition to the hops defined in the path list, the head-end and tail-end routers are implicitly added.

Answer: C

Question No : 10

Which of the following statements about Segment Routing is FALSE?

A. No path signaling is required to establish an SR tunnel.
B. Intermediate routers do not maintain any tunnel informal
C. A link-state IGP is required to distribute SID information.

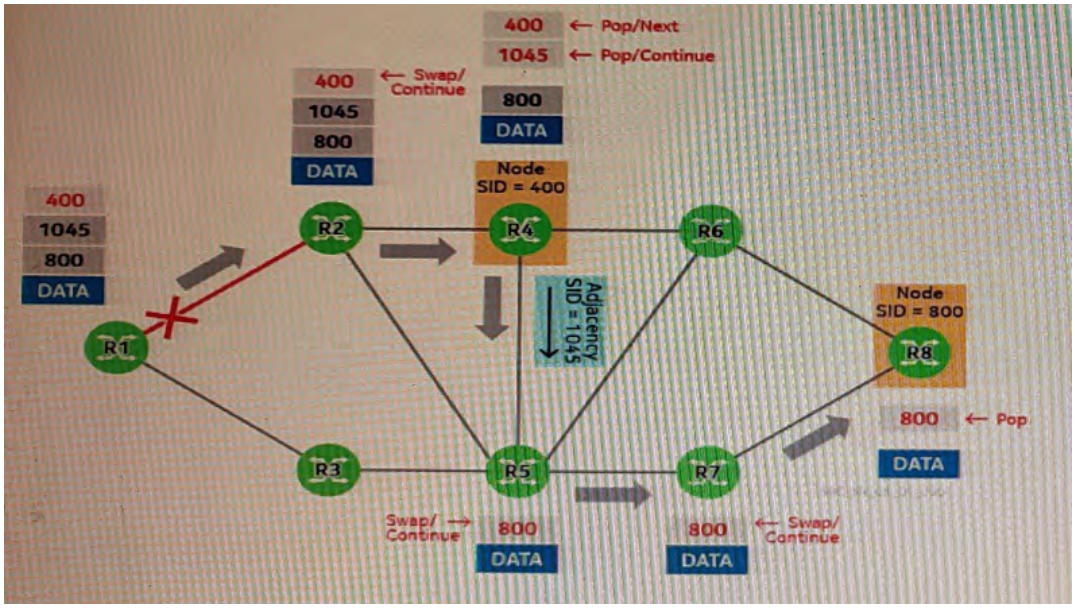
D. For TE-constrained tunnels, each data packet typically carries a single MPLS label to specify the tunnel path.

Answer: B

Explanation: Intermediate routers do not maintain any tunnel informal: this statement is false, Intermediate routers do maintain tunnel information, such as the Forwarding Information Base (FIB) to forward the packets according to the path specified in the packets.

Question No : 11

The exhibit presents packets being transmitted inside an LSP's multi-segment primary path going from router R1 to router R8. The LSP also has a standby secondary path, and Seamless-BFD has been enabled on the primary path. The link between routers R1 and R2 fails, and fast re-route (FRR) is triggered. As a result, router R1 forwards the packets to router R3 and adds the proper FRR encapsulation to reach which router?



A. To reach router R2, which is the LSP's intended next-hop.
B. To reach router R5, which is the shortest way to go back to the original path.
C. To reach router R4, which is the tail-end of the active segment.
D. To reach router R8, which is the tail-end of the LSP.

Answer: B

Question No : 12

A router participating in SR-TE is advertising a value of Ox11 for the admin-group membership of one of its interfaces. Which of the following statements is TRUE?

A. The interface belongs to admin group RED, configured with a value of 17.
B. The interface belongs to two different admin groups.
C. The interface belongs to three different admin groups.
D. The interface belongs to four different admin groups.

Answer: B

Explanation: In SR-TE, the admin-group is represented by a 32-bit value, where each bit represents a different admin-group. The value Ox11 in binary is 000100010001, which has two bits set to 1, indicating that the interface belongs to two different admin groups. The exact admin-groups that the interface belongs to depends on how the admin-groups have been configured on the router.

Question No : 13

Which of the following statements about a Segment Routing SID is FALSE?

A. A local Node-SID can be configured directly as an MPLS label.
B. A router advertises its local Node-SID as a local SRGB and an index only if it is configured as an index.
C. All routers do NOT need to have the same SRGB range configured.
D. A local Node-SID can be configured as an index.

Answer: B

Explanation: A router advertises its local Node-SID as a local SRGB and an index only if it is configured as an index: This statement is not true, A router will advertise its local Node-SID as a local SRGB and an index, whether it is configured as an index or not.

Question No : 14

Loopfree-alternate has been enabled on a router for its link-state routing protocol. For which types of segments will the router attempt to find a backup path, so that they become protected by fast re-route?

A. Only segments defined by a Node-SID.
B. Only segments defined by an Adjacency-SID.
C. Segments defined by a Node-SID and segments defined by an Adjacency-SID.
D. No segments, unless segment-routing fast-reroute is also explicitly enabled.