Free Cisco 300-420 ENSLD Practice Questions

Shared by Glover on 13-08-2026

For More Free Questions and Preparation Resources

Check the Links on Last Page

Question 1

Question Type: MultipleChoice

An architect is creating a migration strategy for a large organization in which the choice made by the application between IPv6 and IPv4 is based on the DNS request. Which migration strategy does the architect choose?

Options:

A- AFT for public web presence
B- host-initiated tunnels
C- dual stack
D- site-to-site IPv6 over IPv4 tunnels

Answer:

C

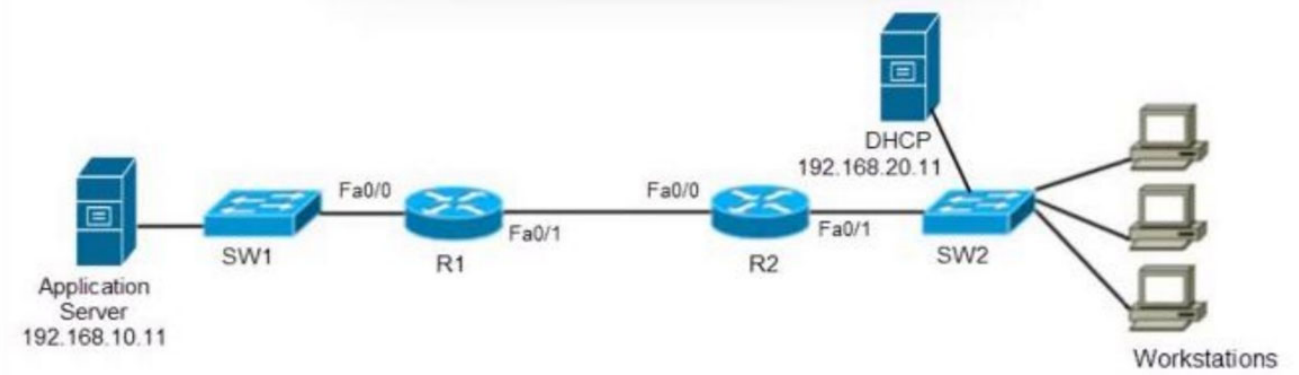
Explanation:

Dual stack is the correct migration strategy when the application chooses IPv6 or IPv4 based on DNS resolution. In a dual-stack deployment, hosts and network devices run IPv4 and IPv6 at the same time. Applications can query DNS and then select the protocol based on the returned records, such as using an AAAA record for IPv6 or an A record for IPv4. This gives the organization a controlled migration path because IPv6-capable applications and services can move to IPv6 while legacy IPv4 services remain reachable during the transition. Address-family translation for public web presence is useful when IPv6-only and IPv4-only endpoints must communicate through a translation boundary, but it does not provide native application choice between the protocols. Host-initiated tunnels and site-to-site IPv6-over-IPv4 tunnels encapsulate one protocol over another and add operational overhead. The question's key phrase is that the application chooses between IPv6 and IPv4 based on DNS; that is the normal dual-stack behavior. Reference topics: IPv6 migration, dual stack, DNS A and AAAA records, transition strategy, application protocol selection.

Question 2

Question Type: MultipleChoice

Refer to the exhibit.



An architect is designing a network for a customer supporting a Wake-on-LAN application. Which solution must the architect choose?

Options:

A- IP directed-broadcasts on R1
B- spanning-tree uplinkfast on SW1
C- spanning-tree uplinkfast on SW2
D- IP directed-broadcasts on R2

Answer:

D

Explanation:

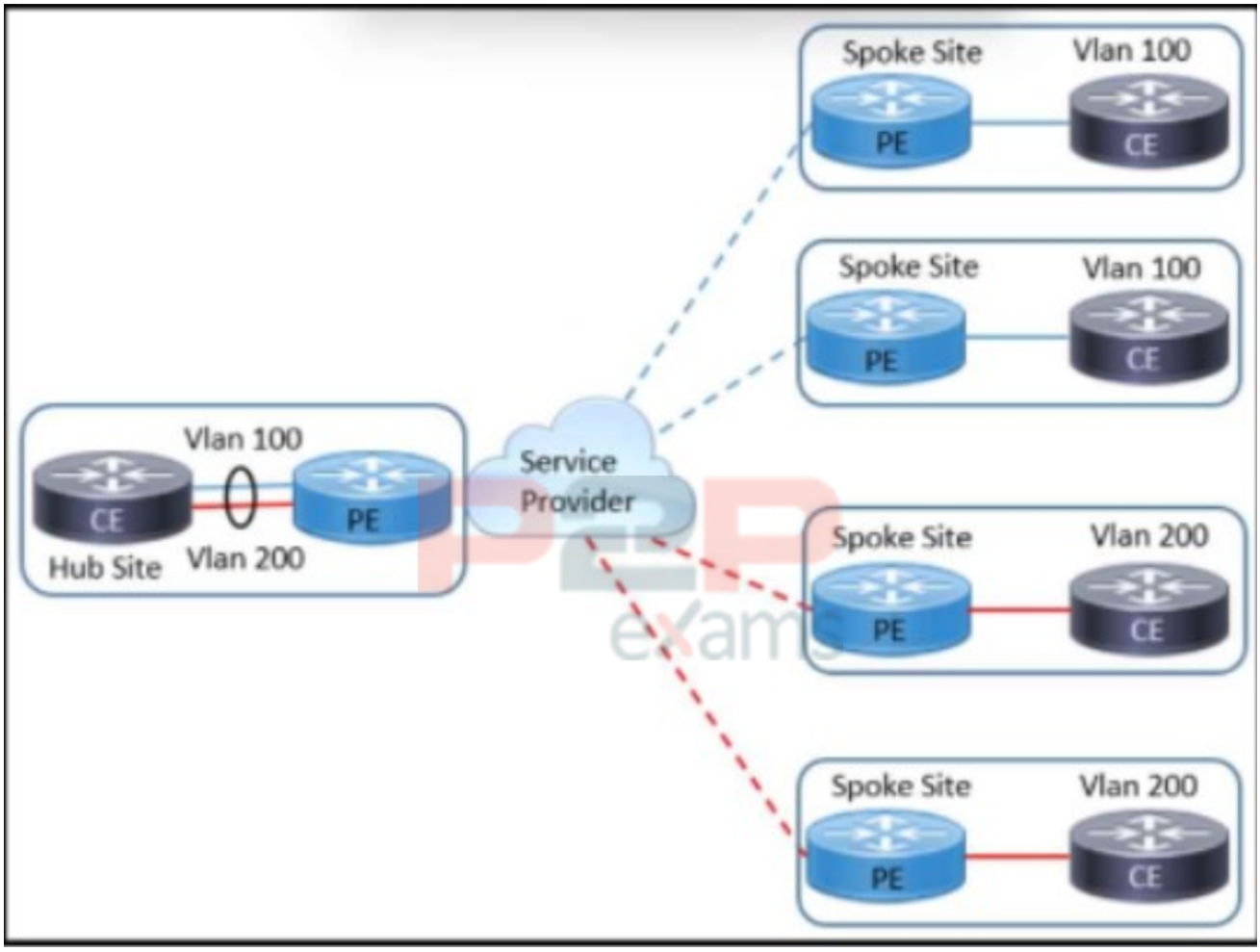
'IP directed broadcast' must be supported on the last router to the destination subnet. Since the sleeping PC's dont have IP adresses, the machines must be calles awake by broadcast that behaves like an unicast untill they reach the destination network. There the directed broadcast is handled like a proper broadcast to wake all WOL machines.

https://www.cisco.com/c/en/us/support/docs/switches/catalyst-3750-series-switches/91672-catl3-wol-vlans.html

Question 3

Question Type: MultipleChoice

Refer to the exhibit.



Refer to the exhibit. An architect working for a service provider with an employee ID: 4763:44:876 must design a Layer 2 VPN solution that supports:

transparency of service provider devices

direct communication between CE routers attached to the same VLAN

Which solution must the design include?

Options:

A- multiple VPWS
B- single VPLS
C- single VPWS
D- multiple VPLS

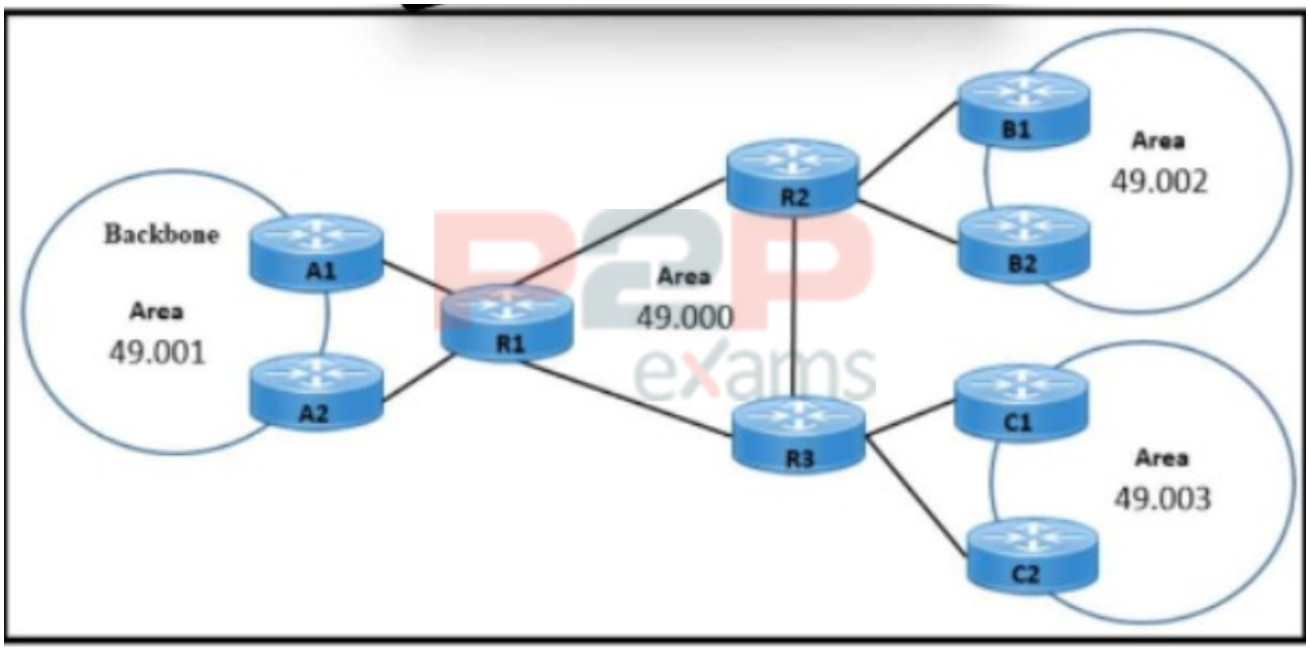
Answer:

B

Question 4

Question Type: MultipleChoice

Refer to the exhibit.



Refer to the exhibit. An architect is designing an ISIS solution with these requirements:

The backbone area will grow to 50 routers in the next 12 months.

Routers A1 and A2 must avoid suboptimal routing.

Summarization and route-leaking should be allowed in areas 49.002 and 49.003.

Which solution must the architect Choose?

Options:

A- area 49.000 L1, area 49.001 L2, area 49.002 L2, and area 49.003 L2
B- area 49.000 L1, area 49.001 L1, area 49.002 L2, and area 49.003 L2
C- area 49.000 L2. area 49.001 L1, area 49.002 L1, and area 49.003 L1
D- area 49.000 L2. area 49.001 L2, area 49.002 L1, and area 49.003 L1

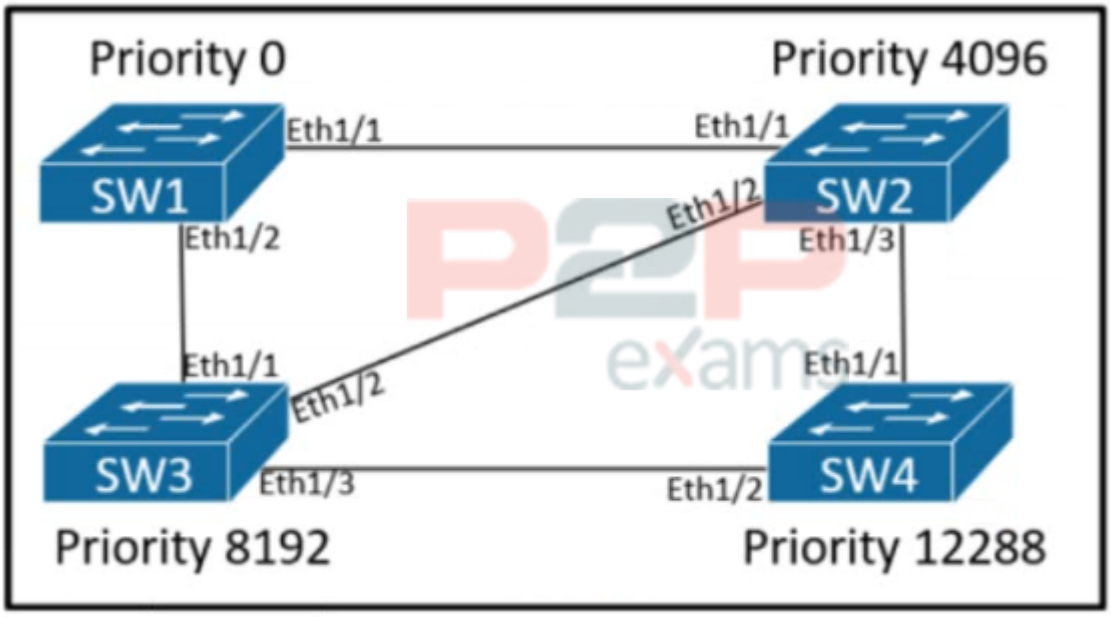
Answer:

C

Question 5

Question Type: MultipleChoice

Refer to the exhibit.



Refer to the exhibit. An engineer proposed this solution for a company that requires a loop-free. Layer 2 network design. The network will run 802.1W, and all links will be 1 Gbps. If all interfaces are up as point- to-point adjacencies, what are the expected port end states based on the design?

Options:

A- Eth1/2 on SW2 and SW3 will be in a Desg FWD state
B- Eth1/3 on SW2 and SW3 will be m an Attn BLK state
C- Eth1/2 on SW3 and SW4 will be m an Attn BLKbtate.
D- Eth1/1 on SW1 and SW2 will be in a Root FWD state.

Answer:

C

Question 6

Question Type: MultipleChoice

What is the purpose of the fabric management plane in a Cisco SD-Access architecture?

Options:

A- create LISP-based EID for the end-to-end solution that is offered by SD-Access
B- enable EID-to-RLOC mapping that is based on the BGP protocol
C- create an underlay network that is based on the IS-IS routing protocol
D- enable automation techniques for device deployments and configurations

Answer:

A

Question 7

Question Type: MultipleChoice

An engineer is creating a design to enable IPv6 to run on an existing IPv4 IS-IS network. The IPv4 and IPv6 topologies will match exactly, and the engineer plans to use the same router levels for each protocol per interface. Which IS-IS design is required?

Options:

A- single topology without enabling transition feature
B- single topology with transition feature enabled
C- multi topology with transition feature enabled
D- multi topology without enabling transition feature

Answer:

B

Explanation:

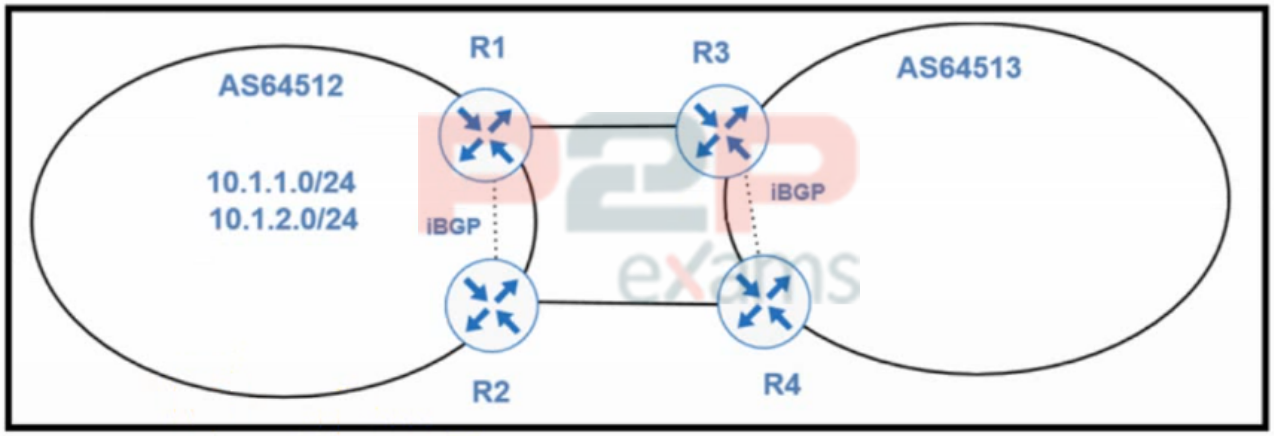
https://www.cisco.com/c/en/us/td/docs/ios-xml/ios/iproute_isis/configuration/xe-3s/irs-xe-3s-book/ip6-route-isis-xe.html#GUID-04990BCF-8228-459E-AFAA-9FAF1E2136E9

For single-topology IS-IS IPv6, routers must be configured to run the same set of address families. IS-IS performs consistency checks on hello packets and will reject hello packets that do not have the same set of configured address families. For example, a router running IS-IS for both IPv4 and IPv6 will not form an adjacency with a router running IS-IS for IPv4 or IPv6 only. In order to allow adjacency to be formed in mismatched address-families network, the adjacency-check command in IPv6 address family configuration mode must be disabled.

Question 8

Question Type: MultipleChoice

Refer to the exhibit.



Refer to the exhibit. An architect designs a BGP policy for a customer that requires load sharing of the links that connect with the upstream service provider. The customer has these requirements: * The inbound traffic destined to network 10.1.1.0/24 must transit the R3-R1 link, and if the link fails, all inbound traffic must transit the R4-R2 link.

* The inbound traffic destined to network 10.1.2.0/24 must transit the R4-R2 link, and if the link fails, all inbound traffic should transit the R3-R1 link.

Which solution must the architect choose?

Options:

A- * R1 must announce prefix 10.1.2.0/24 with the route map applied to the neighbor using set as-path prepend 64512 64512
* R2 must announce prefix 10.1.1.0/24 with the route map applied to the neighbor using set as-path prepend 64512 64512.

B- * R1 must announce prefix 10.1 2.0/24 with a community attribute 64513:300 and prefix 10.1.1.0/24 with a community attribute 64513:200.
* R2 must announce prefix 10.1.2.0/24 with a community attribute 64513:200 and prefix 10.1.1.0/24 with a community attribute 64513:300.

C- * R1 must announce prefix 10.1.1.0/24 with the route map applied to the neighbor using set as-path prepend 64512 64512.
* R2 must announce prefix 10.1.2.0/24 with the route map applied to the neighbor using set as-path prepend 64512 64512.

D- * R1 must announce prefix 10.1.2.0/24 with a community attribute 64513:200 and prefix 10.1.1.0/24 with a community attribute 64513:300.
* R2 must announce prefix 10.1.2.0/24 with a community attribute 64513:300 and prefix 10.1.1.0/24 with a community attribute 64513:200.

Answer:

A

Question 9

Question Type: MultipleChoice

An engineer is designing a network for a customer running a wireless network with a common VLAN for all APs. The customer is experiencing unicast flooding in the Layer 2 network between the aggregation and access layers. The customer wants to reduce the flooding and improve convergence time. Which solution meets these requirements?

Options:

A- Migrate all APs to a common Layer 2 access layer switch and run Layer 3 from the aggregation layer to all remaining access layer switches.
B- Align HSRP primary and STP root bridges and reduce ARP timers to match CAM timers on the aggregation layer switches.
C- Migrate to a Layer 3 access campus design if the APs can run on separate VLANs.
D- Align HSRP primary and STP root bridges if the APs cannot run on separate VLANs.

Answer:

D

Explanation:

Because the wireless access points must remain in a common VLAN, the practical design is to align the HSRP active gateway with the spanning-tree root bridge for that VLAN. Unicast flooding commonly occurs when a Layer 2 domain is stretched between aggregation and access layers and the traffic path becomes asymmetric. If the HSRP active gateway is on one aggregation switch while STP forwards the Layer 2 path through a different aggregation switch, return traffic can be forced across inter-switch links and CAM table aging can create flooding conditions. Cisco campus design guidance emphasizes aligning Layer 2 and Layer 3 forwarding roles so the active default gateway and spanning-tree root are colocated for each VLAN. Migrating to routed access is usually the best long-term design, but it requires the APs to run on separate VLANs; the question states they use a common VLAN. Reducing ARP timers to match CAM timers can help some flooding cases, but it is not the core design fix offered here. Reference topics: HSRP and STP alignment, unicast flooding, Layer 2 campus design, wireless AP VLAN design.

Question 10

Question Type: MultipleChoice

Which QoS feature responds to network congestion by dropping lower priority packets?

Options:

A- CBWFQ
B- tail drop
C- WRED
D- strict priority

Answer:

C

Explanation:

Weighted Random Early Detection is the QoS congestion-avoidance feature that responds to early congestion by selectively dropping packets before a queue becomes completely full. WRED can use packet markings, such as IP precedence or DSCP, to determine drop probability, so lower-priority traffic can be dropped earlier than higher-priority traffic. This helps TCP-based applications slow down before tail drop causes large synchronized retransmissions. CBWFQ is a queuing and bandwidth-allocation mechanism; it classifies traffic into queues and assigns bandwidth, but it is not specifically the feature that randomly drops lower-priority packets during congestion. Tail drop drops packets only when the queue is full and does not intelligently prefer lower-priority traffic. Strict priority queuing protects delay-sensitive traffic by servicing a priority queue first, but it does not provide weighted random early discard behavior. In Cisco QoS design, WRED is used as a congestion-avoidance mechanism, especially for TCP traffic classes where early packet drops can reduce global synchronization and protect higher-priority classes.

Question 11

Question Type: MultipleChoice

A customer's environment includes hosts that support IPv6-only. Several of these hosts must communicate with a public web server that has only IPv4 domain name resolution. Which

solution should the customer use in this environment?

Options:

A- utilize NAT64 to translate the addresses
B- Implement NAT44 at the edge of the customer network
C- use 6to4 and a tunnel to translate the addresses
D- implement 6PE to resolve hostname resolution

Answer:

A

Explanation:

NAT64 is the correct solution when IPv6-only hosts must communicate with an IPv4-only public web server. NAT64 translates IPv6 packets from the client side into IPv4 packets toward the server and translates the return traffic back into IPv6. In most practical designs, NAT64 is paired with DNS64 so IPv6-only clients can receive synthesized AAAA records for IPv4-only destinations. NAT44 is only IPv4-to-IPv4 translation and cannot support IPv6-only hosts. 6to4 is an IPv6-over-IPv4 tunneling mechanism, not an IPv6-to-IPv4 translation service for reaching an IPv4-only server. 6PE carries IPv6 reachability across an MPLS IPv4 core and does not solve IPv6-only client access to an IPv4-only domain. The question specifically states that the hosts support IPv6-only and the public web server has only IPv4 domain name resolution. That is the classic NAT64/DNS64 use case. The architect must also plan stateful translation capacity, logging requirements, IPv4 address pool sizing, and DNS behavior. Reference topics: NAT64, DNS64, IPv6 transition, IPv6-only hosts, IPv4-only server access.