Designing Cisco Data Center Unified Fabric

Number: 642-996 Passing Score: 797 Time Limit: 120 min File Version: 5.0



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Exam Name: Designing Cisco Data Center Unified Fabric (DCUFD)

Sections

- 1. A
- 2. B
- 3. C
- 4. Exhibit Case

Multiple Choices

QUESTION 1

Which tool, previously known as Cisco Fabric Manager, would you use in a data center to help manage unified fabrics with SAN connectivity?

- A. Cisco ANM
- B. Flexible NetFlow
- C. Cisco Prime LMS
- D. Cisco Prime DCNM for LAN
- E. Cisco Prime DCNM for SAN
- F. Cisco VNMC

Correct Answer: E

Section: A Explanation

Explanation/Reference:

Explanation:

QUESTION 2

Which tool provides centralized device and security policy management for Cisco VSG?

- A. Cisco ANM
- B. Flexible NetFlow
- C. Cisco Prime LMS
- D. Cisco Prime DCNM for LAN
- E. Cisco Prime DCNM for SAN
- F. Cisco VNMC

Correct Answer: F

Section: A Explanation

Explanation/Reference:

Explanation:

QUESTION 3

Which tool is a part of the Cisco ACE product family and is a critical component for cloud computing architectures?

- A. Cisco ANM
- B. Flexible NetFlow
- C. Cisco Prime LMS
- D. Cisco Prime DCNM for LAN

Correct Answer: A

Section: A Explanation

Explanation/Reference:

Explanation:

QUESTION 4

Which two Nexus 7000 licenses are required to manage FabricPath from Cisco Data Center Network Manager

(DCNM)? (Choose two.)

- A. Nexus 7000 Enhanced Layer 2 License
- B. Nexus 7000 Transport Services License
- C. Cisco DCNM for SAN Advanced Edition for Nexus 7000
- D. Nexus 7000 LAN Enterprise License
- E. Cisco DCNM for Nexus 7000
- F. Nexus 7000 Scalable Feature License

Correct Answer: AE

Section: A Explanation

Explanation/Reference:

Explanation:

QUESTION 5

What is one example of a business requirement that drives the design of a newly installed data center?

- A. power
- B. cooling
- C. resource utilization and provisioning
- D. global availability

Correct Answer: D

Section: A Explanation

Explanation/Reference:

Explanation:

QUESTION 6

Which technologies will be found in a data center that is designed for Cisco equipment?



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- A. NPV
- B. NPIV
- C. VSAN
- D. FCoE

Correct Answer: C

Section: A Explanation

Explanation/Reference:

Explanation:

QUESTION 7

Your customer is designing a new data center and would like the aggregation layer to be able to route and have Layer 3 capability. What Cisco platform will meet this requirement?

- A. Cisco Nexus 1000v--no advantages to this model
- B. Cisco Nexus 5596 without Layer 3 daughter card
- C. Cisco MDS 9506 chassis with supervisor engine
- D. Cisco Nexus 7010 switch with Enterprise Services Package

Correct Answer: D

Section: A Explanation

Explanation/Reference:

Explanation:

QUESTION 8

Which technology provides the ability to use all links in a LAN topology by providing an active- active path to the upstream switch?

- A. STP
- B. vPC
- C. PVST+
- D. RSTP

Correct Answer: B

Section: A Explanation

Explanation/Reference:

Explanation:

QUESTION 9

What is a required component to run FCoE?

- A. iSCSI gateway
- B. Fibre Channel adapter
- C. HBA
- D. Cisco Network Assistant

Correct Answer: D

Section: A Explanation

Explanation/Reference:

Explanation:

QUESTION 10

Which of the following is true with respect to Cisco Adapter FEX?

- A. Cisco Adapter FEX is only supported on vSwitch.
- B. Cisco Adapter FEX enables the server adapter to be logically partitioned into multiple vNICs.
- C. Cisco Adapter FEX does not provide architectural flexibility.
- D. Cisco Adapter FEX increases the number of cables in the data center.

Correct Answer: B

Section: A Explanation

Explanation/Reference:

Explanation:

QUESTION 11

What is the principal advantage of various layers in the architecture of data center infrastructure?

- A. no advantages to this model
- B. hierarchical structure and its modularity
- C. cost of ownership
- D. return on investment

Correct Answer: B

Section: A Explanation

Explanation/Reference:

Explanation:

QUESTION 12

The classical access layer has its limitations due to high rate in which of the following?

- A. oversubscription
- B. jitter
- C. cost
- D. 10 Gigabit Ethernet links

Correct Answer: A

Section: A Explanation

Explanation/Reference:

Explanation:

QUESTION 13

Which physical data center design will reduce cabling and keep all of the cables within a rack?

- A. ToR design
- B. MoR design
- C. EoR design
- D. ILR design

Correct Answer: A

Section: A Explanation

Explanation/Reference:

Explanation:

QUESTION 14

Classical aggregation layer designs do not provide isolation of the control and data planes. What provides a solution to this limitation?

A. STP

- B. VDC
- C. ISSU
- D. HSRP

Correct Answer: B

Section: B Explanation

Explanation/Reference:

Explanation:

QUESTION 15

What introduces unique implications into the overall Data Center aggregation layer design? (Choose Three.)

- A. High-speed switching fabric with a high forwarding rate
- B. Over-subscription values
- C. Service Modules
- D. IP routing
- E. WAN
- F. Internet Edge

Correct Answer: ABC

Section: B Explanation

Explanation/Reference:

Explanation:

QUESTION 16

Spanning Tree Protocol runs at which functional layer of the data center?

- A. core layer
- B. access layer
- C. application layer
- D. network layer

Correct Answer: B

Section: B Explanation

Explanation/Reference:

Explanation:

QUESTION 17

Your customer is designing a new data center with FCoE. Which three appropriate platforms are capable of meeting this requirement? (Choose three.)

- A. Cisco Nexus 5596 switch with FCoE license
- B. Cisco Nexus 7010 switch with FCoE license
- C. Cisco Fabric Extender with FCoE support
- D. Cisco 2948 switch with FCoE license
- E. Cisco Catalyst 6509 switch with FCoE blade

Correct Answer: ABC

Section: B Explanation

Explanation/Reference:

Explanation:

QUESTION 18

What is one required component to run FCoE?

- A. iSCSI gateway
- B. Fibre Channel adapter
- C. HBA
- D. Converged network adaptors

Correct Answer: D

Section: B Explanation

Explanation/Reference:

Explanation:

QUESTION 19

Access layer switches are located as which type of design to provide network connectivity to servers that are installed in rack?

- A. ToR design
- B. MoR design
- C. EoR design
- D. ILR

Correct Answer: A

Section: B Explanation

Explanation/Reference:

Explanation:

QUESTION 20

Which two technologies can overcome the link blocking feature that STP implements to ensure a loop-free topology? (Choose two.)

- A. vPC
- B. ISSU
- C. MEC
- D. NX-OS HA
- E. GLBP

Correct Answer: AC

Section: B Explanation

Explanation/Reference:

Explanation:

QUESTION 21

Your customer would like to run FCoE in the access layer. Which fabric extender should the customer utilize in

its design?

- A. Cisco Nexus 2148T
- B. Cisco Nexus 2224TP
- C. Cisco Nexus 2248TP-F
- D. Cisco Nexus 2232PP

Correct Answer: D

Section: B Explanation

Explanation/Reference:

Explanation:

QUESTION 22

Which Cisco Nexus switch offers possibilities for implementation of the virtual switching layer in VMware?

- A. Cisco Nexus 5596 Switch
- B. Cisco Nexus 7010 Switch
- C. Cisco Nexus 1000v Switch
- D. Cisco Nexus 2248 FEX

Correct Answer: C

Section: B Explanation

Explanation/Reference:

Explanation:

QUESTION 23

Which item represents a method of increasing storage utilization efficiency?

- A. thin provisioning
- B. thick provisioning
- C. transparent provisioning
- D. hold-back provisioning
- E. weighted provisioning

Correct Answer: A

Section: B Explanation

Explanation/Reference:

Explanation:

QUESTION 24

Which item uses TCP as a block I/O transport?

- A. NFS v4
- B. HyperTransport
- C. AoE
- D. FCoE
- E. CIFS
- F. iSCSI

Correct Answer: F

Section: B Explanation

Explanation/Reference:

Explanation:

QUESTION 25

What is required to allow for FCoE multihop prior to the ratification of FC-BB-6?

- A. VN to VF encapsulation
- B. FIP snooping
- C. FCoE proxy
- D. Fibre Channel bridging at FC-2
- E. VE to VE tunneling

Correct Answer: B

Section: B Explanation

Explanation/Reference:

Explanation:

QUESTION 26

What is required to be configured in VMware vCenter to allow a VM direct access to a Fibre Channel LUN?

- A. DirectPath I/O
- B. VM-FEX
- C. Adapter FEX
- D. Raw Device Mapping
- E. Solid State Drive

Correct Answer: D

Section: B Explanation

Explanation/Reference:

Explanation:

QUESTION 27

After a recent acquisition, you have been asked to merge two SANs into one. Which SAN topology is Cisco recommended?

- A. Core-Edge
- B. Edge-Core-Edge
- C. Core Access
- D. Collapsed Core
- E. Collapsed Core-Edge

Correct Answer: B

Section: B Explanation

Explanation/Reference:

Explanation:

QUESTION 28

Which two Cisco MDS 9500 line cards support SME? (Choose two.)

- A. Cisco MDS 9000 Family Storage Services Module
- B. Cisco MDS 9000 Family Multiprotocol Services Module
- C. Cisco MDS 9000 Family 8-Gbps Advanced Fibre Channel Switching Module
- D. Cisco MDS 9000 Family IP Storage Services Module
- E. Cisco MDS 9000 Family Storage Processor Node
- F. Cisco MDS 9000 Family Multiservices Module

Correct Answer: BF

Section: B Explanation

Explanation/Reference:

Explanation:

QUESTION 29

Your customer has asked you to recommend a data center storage design that includes Multihop FCoE for 400 database servers running on Cisco UCS C460M2 Rack Servers with Cisco UCS VIC 1225. Which of these server connectivity options is Cisco recommended for scalability and cost- effectiveness?

- A. Server > Cisco Nexus 5548UP > Cisco Nexus 7018 > CISCO MDS 9500
- B. Server > Cisco Nexus 3548 > Cisco Nexus 7018 > CISCO MDS 9500
- C. Server > Cisco Nexus 2232PP > Cisco Nexus 7018 > CISCO MDS 9500
- D. Server > Cisco Nexus 4001i > Cisco Nexus 7018 > CISCO MDS 9500

Correct Answer: C

Section: B Explanation

Explanation/Reference:

Explanation:

QUESTION 30

Which two features require configuration on a Cisco Nexus 7000 Series data center switch to combat ARP cache poisoning attacks? (Choose two.)

- A. Port Security
- B. MAC ACL
- C. TrustSec
- D. DAI
- E. DHCP Snooping
- F. ARP Guard

Correct Answer: DE

Section: B Explanation

Explanation/Reference:

Explanation:

QUESTION 31

A customer is interested in endpoint security at the access layer, which option is Cisco recommended?

- A. ACLs
- B. DAI
- C. TrustSec
- D. stateful inspection
- E. UDLD

Correct Answer: C

Section: B Explanation

Explanation/Reference:

Explanation:

QUESTION 32

Which software runs on a device that is connected to a TrustSec-enabled port?

- A. Initiator
- B. Authenticator
- C. Supplicant
- D. Requester
- E. Authentication Proxy

Correct Answer: C

Section: B Explanation

Explanation/Reference:

Explanation:

QUESTION 33

Which two items represent attacks that are mitigated by CoPP? (Choose two.)

- A. ARP cache poisoning
- B. data plane DoS
- C. ping flooding
- D. Diffie Hellman
- E. smurf attack
- F. ping of death

Correct Answer: CE

Section: B Explanation

Explanation/Reference:

Explanation:

QUESTION 34

Which command sequence represents a correct process to establish OSPF peer authentication credentials?

- A. N7010-C2(config)# key chain OSPF N7010-C2(config-keychain)# key 0 N7010-C2(config-keychain-key)# key-string
- B. N7010-C2(config)# key-chain 0

N7010-C2(config-key-chain)# key-name OSPF N7010-C2(config-key-chain-key)# key-string

C. N7010-C2(config)# key ring OSPF N7010-C2(config-keyring)# key 0 N7010-C2(config-keyring-key)# key-string

D. N7010-C2(config)# key-ring 0

N7010-C2(config-key-ring)# key-name OSPF N7010-C2(config-key-ring-key)# key-string

Correct Answer: A Section: B

Explanation

Explanation/Reference:

Explanation:

QUESTION 35

Assume that a Cisco Nexus 7018 is running with dual Supervisor 2 modules. Which two items are available management access methods to reach the CLI? (Choose two.)

- A. CMP
- B. serial console
- C. SSH
- D. SNMP
- E. CIM
- F. XML API

Correct Answer: BC

Section: B Explanation

Explanation/Reference:

Explanation:

QUESTION 36

What is one of the benefits within a Cisco Data Center Network Manager (DCNM)?

- A. supports software upgrade and downgrade on the Nexus 1000
- B. supports graphical management of FabricPath on the Nexus 7000
- C. supports VDC management on the Nexus 5000
- D. supports configuration backup and restore on the Nexus 1000

Correct Answer: B

Section: B Explanation

Explanation/Reference:

Explanation:

QUESTION 37

What is one example of typical business requirements that are driving the design of installed base data centers?

- A. IT reorganization
- B. virtualization

- C. greater collaboration
- D. physical space

Correct Answer: C

Section: C Explanation

Explanation/Reference:

Explanation:

QUESTION 38

What documents are not typically an output that is deliverable from the design phase?

- A. high-level design
- B. site requirements specification
- C. troubleshooting procedures
- D. migration plan

Correct Answer: C

Section: C Explanation

Explanation/Reference:

Explanation:

QUESTION 39

What is the most common design requirement when creating a data center solution?



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- A. high availability with disaster recovery
- B. multicore CPU servers
- C. traffic inspection for inbound traffic
- D. virtualization of network resources

Correct Answer: A

Section: C Explanation

Explanation/Reference:

Explanation:

QUESTION 40

What is a typical output of the design planning phase that characterizes an existing data center?

- A. a high-level conceptual architecture proposal
- B. a gap analysis
- C. a verification plan
- D. reactive fault detection and correction

Correct Answer: B

Section: C Explanation

Explanation/Reference:

Explanation:

QUESTION 41

Which two characteristics are associated with the core layer of a Data Center Unified Fabric network? (Choose two.)

- A. no packet manipulation
- B. QoS--policing
- C. voice, data, and wireless convergence
- D. scalable routing protocols like OSPF
- E. Layer 2 default gateway redundancy
- F. QoS--classification and queuing

Correct Answer: AD

Section: C Explanation

Explanation/Reference:

Explanation:

QUESTION 42

Which three characteristics are associated with the aggregation layer of a Data Center Unified Fabric network? (Choose three.)

- A. no packet manipulation
- B. QoS--policing
- C. voice, data, and wireless convergence
- D. scalable routing protocols like OSPF
- E. provides default gateway redundancy
- F. QoS--classification and queuing
- G. routing manipulation and filtering
- H. aggregates end users

Correct Answer: BEG

Section: C Explanation

Explanation/Reference:

Explanation:

QUESTION 43

Which protocols are Cisco recommended for connecting the main data center to a remote data center?

- A. LISP
- B. OTV
- C. FabricPath
- D. vPC

Correct Answer: B

Section: C Explanation

Explanation/Reference:

Explanation:

QUESTION 44

When migrating an existing data center network to a unified fabric network, which transitions should you expect to see?

- A. IOS to Nexus networking equipment
- B. physical to virtual machines
- C. Fibre Chanel to FCoE
- D. iSCSI to NAS

Correct Answer: C

Section: C Explanation

Explanation/Reference:

Explanation:

QUESTION 45

In a medium size Data Center, which three routing protocols would you use? (Choose Three.)

- A. EIGRP
- B. ISIS
- C. OSPF
- D. RIPv2
- E. HSRP

Correct Answer: ABC

Section: C Explanation

Explanation/Reference:

Explanation:

QUESTION 46

Layer 2 forwarding of multicast traffic with vPC is based on which modified protocol?

- A. CGMP
- B. PIM SS
- C. Auto-RP
- D. IGMP snooping
- E. Destination-based trees

Correct Answer: D

Section: C Explanation

Explanation/Reference:

Explanation:

QUESTION 47

Which protocol is required in order for FabricPath to support switches or hosts that dual-attach through classical Ethernet?

- A. VDC
- B. vPC
- C. LISP
- D. OTV
- E. VSS
- F. TRILL

Correct Answer: B

Section: C Explanation

Explanation/Reference:

Explanation:

QUESTION 48

In a geographically diverse data center environment, which high-availability feature allows data centers to simultaneously serve the same content to all sites?

- A. HSRP
- B. VRRP
- C. SLB
- D. GSLB
- E. FCoE

Correct Answer: D

Section: C Explanation

Explanation/Reference:

Explanation:

QUESTION 49

Which three control plane operations are used by vPC? (Choose three.)

- A. ARP cache
- B. MAC address learning
- C. CGMP snooping
- D. LACP
- E. BPDUs

Correct Answer: ABE

Section: C Explanation

Explanation/Reference:

Explanation:

QUESTION 50

Which innovation in the Cisco NX-OS Software brings an entirely new Layer 2 data plane by encapsulating the frames entering the device with a header that consists of a routable source and destination address?

- A. OTV
- B. MPLS
- C. Routing
- D. RSTP
- E. LISP

Correct Answer: A

Section: C Explanation

Explanation/Reference:

Explanation:

QUESTION 51

When designing a data center environment with ECMP and IP routing between the data center network segments, which design would be the most suitable?

- A. Layer 3 data center core
- B. Layer 3 data center core with Layer 2 extension
- C. Layer 2 data center core
- D. Layer 2 data center core with Layer 3 extension

Correct Answer: A

Section: C Explanation

Explanation/Reference:

Explanation:

QUESTION 52

When designing a collapsed core data center, which two technologies are used to virtualize the core and aggregation layers? (Choose two.)

- A. FCoE
- B. LISP
- C. HSRP
- D. VDC
- E. VRF

Correct Answer: DE

Section: C Explanation

Explanation/Reference:

Explanation:

QUESTION 53

The classical aggregation layer design does not provide isolation on the control plane and on the data plane. What is the solution to this problem?

- A. STP
- B. VDC
- C. Cisco ISO ISSU
- D. HSRP

Correct Answer: B

Section: C Explanation

Explanation/Reference:

Explanation:

QUESTION 54

Which technology provides the ability to use all links in a LAN topology by providing an active- active path to the upstream switch?

- A. STP
- B. vPC
- C. PVST+
- D. RSTP

Correct Answer: B

Section: C Explanation

Explanation/Reference:

Explanation:

Exhibit Diagrams

QUESTION 1

In et excitons

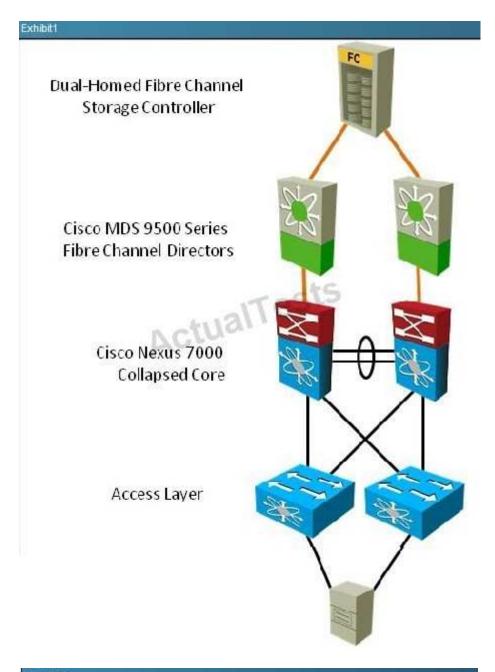


- THIS TASK DOES NOT REQUIRE DEVICE CONFIGURATION.
- . To access the multiple-choice questions, click on the numbered boxes on the left of the top panel.
- There are two multiple-choice questions with this task. Be sure to answer all four questions before selecting the Next button.

Scenario



Based on your knowledge of Cisco MDS 9500 Seris Fibre Channel Drirectors and Cisco Nexus 7000 Series Data Center Switches, answer two questions on the supplied topology.



Questions

- Which item represents a hardware requirement on the Cisco Nexus 7000 to terminate FCoE hosts? (Choose one.)
 - O F1 Series 10Gb Ethernet module
 - O M2 Series 10Gb Ethernet module
 - O X1 Series 10Gb Unified Fabric module
 - O C2 Series 10Gb Service module
- A. F1 Series 10Gb Ethernet module
- B. M2 Series 10Gb Ethernet module

- C. X1 Series 10Gb Unified Fabric module
- D. C2 Series 10Gb Service module

Correct Answer: A **Section: Exhibit Case**

Explanation

Explanation/Reference:

QUESTION 2

Instructions

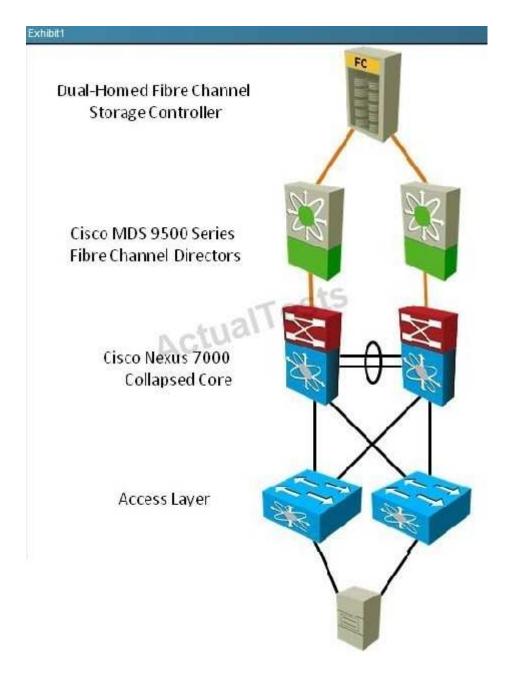


- THIS TASK DOES NOT REQUIRE DEVICE CONFIGURATION.
- To access the multiple-choice questions, click on the numbered boxes on the left of the top panel.
- There are two multiple-choice questions with this task. Be sure to answer all four questions before selecting the Next button.

Scenario



Based on your knowledge of Cisco MDS 9500 Seris Fibre Channel Drirectors and Cisco Nexus 7000 Series Data Center Switches, answer two questions on the supplied topology.



Which item represents a hardware requirement on the Cisco MDS 9500 Series Director to achieve Fibre Channel connectivity with the Cisco Nexus 7000 Series datacenter switch?

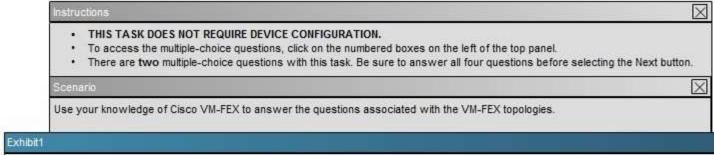
- A. Cisco MDS 9000 Family 48-Port 8-Gbps Advanced Fibre Channel Switching Module
- B. Cisco MDS 9000 Family 4-Port 10-Gbps Fibre Channel Switching Module
- C. Cisco MDS 9000 16-Port Storage Services Node
- D. Cisco MDS 9000 10-Gbps 8-Port FCoE Module

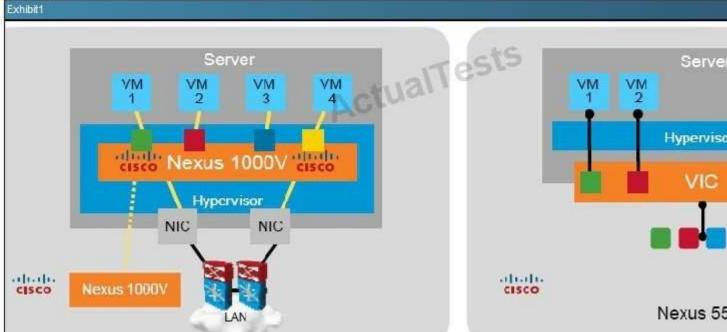
Correct Answer: D **Section:** Exhibit Case

Explanation

Explanation/Reference:

QUESTION 3 CORRECT TEXT





Which items represent features of VM-FEX with Cisco Nexus 1000V? (Choose three)

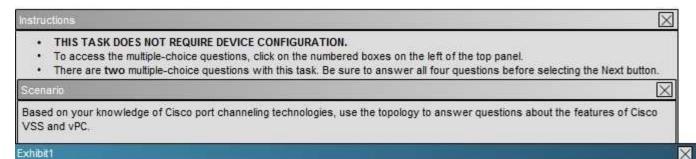
- A. Software packet switching
- B. Hardware packet switching
- C. 802.1Q
- D. VN-Tag (802.1Qbh)
- E. Feature rich
- F. Higher perfomance

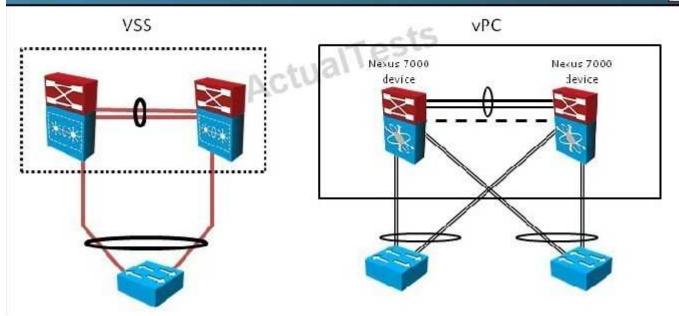
Correct Answer: ADE **Section: Exhibit Case**

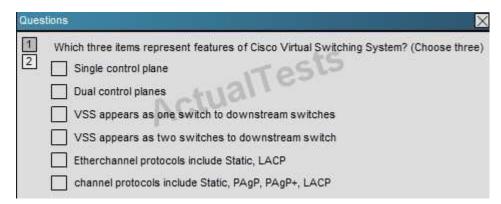
Explanation

Explanation/Reference:

QUESTION 4
CORRECT TEXT







- A. Single control plane
- B. Dual control planes
- C. VSS appears as one switch to downstream switches
- D. VSS appears as two switches to downstream switch
- E. Etherchannel protocols include Static, LACP
- F. channel protocols include Static, PAgP, PAgP+, LACP

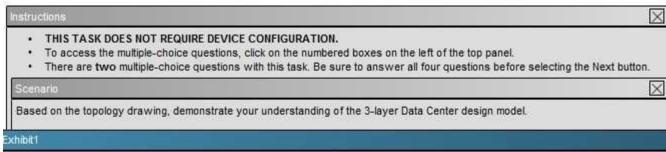
Correct Answer: ACE **Section:** Exhibit Case

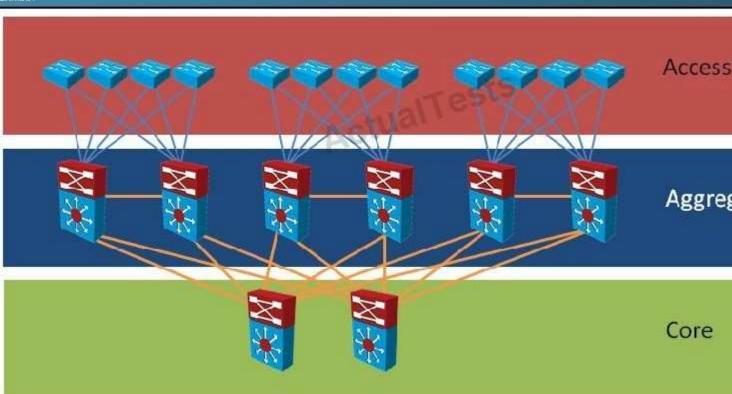
Explanation

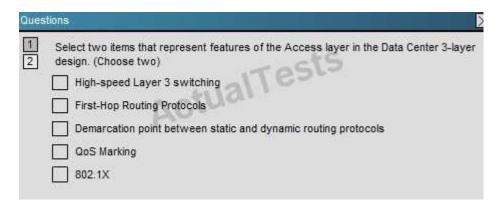
Explanation/Reference:

QUESTION 5

CORRECT TEXT







- A. High-speed Layer 3 switching
- B. First-Hop Routing Protocols

- C. Demarcation point between static and dynamic routing protocols
- D. QoS Marking
- E. 802.1X

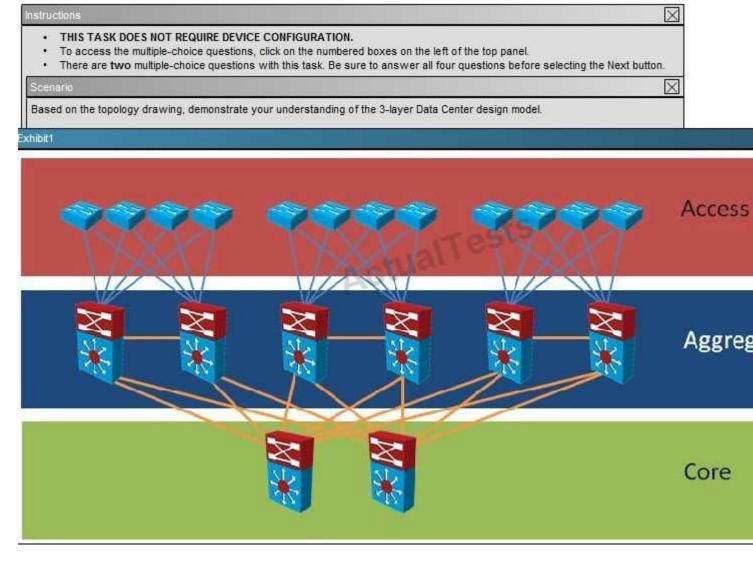
Correct Answer: BE Section: Exhibit Case

Explanation

Explanation/Reference:

QUESTION 6

CORRECT TEXT



Select two items that represent features of the aggregation layer in the Data Center 3-layer design. (Choose two)

- A. High-speed Layer 3 switching
- B. First-Hop Routing Protocols
- C. Demarcation point between static and dynamic routing protocols

D. QoS MarkingE. 802.1X

Correct Answer: AD Section: Exhibit Case

Explanation

Explanation/Reference:



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