Cisco

Exam Questions 400-007

Cisco Certified Design Expert (CCDE v3.0) Written Exam

NEW QUESTION 1
Which two mechanisms avoid suboptimal routing in a network with dynamic mutual redistribution between multiple OSPFv2 and EIGRP boundaries? (Choose two.)

A. AD manipulation
B. matching OSPF external routes
C. route tagging
D. route tagging
E. route filtering
F. matching EIGRP process ID

Answer: DE

Explanation:
https://www.cisco.com/c/en/us/support/docs/ip/enhanced-interior-gateway-routing-protocol-eigrp/8606-redist.ht

NEW QUESTION 2
According to the CIA triad principles for network security design, which principle should be priority for a Zero Trust network?

A. requirement for data-in-motion encryption and 2FA authentication
B. requirement for data-at-rest encryption foe user identification within the VPN termination hardware
C. categorization of systems, data, and enterprise BYOD assets that are connected to network zones based on individual privacy needs
D. ensuring that authorized users have high-availability system access from defined zones to defined systems or zones

Answer: A

NEW QUESTION 3
Refer to the exhibit.
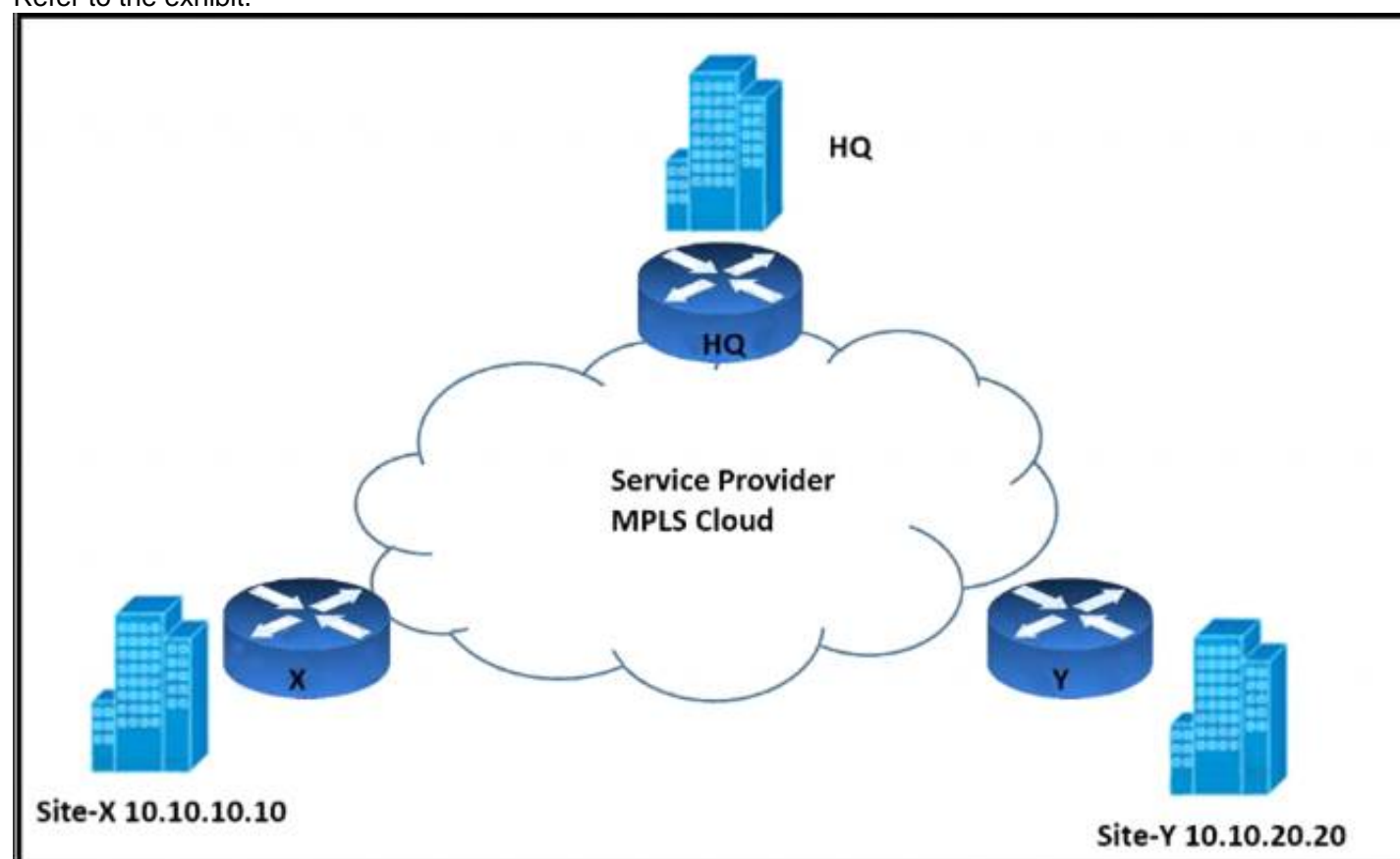
An architect must design an enterprise WAN that connects the headquarters with 22 branch offices. The number of remote sites is expected to triple in the next three years. The final solution must comply with these requirements:

⟩ Only the loopback address of each of the enterprise CE X and Y routers must be advertised to the interconnecting service provider cloud network.

⟩ The transport layer must carry the VPNv4 label and VPN payload over the MP-BGP control plane.

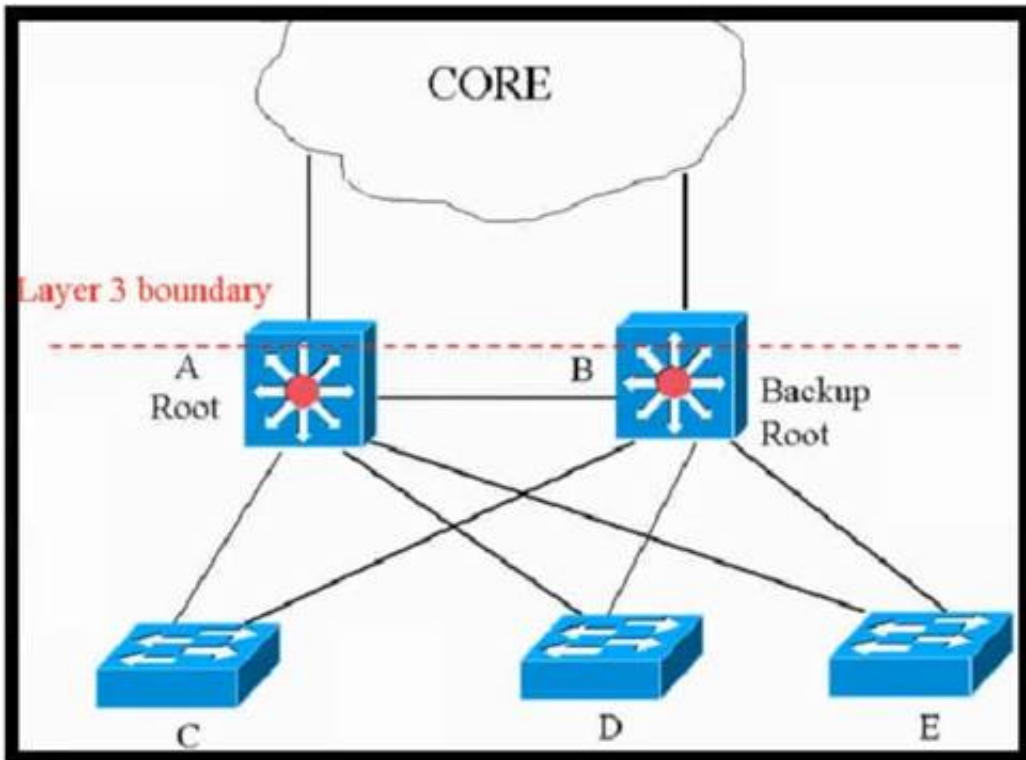⟩ The transport layer must not be under service provider control.

Which enterprise WAN transport virtualization technique meets the requirements?

A. EIGRP Over the Top
B. MPLS over BGP over multipoint GRE
C. DMVPN per VRF
D. point-to-point GRE per VRF

Answer: B

NEW QUESTION 4
Refer to the exhibit.

This network is running legacy STP 802.1 d. Assuming "hello_timer" is fixed to 2 seconds, which parameters can be modified to speed up convergence times after single link/node failure?

A. The transit_delay=5 and dpdu_delay=20 are recommended values, considering helto_timer=2 and specified
B. Only the maximum_transmission_halt_delay and diameter parameters are configurable parameters in 802. to speed up STP convergence process
C. The max_age and forward delay parameters can be adjusted to speed up STP convergence process.
D. Only the transit_delay and bpdu_delay timers are configurable parameters in 802.1d to speed up STP convergence process.

Answer: C

NEW QUESTION 5
A customer migrates from a traditional Layer 2 data center network into a new SDN-based spine-and-leaf VXLAN EVPN data center within the same location The networks are joined to enable host migration at Layer 2 What is the final migration step after hosts have physically migrated to have traffic flowing through the new network without changing any host configuration?

A. Shut down legacy Layer 3 SVI
B. clear ARP caches on all hosts being migrated and then configure the legacy VRRP address onto new VXLAN core switches
C. Increase VRRP priorities on new infrastructure over legacy VRRP values, then shut down legacy SVIs
D. Shut down legacy infrastructure to allow VXLAN gateways to become active
E. Shut down legacy Layer 3 SVIs and activate new preconfigured Layer 3 SVIs on VXLAN

Answer: D

NEW QUESTION 6
Which three elements help network designers to construct secure systems that protect information and resources (such as devices, communication, and data) from unauthorized access, modification, inspection, or destruction? (Choose three.)

A. confidential
B. serviceability
C. reliability
D. availability
E. integrity
F. scalability

Answer: ADE

NEW QUESTION 7
Company XYZ connects its sites over a private WAN. Their overlay network is running a DMVPN setup where the headquarters site is the hub. The company is planning on implementing multicast routing on the network. What should be used in the multicast routing design?

A. PIM dense mode with RP located at the hub
B. PIM sparse mode with RP located at each remote site
C. PIM sparse mode with RP located at the hub
D. PIM dense mode with RP located at each remote site

Answer: C

Explanation:
https://www.ccexpert.us/routing-switching-2/dynamic-multipoint-vpn.html

NEW QUESTION 8
What statement describes the application layer as defined in the software-defined networking architecture?

A. This layer is responsible for collecting the network status such as network usage and topology.
B. This layer contains programs that communicate their desired network behavior to controllers.
C. This layer is responsible for handling packets based on the rules provided by the controller.
D. This layer processes the instructions and requirements sent by networking components.

Answer: B

NEW QUESTION 9
You have been asked to design a remote access VPN solution to support up to 2000 devices. You must ensure that only corporate assets are allowed to connect to the VPN, and users must authenticate to gain access of their based on their user role. Users must use a password that they are already using to access existing applications . A user may not always use the same device to access the VPN. Which two options combined meet the requirements? (Choose two)

A. Use local usernames and passwords on the VPN device
B. Deploy a central authentication directory that users can be authenticated and authorized against
C. Deploy certificates that are unique to each user
D. Deploy an IPsec VPN solution
E. Deploy certificates that are unique to each device
F. Deploy a SSL VPN solution

Answer: BF

NEW QUESTION 10
What is a disadvantage of the traditional three-tier architecture model when east west traffic between different pods must go through the distribution and core layers?

A. low bandwidth
B. security
C. scalability
D. high latency

Answer: A

NEW QUESTION 10
Company XYZ uses an office model where the employees can use any open desk and plug their laptops in. They want to authenticate the end users using their domain username and password before allowing them access to the network. The design must also accommodate the ability of controlling traffic within the same group or subnet if a macro (or micro) segmentation-based model is adopted in the future. Which protocol can be recommended for this design to authenticate end users?

A. LDAP
B. EAP
C. TACACS+
D. RADIUS

Answer: D

Explanation:
https://www.networkstraining.com/what-is-cisco-ise/

NEW QUESTION 15
A network architect must redesign a service provider edge, where multiservice and multitenant PEs are currently present. Which design feature should be minimized in the new design to achieve reliability?

A. bridging
B. fate sharing
C. redundancy
D. unicast overlay routing

Answer: B

NEW QUESTION 17
As part of workspace digitization, a large enterprise has migrated all their users to Desktop as a Sen/ice (DaaS), by hosting the backend system in their on-premises data center. Some of the branches have started to experience disconnections to the DaaS at periodic intervals, however, local users in the data center and head office do not experience this behavior. Which technology can be used to mitigate this issue?

A. tail drop
B. traffic shaping
C. WRED
D. traffic policing

Answer: B

Explanation:
Traffic Shaping does help with congestion and better bandwidth utilization over the WAN.

NEW QUESTION 19
You are designing the routing design for two merging companies that have overlapping IP address space. Which of these must you consider when developing the routing and NAT design?

A. Local to global NAT translation is done after routing
B. Global to local NAT translation is done before routing.
C. Local to global NAT translation is done before policy-based routing

D. Global to local NAT translation is done after policy-based routing.

Answer: B

NEW QUESTION 24
Which two control plane policer designs must be considered to achieve high availability? (Choose two.)

A. Control plane policers are enforced in hardware to protect the software path, but they are hardware platform dependent in terms of classification ability.
B. Control plane policers are really needed only on externally facing devices.
C. Control plane policers can cause the network management systems to create false alarms.
D. Control plane policers must be processed before a forwarding decision is made.
E. Control plane policers require that adequate protocols overhead are factored in to allow protocol convergence.

Answer: AD

NEW QUESTION 29
Drag and drop the design characteristics from the left onto the correct network filter techniques on the right. Not all options are used.

A. Mastered
B. Not Mastered

Answer: A

Explanation:

NEW QUESTION 30
A customer asks you to perform a high level review of their upcoming WAN refresh for remote sites The review is specially focused on their retail store operations consisting of 500+ locations connected via mutlipoint IPsec VPN solution. Which routing protocol would be valid but would also be the most restrictive for the expansion of this deployment model?

A. EIGRP
B. IS-IS
C. OSPF
D. BGP

Answer: B

NEW QUESTION 31
In search of a system capable of hosting, monitoring compiling. and testing code in an automated way, what can be recommended to the organization?

A. Jenkins
B. Ansible
C. Perl
D. Chef

Answer: A

NEW QUESTION 34
Company XYZ wants to redesign the Layer 2 part of their network and wants to use all available uplinks for increased performance. They also want to have end host reachability supporting conversational learning. However, due to design constraints, they cannot implement port-channel on the uplinks. Which other technique can be used to make sure the uplinks are in active/active state?

A. TRILL
B. LISP
C. MSTP
D. switch stack

Answer: B

NEW QUESTION 39
Company XYZ is designing the IS-IS deployment strategy for their multiarea IS-IS domain. They want IS-IS neighbour relationships to be minimized on each network segment and want to optimize the size of the IS-IS LSDB on each router. Which can design can be used to meet these requirements?

A. Design all routers as Level 2 router
B. Set the links between the routers as Level 1 with the area
C. Design the network so that the routers connecting to other areas are Level 2 routers and internal routers are Level 1
D. Design the network so that all routers are Level 1 routers
E. Design the network so that the routers connecting to other areas are Level 1/Level 2 routers and internal routers are Level 1

Answer: D

NEW QUESTION 44
A network attacker exploits application flaws to compromise critical systems in the organization with these objectives:
• Obtain sensitive data and export the data out of the network.
• Compromise developer and administrator credentials to potentially
What is the next step after application discovery is completed in Zero Trust networkings

A. Establish visibility and behavior modeling
B. Enforce policies and microsegmentation.
C. Assess real-time security health.
D. Ensure trustworthiness of systems.

Answer: A

Explanation:
https://www.cisco.com/c/en/us/solutions/collateral/enterprise/design-zone-security/zt-arch-guide.html

NEW QUESTION 48
Company XYZ wants to deploy OSPF. The design plan requires that two OSPF networks be mutually redistributed at multiple locations and ensure end-to-end connectivity to all of the company's networks Which technology can be used to fulfill the requirements while avoiding the creation of routing loops?

A. Create a virtual link between ASBRs.
B. Change the router ID for both ASBRs.
C. Redistribute routes as external type 2 routes.
D. Use route maps on ASBRs to filter routes with tags so they are not redistributed.

Answer: D

Explanation:
https://www.cisco.com/c/en/us/support/docs/ip/open-shortest-path-first-ospf/4170-ospfprocesses.html

NEW QUESTION 51
What are two examples of business goals to be considered when a network design is built? (Choose two.)

A. standardize resiliency
B. minimize operational costs
C. integrate endpoint posture
D. ensure faster obsolescence
E. reduce complexity

Answer: BE

NEW QUESTION 56
An enterprise has identified these causes for inefficient CAPEX spending:

❯ CAPEX planning is driven by technology and not by business objectives.

❯ The CAPEX planning team lacks the data it needs to perform due diligence tasks.

❯ The organizational structure lacks sufficient accountability and incentives.
Which corporate cultural change contributes to improving the effectiveness of CAPEX spending?

A. Build a financial control function that delivers high-quality reports on operational expenses for business insight and financial reporting.
B. CxO-level staff must have a full technical understanding but the should not trust their technical leaders fully.
C. Adopt new organizational models that promote real accountability for RO
D. not just revenu
E. EBITDA, and cash.
F. Marketing and product management divisions must reduce their CAPEX budgets significantly to drive the change.

Answer: C

NEW QUESTION 61
You have been asked to design a high-density wireless network for a university campus. Which two principles would you apply in order to maximize the wireless network capacity? (Choose two.)

A. Implement a four-channel design on 2.4 GHz to increase the number of available channels
B. Choose a high minimum data rate to reduce the duty cycle.
C. increases the number of SSIDs to load-balance the client traffic.
D. Make use of the 5-GHz band to reduce the spectrum utilization on 2.4 GHz when dual-band clients are used.
E. Enable 802.11n channel bonding on both 2.4 GHz and 5 GHz to increase the maximum aggregated cell throughput.

Answer: BD

NEW QUESTION 62
What is the most important operational driver in building a resilient and secure modular network design?

A. Dependencies on hardware or software that is difficult to scale
B. Minimize app downtime
C. Reduce the frequency of failures requiring human intervention
D. Increase time spent on developing new features

Answer: B

NEW QUESTION 63
Which parameter is the most important factor to consider when deciding service placement in a cloud solution?

A. data replication cost
B. application structure
C. security framework Implementation time
D. data confidentiality rules

Answer: D

NEW QUESTION 67
In an OSPF network with routers connected together with Ethernet cabling, which topology typically takes the longest to converge?

A. partial mesh
B. full mesh
C. ring
D. squared
E. triangulated

Answer: B

NEW QUESTION 71
A network design includes a long signaling delay in notifying the Layer 3 control plane that an interface has failed Which two of these actions would reduce that delay? (Choose two.)

A. Increase network stability.
B. Reduce the time for the network to reconverge.
C. Increase the notification of interface flaps.
D. Enable lower data link layer recovery systems to have an opportunity to restore the interface

Answer: BD

NEW QUESTION 72
Refer to the exhibit.

	Equipment Cost	ISP Cost	Licenses Cost
SD-WAN over L3VPN	$$	$$	$$$
SD-WAN over L2VPN	$$	$	$$$
Managed SD-WAN	$	$$$	-
DMVPN over L3VPN	$$	$$	$

The WAN network of the General Bank of Greece has experienced several outages It takes too long to activate a new branch site The networking department of the bank plans to upgrade the legacy end-of-life WAN network with a new flexible manageable, and scalable in-house solution The number of branches will increase exponentially in the next fiscal year The CTO states that the bank's mam goal is OPEX reduction The network engineering team prepares a table to evaluate the available options Which WAN technology can be used for the solution?

A. DMVPN over L3VPN
B. Managed SD-WAN
C. SD-WAN over L3VPN
D. SD-WAN over L2VPN

Answer: B

NEW QUESTION 75
Company XYZ Is running a redundant private WAN network using OSPF as the underlay protocol The current design accommodates for redundancy In the network, but it Is taking over 30 seconds for the network to reconverge upon failure Which technique can be Implemented In the design to detect such a failure in a subsecond?

A. STP
B. fate sharing
C. OSPF LFA
D. BFD
E. flex links

Answer: D

NEW QUESTION 78
Company XYZ is planning to deploy primary and secondary (disaster recovery) data center sites. Each of these sites will have redundant SAN fabrics and data protection is expected between the data center sites. The sites are 100 miles (160 km) apart and target RPO/RTO are 3 hrs and 24 hrs, respectively. Which two considerations must Company XYZ bear in mind when deploying replication in their scenario? (Choose two.)

A. Target RPO/RTO requirements cannot be met due to the one-way delay introduced by the distance between sites.
B. VSANs must be routed between sites to isolate fault domains and increase overall availability.
C. Synchronous data replication must be used to meet the business requirements
D. Asynchronous data replication should be used in this scenario to avoid performance impact in the primary site.
E. VSANs must be extended from the primary to the secondary site to improve performance and availability.

Answer: CD

Explanation:
synchronous data replication must be used to meet the business requirements, is incorrect. As described above, asynchronous replication would be a better choice in this scenario due to the distance between the data center sites and the target RPO/RTO requirements.
asynchronous data replication should be used in this scenario to avoid performance impact in the primary site, is correct. Asynchronous replication would allow Company XYZ to meet the target RPO/RTO requirements while avoiding the performance impact of synchronous replication.

NEW QUESTION 81
Which actions are performed at the distribution layer of the three-layer hierarchical network design model? (Choose two)

A. Fast transport
B. Reliability
C. QoS classification and marking boundary
D. Fault isolation
E. Redundancy and load balancing

Answer: DE

NEW QUESTION 83
Drag and drop the characteristics from the left onto the corresponding network management options on the right.

protocol based on HTTP for configuring data defined in YANG and supports operations such as GET, PUT, POST, PATCH, and DELETE	NETCONF
provides mechanisms to install, manipulate, and delete the configuration of network devices; uses XML for data encoding and the operation is realized as RPC	RESTCONF
application program interface that uses HTTP requests to GET, PUT, POST, and DELETE data	ANSIBLE
open-source software provisioning, configuration management, and application-deployment tool	YANG
data modeling language used to model configuration data, state data, remote procedure calls, and notifications for network management protocols	REST API

A. Mastered
B. Not Mastered

Answer: A

Explanation:
Text Description automatically generated

NEW QUESTION 87
You are designing a network for a branch office. In order to improve convergence time, you are required to use the BFD feature Which four routing protocols can you use to facilitate this? (Choose four.)

A. IS-IS
B. static
C. RIP
D. EIGRP
E. BGP

Answer: ABDE

NEW QUESTION 91
A multicast network is sing Bidirectional PIM. Which two combined actions achieve high availability so that two RPs within the same network can act in a redundant manner? (Choose two)

A. Use two phantom RP addresses
B. Manipulate the administration distance of the unicast routes to the two RPs
C. Manipulate the multicast routing table by creating static mroutes to the two RPs
D. Advertise the two RP addresses in the routing protocol
E. Use anycast RP based on MSDP peering between the two RPs
F. Control routing to the two RPs through a longest match prefix

Answer: AF

Explanation:
https://community.cisco.com/t5/networking-knowledge-base/rp-redundancy-with-pim-bidir-phantom-rp/ta-p/31

NEW QUESTION 94
Company ABC uses IPv4-only. Recently they started deploying new endpoint devices. For operational reasons, IPv6 cannot be disabled on these new endpoint devices. Which security measure prevents the new endpoint from learning an IPv6 prefix from an attacker?

A. Source Guard and Prefix Guard
B. Router Advertisement Guard
C. Prefix Guard
D. Secure Neighbor Discovery

Answer: B

NEW QUESTION 97
A product manufacturing organization is integrating cloud services into their IT solution The IT team is working on the preparation phase of the implementation approach, which includes the Define Strategy step. This step defines the scope of IT, the application, and the service What is one topic that should be considered in the Define Strategy step?

A. financial and governance models
B. innovate and align with business according to volume
C. due diligence and financial scenarios
D. contingency exit strategy steps

Answer: D

NEW QUESTION 98
An enterprise that runs numerous proprietary applications has major issues with its on-premises server estate hardware, to the point where business-critical functions are compromised. The enterprise accelerates plans to migrate services to the cloud. Which cloud service should be used if the enterprise wants to avoid hardware issues yet have control of its applications and operating system?

A. SaaS
B. PaaS
C. IaaS
D. hybrid cloud

Answer: C

NEW QUESTION 99
Which feature is supported by NETCONF but is not supported by SNMP?

A. distinguishing between configuration data and operational data
B. taking administrative actions
C. collecting the status of specific fields
D. changing the configuration of specific fields

Answer: A

NEW QUESTION 104
What are two top cloud-native security challenges faced by today's cloud-oriented organizations? (Choose two.)

A. establishing user roles
B. polymorphism
C. lack of visibility and tracking
D. increased attack surface
E. user credential validation

Answer: CD

NEW QUESTION 108
Company XYZ branch offices connect to the headquarter sites using two links, MPLS and Internet. The company wants to design the traffic flow so that voice traffic goes through the MPLS link and all other traffic uses either the MPLS link or the Internet link. Which technique can the company use in their design to ensure that the traffic is not process switched?

A. policy-based routing
B. virtual links
C. visualization
D. floating static route

Answer: A

NEW QUESTION 112
Software-defined networking architecture is used for cost-effective, adaptable, and easily manageable applications. In which two software-defined networks is SDN commonly used? (Choose two.)

A. wide area network
B. mobile network
C. metro network
D. application network
E. control network

Answer: AE

NEW QUESTION 116
Your network operations team is deploying Access Control Lists (ACLs) across your Internet gateways They wish to place an ACL inbound on the Internet gateway interface facing the core network (the "trusted" interface). Which IP address would the ACL need for traffic sourced from the inside interface, to match the source address of the traffic?

A. inside global
B. outside global
C. inside local
D. outside local

Answer: C

NEW QUESTION 119
While designing a switched topology, in which two options is UplinkFast recommended? (Choose two)

A. when switches of different spanning-tree types are connected (for exampl
B. 802.1d connecting to 802.1w)
C. on distribution layer switches
D. when hello timers are changed to more aggressive values
E. on access layer switches
F. on the core switches

Answer: AD

NEW QUESTION 121
Company XYZ wants to secure the data plane of their network. Which two technologies can be included in the security design? (Choose two)

A. DAI
B. IP Source Guard
C. BEEP
D. CPPr
E. MPP

Answer: AB

NEW QUESTION 126
Which two benefits can software defined networks provide to businesses? (Choose two.)

A. provides additional redundancy
B. decentralized management
C. reduced latency
D. enables innovation
E. reduction of OpEx/CapEx
F. meets high traffic demands

Answer: DE

NEW QUESTION 128
What are two advantages of controller-based networks versus traditional networks? (Choose two.)

A. the ability to have forwarding tables at each device
B. more flexible configuration per device
C. more consistent device configuration
D. programmatic APIs that are available per device
E. the ability to configure the features for the network rather than per device

Answer: CE

NEW QUESTION 132
Which two statements describe network automation and network orchestration? (Choose two.)

A. Network automation does not provide governance or policy management.
B. Network automation spans multiple network services, vendors, and environments.
C. Network orchestration is done through programmatic REST APIs enabling automation across devices and management platforms.
D. Provisioning network services is an example of network automation.
E. Network orchestration is used to run single, low-level tasks without human intervention

Answer: AC

NEW QUESTION 134
Customer XYZ network consists of an MPLS core. IS-IS running as IGP a pair of BGP route reflectors for route propagation, and a few dozens of MPLS-TE tunnels for specific tactical traffic engineering requirements. The customer's engineering department has some questions about the use of the Overload Bit in the IS-IS networks and how it could be used to improve their current network design. Which two concepts about the Overload Bit are true? (Choose two.)

A. It can be set on a router during the startup process for a fixed period of time
B. Networks advertised within the LSPs of the respective node will become unreachable
C. It forces the midpoint MPLS-TE node to reoptimize the primary tunnels going through the OL node.
D. It can be set on a router until other interacting protocols have signaled convergence.
E. It is not recommended on BGP Route Reflectors

Answer: AD

NEW QUESTION 135
A green data center is being deployed and a design requirement is to be able to readily scale server virtualization Which IETF standard technology can provide this requirement?

A. data center bridging
B. unified fabric
C. Transparent Interconnection of Lots of Links

D. fabric path

Answer: C

NEW QUESTION 139
What is a characteristic of a secure cloud architecture model?

A. limited access to job function
B. dedicated and restricted workstations
C. multi-factor authentication
D. software-defined network segmentation

Answer: C

NEW QUESTION 144
Company XYZ wants to use the FCAPS ISO standard for network management design. The focus of the design should be to monitor and keep track of any performance issues by continuously collecting and analyzing statistical information to monitor, correct, and optimize any reduced responsiveness across the network. Which layer accomplishes this design requirement?

A. fault management
B. accounting management
C. performance management
D. security management

Answer: C

NEW QUESTION 148
A customer migrates from a traditional Layer 2 data center network into a new SDN-based. spine-and-leaf VXLAN EVPN data center within the same location. The networks are joined to enable host migration at Layer 2 Which activity should be completed each time a legacy network is migrated?

A. The migrated VLAN should be pruned from the Layer 2 interconnects.
B. The migrated network should have a VXLAN VNID configured within the new network.
C. The migrated network should be advertised to the EVPN network as a Type 2 network.
D. The migrated network should be added to the EVPN BGP routing.

Answer: C

NEW QUESTION 150
What are two descriptions of network optimization? (Choose two.)

A. maintain high availability
B. proactive network management
C. network redesign
D. network health maintenance
E. identify network requirements

Answer: AD

NEW QUESTION 152
The major business applications of an enterprise are largely monolithic and hard-coded As part of a major modernization and overhaul of the applications the goal is to move to a modular and containerized application architecture mode At the same time decoupling from the hardware is desired to move to an on-demand provisioning However the CyberOps team mandated that the final architecture must provide the same security levels as an air-gapped data center. Which cloud architecture meets these requirements?

A. IaaS
B. private cloud
C. PaaS
D. hybrid cloud
E. public cloud

Answer: B

NEW QUESTION 154
A business requirement stating that failure of WAN access for dual circuits into an MPLS provider for a Data Centre cannot happen due to related service credits that would need to be paid has led to diversely routed circuits to different points of presence on the providers network? What should a network designer also consider as part of the requirement?

A. Provision of an additional MPLS provider
B. Out of band access to the MPLS routers
C. Ensuring all related remote branches are dual homed to the MPLS network
D. Dual PSUs & Supervisors on each MPLS router

Answer: A

NEW QUESTION 159

Company XYZ has implemented policy-based routing in their network. Which potential problem must be kept in mind about network reconvergence and PBR?

A. It can limit network scalability
B. It can create microloops during reconvergence
C. It increases convergence time.
D. It reduces convergence time.

Answer: B

NEW QUESTION 164
Which DCI technology utilizes a "flood and learn" technique to populate the Layer2 forwarding table?

A. LISP
B. OTV
C. VPLS
D. EVPN

Answer: C

NEW QUESTION 168
Company XYZ has two routing domains in their network, EIGRP and OSPF. The company wants to provide full reachability between the two domains by implementing redistribution on a router running both protocols. They need to design the redistribution in a way that the OSPF routers will see link costs added to external routes. How must the redistribution strategy be designed for this network?

A. Redistribute using metric type 2 into OSPF.
B. Redistribute using metric type 1 into OSPF.
C. Redistribute using metric type 1 into EIGRP.
D. Redistribute using metric type 2 into EIGRP.

Answer: B

Explanation:
 https://www.ciscopress.com/articles/article.asp?p=27573&seqNum=4#:~:text=Routes%20are%20redistributed%

NEW QUESTION 170
Which function is performed at the access layer of the three-layer hierarchical network design model?

A. fault isolation
B. QoS classification and marking boundary
C. reliability
D. fast transport
E. redundancy and load balancing

Answer: B

NEW QUESTION 174
Which two advantages of using DWDM over traditional optical networks are true? (Choose two.)

A. inherent topology flexibility and service protection provided without penalty through intelligent oversubscription of bandwidth reservation
B. ability to expand bandwidth over existing optical Infrastructure
C. inherent topology flexibility with built-in service protection
D. inherent topology flexibility with intelligent chromatic dispersion
E. inherent topology flexibility with a service protection provided through a direct integration with an upper layer protocol

Answer: BC

NEW QUESTION 178
A BGP route reflector in the network is taking longer than expected to coverage during large network changes. Troubleshooting shows that the router cannot handle all the TCP acknowledgements during route updates. Which action can be performed to tune the device performance?

A. Increase the size of the hold queue.
B. Increase the size of the large buffers.
C. Decrease the size of the small buffers.
D. Increase the keepalive timers for each BGP neighbor.

Answer: A

NEW QUESTION 183
Which tool automates network implementation activities and shortens the implementation lifecycle?

A. LISP
B. Java
C. Conclusion
D. Python

Answer: D

NEW QUESTION 185
Company XYZ asks for design recommendations for Layer 2 redundancy. The company wants to prioritize fast convergence and resiliency elements. In the design. Which two technologies are recommended? (Choose two.)

A. Design MLAG/MC-LAG into the network wherever possible.
B. Configure DHCP snooping on the switches.
C. Use root guard.
D. Use BPDU guard.
E. Use UniDirectional Link Detection.

Answer: AE

NEW QUESTION 189
A business customer deploys workloads in the public cloud. Now the customer network faces governance issues with the flow of IT traffic and must ensure the security of data and intellectual property. Which action helps to identify the issue for further resolution?

A. Set up a secure tunnel from customer routers to ensure that traffic is protected as it travels to the cloud service providers.
B. Send IPFIX telemetry data from customer routers to a centralized collector to identify traffic to cloud service providers
C. Build a zone-based firewall policy on Internet edge firewalls that collects statistics on traffic sent to cloud service providers
D. Apply workload policies that dictate the security requirements to the workloads that are placed in the cloud.

Answer: B

NEW QUESTION 192
Which action must be taken before new VoIP systems are implemented on a network to ensure that the network is ready to handle the traffic?

A. Evaluate bandwidth utilization and connection quality
B. Enable special requirements such as direct DID lines on pickup
C. Make recommendations to limit the size of the half-open session table on routers
D. Check if anomaly detection is enabled for SIP and H.323 on Layer 3 devices

Answer: B

NEW QUESTION 197
Which three components are part of the foundational information security principles of the CIA triad? (Choose three.)

A. cryptography
B. confidentiality
C. authorization
D. identification
E. integrity
F. availability

Answer: BEF

NEW QUESTION 200
The network team in XYZ Corp wants to modernize their infrastructure and is evaluating an implementation and migration plan to allow integration MPLS-based, Layer 2 Ethernet services managed by a service provider to connect branches and remote offices. To decrease OpEx and improve
response times when network components fail, XYZ Corp decided to acquire and deploy new routers. The network currently is operated over E1 leased lines (2 Mbps) with a managed CE service provided by the telco.
Drag and drop the implementation steps from the left onto the corresponding targets on the right in the correct order.

Activation of the MPLS-based L2VPN service.	Step 1
Monitor performance of the Ethernet service for a predefined period of time.	Step 2
Decomission E1 leased line.	Step 3
Deployment of new branch routers.	Step 4
Test and validation of SLA parameters in the L2VPN.	Step 5
Migrate E1 to the new Ethernet service.	Step 6

A. Mastered
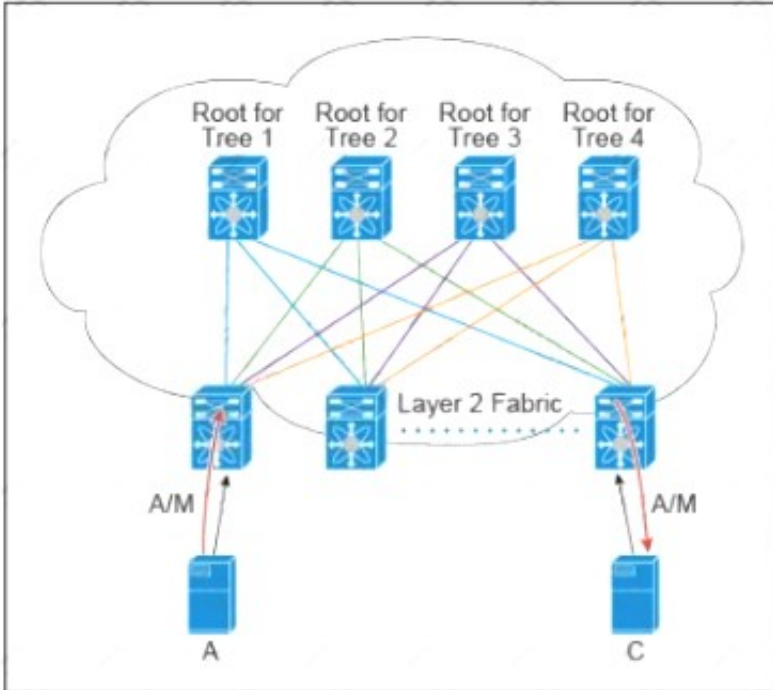B. Not Mastered

Answer: A

Explanation:
Table Description automatically generated

NEW QUESTION 201
Refer to the exhibit.

There are multiple trees in the Cisco FabricPath All switches in the Layer 2 fabric share the same view of each tree. Which two concepts describe how the multicast traffic is load-balanced across this topology? (Choose two)

A. A specific (S.G) traffic is not load-balanced
B. All trees are utilized at the same level of the traffic rate
C. Every leaf node assigns the specific (S.G) to the same tree.
D. A specific (S.G) multicast traffic is load-balanced across all trees due to better link utilization efficiency.
E. The multicast traffic is generally load-balanced across all trees

Answer: BD

NEW QUESTION 205
Refer to the exhibit.
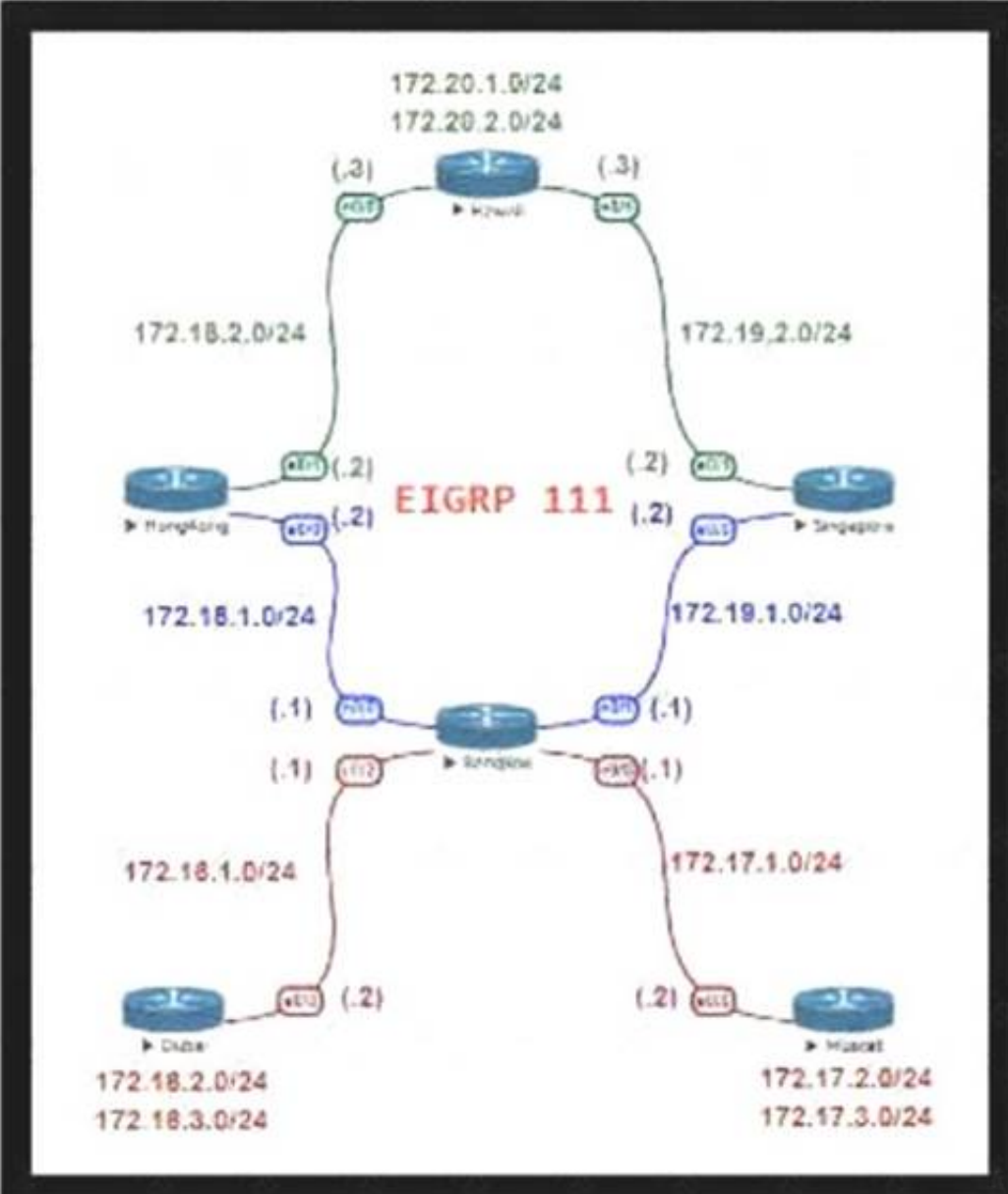
For Company XYZ Bangkok is using ECMP to reach the 172 20 2 0/24 network The company wants a design that would allow them to forward traffic from 172 16 2 0/24 toward 172 20 2 0/24 via the Singapore router as the preferred route The rest of the traffic should continue to use ECMP Which technology fulfills this design requirement?

A. policy-based routing
B. route summarization
C. unequal-cost load balancing using variance
D. LFA

Answer: A

NEW QUESTION 206
What is an architectural framework created by ETSI that defines standards to decouple network functions from proprietary hardware-based appliances and have them run in software on standard x86 servers?

A. NPIV
B. NFVIS
C. NFV
D. VNF

Answer: C

NEW QUESTION 211
What are two key design principles when using a hierarchical core-distribution-access network model? (Choose two)

A. A hierarchical network design model aids fault isolation
B. The core layer is designed first, followed by the distribution layer and then the access layer
C. The core layer provides server access in a small campus.
D. A hierarchical network design facilitates changes
E. The core layer controls access to resources for security

Answer: AD

NEW QUESTION 212
Which two aspects are considered when designing a dual hub dual DMVPN cloud topology? (Choose two)

A. will only work with single-tier headend architecture
B. hub sites must connect to both DMVPN clouds
C. recommended for high availability
D. spoke-to-spoke traffic will transit the hub unless spokes exchange dynamic routing directly
E. requires all sites to have dual Internet connections

Answer: AC

NEW QUESTION 216
An existing wireless network was designed to support data traffic only. You must now install context Aware services for location tracking changes must be applied to the existing wireless network to increase the location accuracy? (Chose two)

A. Add access points along the perimeter of the coverage area.
B. Increase the access point density to create an average inter-access point distance of less than 40 feet or 12.2 meters
C. Use directional antennas to provide more cell overlapping
D. Install additional access points in monitor mode where the co-channel interference would otherwise be affected
E. Fine tune the radio configuration of the access point to have a higher average transmission power to achieve better coverage

Answer: BE

NEW QUESTION 218
Refer to the table.

CONNECTIVITY	CAPEX	OPEX ANNUAL	INSTALLATION FEE	TERM
DWDM over dark fiber	$200,000	$100,000	$30,000	12 months
CWDM over dark fiber	$150,000	$100,000	$25,000	18 months
MPLS wires only	$50,000	$180,000	$5,000	12 months
Metro Ethernet	$65,000	$100,000	$5,000	36 months

A customer investigates connectivity options for a DCI between two production data centers to aid a
large-scale migration project. The migration is estimated to take 20 months to complete but might extend an additional 10 months if issues arise. All connectivity options meet the requirements to migrate workloads. Which transport technology provides the best ROI based on cost and flexibility?

A. CWDM over dark fiber
B. MPLS
C. DWDM over dark fiber
D. Metro Ethernet

Answer: D

NEW QUESTION 222

Company XYZ has a new network based on IPv6. Some of the subnets that they are planning to use will be confidential and need an addressing scheme that confines them to the local campus network. Which type of IPv6 addresses can be used for these networks in the IPv6 addressing design?

A. local addresses
B. private addresses
C. link-local addresses
D. unique local addresses

Answer: D

NEW QUESTION 225
Which two statements describe the functionality of OSPF packet-pacing timers? (Choose two) The group-pacing timer controls the interval that is used for group and individual LSA refreshment

A. OSPF flood-pacing timers allow dynamic control of the OSPF transmission queue size
B. OSPF retransmission-pacing timers allow control of interpacket spaang between consecutive link-state update packets in the OSPF retransmission queue.
C. OSPF retransmission-pacing timers allow control of packet interleaving between nonconsecutive link-state update packets in the OSPF retransmission queue.
D. OSPF flood-pacing timers allow control of interpacket spacing between consecutive link-state update packets in the OSPF transmission queue

Answer: BD

NEW QUESTION 228
An enterprise requires MPLS connected branches to access cloud-based Microsoft 365 services over an SD-WAN solution. Internet access Is available only at dual regional hub sites that are connected to the MPLS network. Which connectivity method provides an optimum access method to the cloud-based services If one ISP suffers loss or latency?

A. Cloud onRamp gateway site
B. Cloud onRamp SWG
C. Cloud onRamp
D. Cloud onRamp SaaS

Answer: D

Explanation:
https://www.cisco.com/c/en/us/td/docs/routers/sdwan/configuration/cloudonramp/vedge-20-x/cloud-onramp-boo

NEW QUESTION 233
Which mechanism enables small, unmanaged switches to plug into ports of access switches without risking switch loops?

A. PortFast
B. UDLD
C. Root guard
D. BPDU guard

Answer: D

NEW QUESTION 238
Which solution component helps to achieve rapid migration to the cloud for SaaS and public cloud leveraging SD-WAN capabilities?

A. service-oriented cloud architecture
B. Cloud onramp
C. cloud registry
D. microservices in the cloud

Answer: B

NEW QUESTION 242
An external edge router provides connectivity from a service provider to an enterprise Which two Internet edge best practices meet compliance regulations'? (Choose two)

A. Implement filtenng to control traffic that is sourced from the infrastructure IP space.
B. Enable and use only secure protocols.
C. Send logs to a centralized logging collection server.
D. Implement EBGP to advertise all owned IP blocks.
E. Use login banners and interface access lists to restrict administrative access to the system

Answer: BE

NEW QUESTION 244
Which BGP feature provides fast convergence?

A. BGP PIC |
B. BGP-EVPN
C. BGP FlowSpec
D. BGP-LS

Answer:

A

NEW QUESTION 247
A Tier-3 Service Provider is evolving into a Tier-2 Service Provider due to the amount of Enterprise business it is receiving The network engineers are re-evaluating their IP/MPLS design considerations in order to support duplicate/overlapping IP addressing from their Enterprise customers within each Layer3 VPN. Which concept would need to be reviewed to ensure stability in their network?

A. Assigning unique Route Distinguishers
B. Assigning unique Route Target ID'S
C. Assigning unique IP address space for the Enterprise NAT/Firewalls
D. Assigning unique VRF ID's to each L3VPN

Answer: A

NEW QUESTION 248
Which service abstracts away the management of the operating system, middleware, and runtime?

A. IaaS
B. PaaS
C. SaaS
D. BMaaS

Answer: B

Explanation:
IaaS, PaaS, and SaaS each offer a progressive layer of abstraction after that. IaaS abstracts away the physical compute, network, storage, and the technology needed to virtualize those resources. PaaS goes a step further and abstracts away the management of the operating system, middleware, and runtime.
https://www.ibm.com/topics/iaas#:~:text=IaaS%20abstracts%20away%20the%20physical,system%2C%20midd

NEW QUESTION 253
Refer to the exhibit.
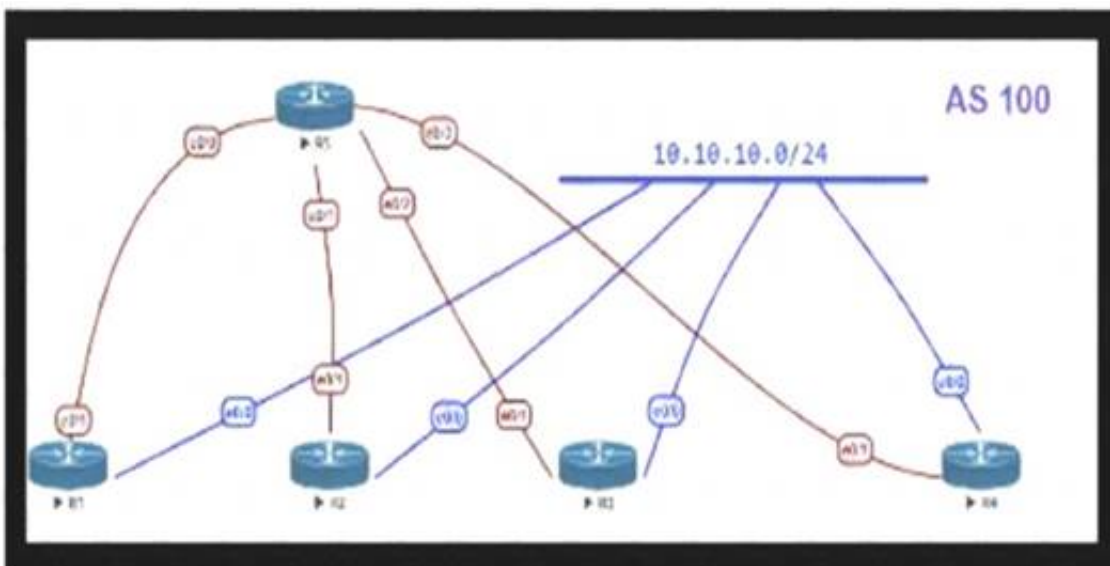
OSPF is running as the IGP to provide reachability to all AS100 networks R3 and R4 are the current ABRs at the boundary of OSPF Area0 and Area1 Now BGP must be deployed within AS 100 because it will be receiving Internet routes from its eBGP peers (the service provider) connected to R1 and R2 What is an optimal solution for this deployment to configure BGP relationships and redistribute BGP learned routes into OSPF?

A. R5 should be configured as a route reflector for R1, R2, R3 and R4. BGP routes must be redistributed at R1 and R2 into OSPF.
B. Configuration should be set up with R1 and R2, and R3 in one sub AS, with and R4 in another, and redistribution at R1 and R2.
C. A full mesh should be deployed between all the routers with mutual redistribution to take place at R1 and R2.
D. R1, R2, R3 and R4 must be set up with a neighbor relationship with R5 only must not be a route reflector.

Answer: C

NEW QUESTION 257
Company XYZ runs OSPF in their network. A design engineer decides to implement hot-potato routing architecture. How can this implementation be achieved?

A. Enable iBGP and apply prepend to ensure all prefixes will have the same length of the AS path attribute value.
B. Redistribute the external prefixes onto OSPF and ensure the total metric calculation includes only the ext value and the value is the same in all ASBRs.
C. Enable OSPF load-balancing over unequal cost path.
D. Redistribute the external prefixes onto OSPF and ensure that the total metric calculation includes external internal values.

Answer: D

NEW QUESTION 260
Which feature must be part of the network design to wait a predetermined amount of time before notifying the routing protocol of a change in the path in the network?

A. Transmit delay
B. Throttle timer
C. SPF hold time
D. Interface dampening

Answer: B

NEW QUESTION 262
How must the queue sizes be designed to ensure that an application functions correctly?

A. Each individual device queuing delay in the chain must be less than or equal to the application required delay.
B. The queuing delay on every device in the chain must be exactly the same to the application required delay.
C. The default queue sizes are good for any deployment as it compensates the serialization delay.
D. The sum of the queuing delay of all devices plus serialization delay in the chain must be less than or equal to the application required delay.

Answer: D

NEW QUESTION 267
Company XYZ is running OSPF in their network. They have merged with another company that is running EIGRP as the routing protocol. Company XYZ now needs the two domains to talk to each other with redundancy, while maintaining a loop free environment. The solution must scale when new networks are added into the network in the near future. Which technology can be used to meet these requirements?

A. multipoint route-redistribution with route filtering using ACLs
B. DUMP multipoint route-redistribution with route filtering using route tags
C. DUMPS single point route-redistribution with route filtering using route tags
D. DUMPS single point route-redistribution with route filtering using ACLs

Answer: B

NEW QUESTION 272
The Company XYZ network requires OSPF dead neighbor detection in a subsecond manner However the company network does not support BFD Which other feature can be used to fulfill the design requirement?

A. STP
B. fast hello
C. LFA
D. DPD

Answer: B

NEW QUESTION 274
How can EIGRP topologies be designed to converge as fast as possible in the event of a point-to-point link failure?

A. Limit the query domain by use of distribute lists.
B. Build neighbor adjacencies in a triangulated fashion.
C. Build neighbor adjacencies in squared fashion.
D. Limit the query domain by use of summarization.
E. Limit the query domain by use of default routes.

Answer: D

NEW QUESTION 275
Company XYZ is migrating their existing network to IPv6 and they must plan for Layer 2 and Layer 3 devices Some of the access layer switches do not support IPv6, however, core and distribution switches fully support unicast and multicast routing. The company wants to minimize cost of the migration. Which migration strategy should be used in the design?

A. The access layer switches must support IGMP snooping at a minimu
B. Any switches that do not support IGM snooping must be replaced.
C. Upgrade the nonsupporting switches Otherwise, it will cause an issue with the migration.
D. Layer 2 switches will not affect the implementation of IPv6. They can be included in the design in their current state.
E. The access layer switches must support DHCPv6. Any switches that do not support DHCPv6 must be replaced.

Answer: C

NEW QUESTION 280
Company XYZ has 30 sites running a legacy private WAN architecture that connects to the Internet via multiple high- speed connections The company is now redesigning their network and must comply with these design requirements :

> Use a private WAN strategy that allows the sites to connect to each other directly and caters for future expansion.

> Use the Internet as the underlay for the private WAN.

> Securely transfer the corporate data over the private WAN.

Which two technologies should be Incorporated into the design of this network? (Choose two.)

A. S-VTI
B. IPsec
C. DMVPN
D. GET VPN
E. PPTP

Answer: BC

NEW QUESTION 285
Which network management framework can be used to develop a network architecture that contains business requirements analysis, gap analysis, and network diagrams as artifacts to be used for design and implementation later?

A. TOG
B. ITIL
C. FCAPS
D. Cobit

Answer: A

NEW QUESTION 287
Drag and drop the optical technology design characteristics on the left to the correct optical technologies on the right. Not all options are used

A. Mastered
B. Not Mastered

Answer: A

Explanation:
1 - target 4
2 - target 5
3 - target 1
4 - target 6
5 - target 2
6 - target 3

NEW QUESTION 288
......