

GETCERTKEY



GETCERTKEY

100% guarantee you pass IT cert exam!

Instant Update

We are checking our exam questions all the time.



Security & Privacy



24/7 customer support

Free Demo Download

Try before you buy, Download a free sample of any of our exam questions and answers.



One Year Free Update

Free update is available within One Year after your purchase.



<http://www.getcertkey.com>

No help, Full refund!

Exam : **300-610**

Title : Designing Cisco Data Center
Infrastructure

Vendor : Cisco

Version : DEMO

NO.1 Which Cisco HyperFlex feature provides virtual machine cost scaling for desktop virtualization growth?

- A. encryption offload cards
- B. dedicated compute cards
- C. HyperFlex Edge support
- D. Fabric Interconnects

Answer: C

NO.2 When booting from iSCSI while using multipathing, which type of address must be the same on both boot vNICs?

- A. OUI
- B. EUI
- C. IQN
- D. WWN

Answer: C

NO.3 Refer to the exhibit During a synchronization of port roles, a device receives a proposal message on one of its ports that is selected as the new root port. The logs show that Rapid PVST+forced all other ports to synchronize with the new root information. The engineer analyzes the port states and concludes that the device is synchronized with superior root information received on the root port, and all other ports are synchronized. What happens to a designated port that is in the forwarding state and is not configured as an edge port, if Rapid PVST+ forces it to synchronize with new root information?

- A. It does not receive BPDUs for transmission.
- B. It immediately replies with its own information.
- C. It discards frames switched from another port.
- D. It transitions to the Blocking state

Answer: D

NO.4 To help automate the vHBA configuration process, a network engineer is configuring vHBA template pairs on UCS The engineer is creating primary and secondary templates to define how vHBAs on a server connect to the SAN. Which fact about the template pair should the engineer consider for its potential impact on service?

- A. The QoS policy configuration will not be shared between the two templates
- B. The description configuration will be shared between the two templates
- C. The WWPN pool configuration will not be shared between the two templates.
- D. The fabric ID configuration will be shared between the two templates

Answer: A

NO.5 Which two automation requirements can be met by using Puppet? (Choose two.)

- A. Push configuration updates immediately to servers.
- B. Enable clients to pull changes to configuration files.
- C. Enable clients to pull changes without installing an agent.

- D. Provide support for writing new modules in Python.
- E. Enable one-off infrastructure changes to be performed manually.

Answer: A B

Explanation:

<https://blogs.cisco.com/datacenter/cisco-nx-os-and-puppet-agentless-data-center-automation>

NO.6 A network administrator must create a redundant vHBA for the mission-critical virtual machines (VMs) installed on a Cisco UCS Fabric Interconnect blade server. The VMs access multiple datastores using VSAN55 and VSAN95. The datastore on which the VMs are hosted must be accessible if any of the uplinks goes offline. Which action meets these requirements?

- A. Attach VSAN55 to vHBA1 and VSAN95 to vHBA2.
- B. Assign VSAN55 and VSAN95 to vHBA1 and vHBA2.
- C. Enable failover for the vHBA with VSAN55 and VSAN95 enabled.
- D. Configure load-balancing for vHBAs with VSAN55 and VSAN95 attached.

Answer: B

NO.7 An engineer is designing a Cisco 7000 Series disaster recovery site using the data center interconnect solution to provide gateway redundancy and needs to ensure that devices use gateways in their own data centers.

Which design approach should be used to accomplish this goal?

- A. FHRP localized to its own data center
- B. STP localized to its own data center
- C. CFS localized to its own data center
- D. vPC localized to its own data center

Answer: A

NO.8 An engineer must choose the World Wide Port Name for the Cisco UCS Fibre Channel virtual host bus adapter.

Which identifier must be used?

- A. naa.600a09840691712159764d
- B. fe80::314e:4566:8702:bf3d
- C. iqn.2021-08.com.acme:3xxx
- D. 20:00:00:25:B5:97:c3:ac

Answer: D

NO.9 A network engineer must select a high availability feature for their data center. The solution must ensure network resilience, reduce network instability for Layer 3 routing protocols, and meet these requirements:

- * The device must notify its neighbors when the control plane is undergoing a restart.
- * The solution must suppress routing flaps in case of stateful switchovers.

Which solution must be implemented?

- A. BFD
- B. HSRP
- C. NSF

D. ISSU**Answer:** C**NO.10** Refer to the exhibit.

A high-availability setup for iSCSI is designed with the host running iSCSI software. Each storage port on the MDS exports the same two Fibre Channel target ports with different iSCSI target names. In this design, how many iSCSI sessions are created from the host so that recovery occurs if any component fails?

A. 2**B.** 3**C.** 4**D.** 5**Answer:** C

Explanation:

https://www.cisco.com/en/US/docs/storage/san_switches/mds9000/sw/rel_3_x/configuration/guides/fm_3_2/ciscsi.html

NO.11 The user traffic destined to all web servers located in the data center must pass first through a set of firewalls for deep packet inspection. A network architect must design the Cisco Intelligent Traffic Director (ITD) deployment that meets these requirements:

- * The firewalls are connected to a set of two Cisco Nexus switches to provide stateful handling of traffic.

- * The ITD service is provided for inside and outside segments of the firewall.

Which ITD deployment mode must be implemented to meet these requirements?

A. server load-balancing deployment mode**B.** server vPC deployment mode**C.** one-arm deployment mode**D.** sandwich deployment mode**Answer:** C

NO.12 In this data structure, what is the XML terminology for the currency="usd" code snippet?

```
<? xml version="1.0" encoding="UTF-8"?>
```

```
<ciscopress>
```

```
<book isbn="50581730795252386">
```

```
<title>Routing TCP/IP</title>
```

```
<author>Jeff Doyle</author>
```

```
<category></category>
```

```
<year>2005</year>
```

```
<edition>2</edition>
```

```
<price currency="usd">72</price>
```

```
</book>
```

```
</ciscopress>
```

A. root element end tag**B.** attribute

- C. character
- D. root element start tag

Answer: B

NO.13 An engineer must complete vNIC and vHBA allocations for 16 new servers. All servers currently have the same requirements, but the company wants to be prepared for a future update to add additional vNICs and vHBAs to servers 14, 15, and 16 only. The engineer decided to use service profile templates to complete the task. Which approach must the engineer take?

- A. Create the 16 service profiles via an initial template, and manually update servers 14, 15, and 16 with additional vNIC and vHBA when required.
- B. Create the 16 service profiles via an updating template, and update the template with the additional vNIC and vHBA when required.
- C. Create the 16 service profiles via an initial template, and then update the initial template with additional vNICs and vHBAs for servers 14, 15, and 16.
- D. Create service profiles for servers 1 through 13 via an initial template, and create separate service profiles for servers 14, 15, and 16 via an updating template that includes the additional vNIC and vHBA.

Answer: D

NO.14 Which protocol prevents fiber failures from causing a Layer 2 loop in a dark fiber DCI?

- A. BFD
- B. UDLD
- C. MCP
- D. LLDP

Answer: B

NO.15 What must be configured in Cisco Intersight when Enum is selected as the data type in a workflow input?

- A. Regex
- B. Object Selector
- C. Widget type
- D. Secure

Answer: C

NO.16 An engineer must design a multitenant solution using Cisco 7709 switches. The solution must support separate routing instances, separate spanning tree domains, and separate firewalls for each tenant. Which solution meets these requirements?

- A. CFS
- B. VDC
- C. vPC
- D. VRF

Answer: B

NO.17 A customer must deploy a new Cisco HyperFlex stretched cluster solution to ensure virtual

server availability in case the data center fails. The current network environment provides multiple geographic locations. Which action must be taken to meet these objectives?

- A. Implement the round trip time latency between the sites to be lower than 20 ms
- B. Place an independent witness component at a third site
- C. Deploy the stretch duster sites to be within the distance of 300 miles apart
- D. Configure the cluster with the maximum data replication factor

Answer: C

NO.18 An engineer is implementing a Cisco UCS environment. The system must aggregate all vNICs into a single policy and consistently enforce node disassociation across the cluster. Which two UCS policies meet these requirements? (Choose two.)

- A. scrub policy
- B. vNIC policy
- C. boot policy
- D. firmware policy
- E. LAN connectivity policy

Answer: B E

NO.19 Which type of encoding is used on 8-Gbps links as compared to 10-Gbps links?

- A. 8-Gbps links use 64B/66B encoding, and 10-Gbps links use 8B/10B encoding.
- B. 8-Gbps links use 8B/10B encoding, and 10-Gbps links use 64B/66B encoding.
- C. 8-Gbps links and 10-Gbps links use 8B/10B encoding.
- D. 8-Gbps links and 10-Gbps links use 64B/66B encoding.

Answer: B

Reference: https://www.iol.unh.edu/sites/default/files/knowledgebase/10gec/10GbE_CI49.pdf

NO.20 A Cisco engineer is configuring MPLS VPN BGP at a customer site that is connected to the provider site by more than one path MPLS VPN BGP Local Convergence link protection is enabled. After the engineer installs the main forwarding path and the redundant backup path within the BGP, they assign a unique route distinguisher to each VRF table on all PE devices that serve as a backup to the link. What is a prerequisite for this local convergence to work?

- A. Interautonomous system option A (back-to-back VRF) is active.
- B. BGP must support lossless switchover between operational paths
- C. IP/GRE is enabled.
- D. The system is performing a PE-CE link protection on both ends

Answer: B

NO.21 A company needs a solution to virtualize their legacy desktop computers. The solution must be highly resilient and able to withstand the loss of a data center site. Each compute node requires a minimum of 20 disk drives.

Which solution meets these requirements?

- A. *thin client installed at each user's end station with a separate profile to retrieve sensitive data using the RDP protocol

*solution based on Cisco HX220 compute nodes

B. *data center site with a strict security policy that provides access to users using a bespoke software client

*solution based on Cisco HX240 compute nodes

C. *virtual desktop infrastructure solution installed in multiple data centers that are close to the end users

*solution based on Cisco HX240 compute nodes

D. *dedicated virtual machine per hypervisors for each user in a centralized data center

*solution based on Cisco HX220 compute nodes

Answer: C

NO.22 An engineer must interconnect two geographically separated data centers. The service provide offers a Layer

2 metro Ethernet link. The strict security policy requires that the information that is shared between two sites must be sent encrypted. The application deployed between sites requires a line-rate throughput regardless of the packet size and speed. Which solution meets these requirements?

A. IPsec

B. MACsec

C. L2TPv2

D. L2TPv3

Answer: B

Explanation:

<https://www.cisco.com/c/dam/en/us/td/docs/solutions/Enterprise/Security/MACsec/WP-High-Speed-WAN-Encrypt-MACsec.pdf>

Furthermore, if the deployment requires that all traffic leaving/traversing the router must be encrypted, the overall throughput of the router is now restricted to the performance of the IPsec engine which, in most cases, can be a fraction of the router's aggregate forwarding capabilities. This is a huge factor from an economics perspective of cost per bit through the router and MACsec changes the encryption cost per bit through routing elements. For deployments requiring encryption and the capability of leveraging an Ethernet transport (public or private), **MACsec offers a simplified, line-rate, per port encryption** option for secure next-generation deployments.

NO.23 Which statement describes differences between training and inference in AI learning models?

A. The inference process requires high throughput to enable rapid training on large datasets.

B. The training process is more computationally demanding because it processes new data.

C. The training process is more optimized for low latency, which enables faster analysis of large datasets.

D. The inference process requires continuous model adjustments to maintain accuracy with new data.

Answer: B

NO.24 Drag and drop the data center technologies from the left onto the correct descriptions on the right. Not all technologies are used.

cut-through switching	connects a classical Ethernet vPC domain and a Cisco FabricPath cloud to interoperate
OTV	extends Layer 2 domains across distributed data centers
store-and-forward switching	performs Layer 2 lookup as soon as the destination MAC is received
VPC	two separate control planes, performs device aggregation
VPC+	

Answer:

cut-through switching	VPC+
OTV	OTV
store-and-forward switching	cut-through switching
VPC	VPC
VPC+	
cut-through switching	VPC+
OTV	OTV
store-and-forward switching	cut-through switching
VPC	VPC
VPC+	

NO.25 Which feature must be configured to connect a classical Ethernet network to a data center network so that the data center network appears to be one large switch.

- A. VPC+
- B. UDLD
- C. EVPN
- D. OSPF

Answer: C

Explanation:

A vPC allows links that are physically connected to two different Nexus switches to appear as single portchannel to a server or another switch.

NO.26 An engineer must interconnect customer data centers by using a 10-Gbps. unicast-only, Layer 3 circuit The requirement is to stretch the Layer 2 connection over the tunnel isolate STP traffic and create more than two million logical network segments Much solution meets these requirements?

- A. IPsec over GRE
- B. OTV
- C. dark fiber
- D. VXLANEVPN

Answer: D

NO.27 Drag and drop the configurations from the left onto the correct policies on the right.

Set the number of queues.

Set the RSS hash value.

Assign each vCon to a physical adapter.

Assign adapter order.

vNIC/vHBA Placement Policy

Ethernet Adapter Policy

Answer:

Set the number of queues.

Set the RSS hash value.

Assign each vCon to a physical adapter.

Assign adapter order.

vNIC/vHBA Placement Policy

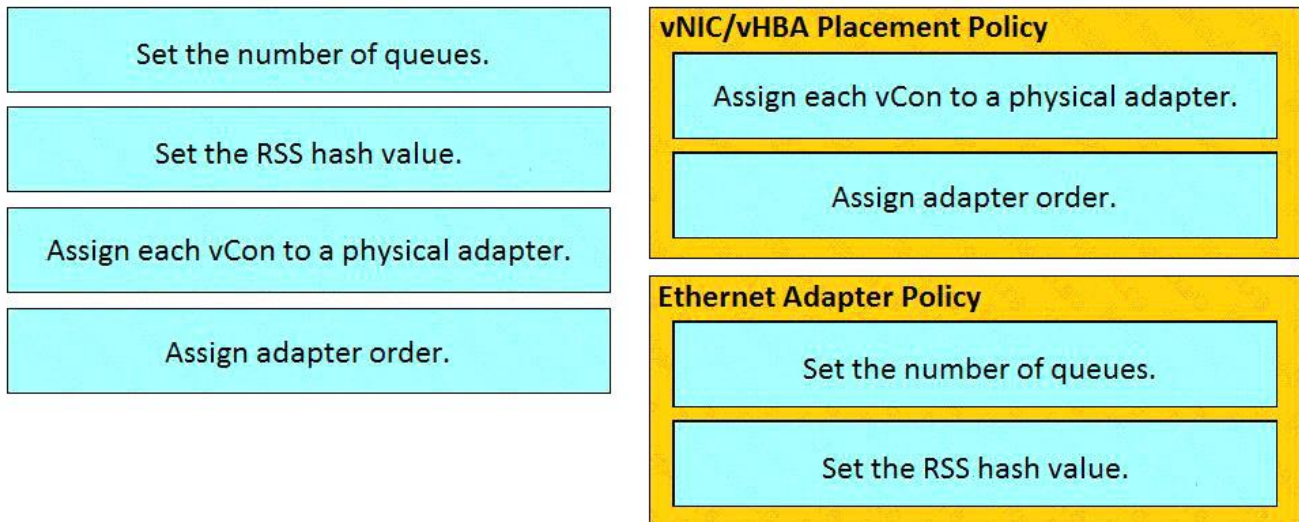
Assign each vCon to a physical adapter.

Assign adapter order.

Ethernet Adapter Policy

Set the number of queues.

Set the RSS hash value.



Reference: https://www.cisco.com/c/en/us/td/docs/unified_computing/ucs/sw/gui/config/guide/2-2/b_UCSM_GUI_Configuration_Guide_2_2/configuring_network_related_policies.html#task_7F03A03C719A44B8ACFAD73AADC73C

NO.28 An organization deploys Cisco UCS-X Series servers in the data center. The deployment must have optimal BIOS configuration to maximize performance for memory-intensive applications. The organization must set the BIOS options to achieve low-latency operation and enhanced memory bandwidth. Which BIOS tuning option on Cisco UCS-X Series servers is needed for memory-intensive workloads?

- A. Set "NUMA Optimization" to enhance memory locality for latency-sensitive applications.
- B. Enable "Processor C-States" for better power efficiency during high-performance workloads.
- C. Disable "Turbo Boost" to stabilize performance and reduce heat generation.
- D. Configure "Virtualization Extensions" to improve performance for hypervisor-based environments.

Answer: A