300-320

Number: 300-320
Passing Score: 800
Time Limit: 120 min
File Version: 1.0

Cisco 300-320

Designing Cisco Network Service Architectures

A

QUESTION 1
Which route summarization most efficiently reduces perceived network complexity that is composed of subnetworks ranging from 172.16.20.0/24 to 172.16.36.0/24?

A. 172.16.8.0/21
B. 172.16.8.0/19
C. 172.16.20.0/20
D. 172.16.0.0/18
E. 172.16.20.0/19

Correct Answer: D
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 2
What is the recommended subnet between two sites that have a point-to-point connection to conserve IP addresses?

A. 255.255.255.0
B. 255.255.252.0
C. 255.255.255.252
D. 255.255.255.240

Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 3
In which OSI layer does IS-IS operate?

A. Layer 1
B. Layer 2
C. Layer 3

D. Layer 4

Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 4
Which algorithm does IS-IS use to determine the shortest path through a network?

A. Bellman-Ford routing algorithm
B. Johnson'salgorithm
C. Dijkstra's algorithm
D. Floyd-Warshall algorithm

Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 5
Which unique EIGRP feature allows for faster Layer 3 convergence?

A. fast EIGRP timers
B. feasible successors
C. hybrid routing protocol
D. Cisco proprietary protocol

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 6
EIGRP uses which algorithm to build a routing table?

A. Dijkstra's algorithm
B. Floyd-Warshall algorithm
C. Diffusing Update Algorithm
D. Johnson's algorithm

Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 7
What is the maximum number of routers that each OSPF area (including the backbone) should contain?

A. 30
B. 10
C. 50
D. 100

Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 8
What is the maximum number of neighbors that a router should have in an OSPF area?

A. 5
B. 30
C. 60
D. 99

Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 9
Refer to the exhibit.

```
R1(config)# router ospf 2

    R1(config)# network 10.10.10.0 0.0.0.255 area 1

    R1(config)# network 20.20.20.0 0.0.0.255 area 2

    R1(config)# router-id 15.15.15.15

    R2(config)# router ospf 10

    R2(config)# network 10.10.10.0 0.0.0.255 area 1

    R2(config)# network 20.20.20.0 0.0.0.255 area 2

    R2(config)# router-id 16.16.16.16
```

Based on the configuration, why are routers R1 and R2 not exchanging OSPF routes?

A. The OSPF process numbers are different.
B. There is no backbone area configured.
C. The router IDs are different.
D. OSPF is not enabled on the interfaces.

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 10
An engineer notices that many BGP peers utilize the same configuration parameters. What can the engineer configure to simplify BGP neighbor statements and generate more efficient BGP peer updates?

A. peer groups
B. policy templates
C. session templates
D. peer address families

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 11
What is the correct state between two BGP peers that are neighbors?

A. active
B. operational
C. established
D. up

Correct Answer: C
Section: (none)
Explanation
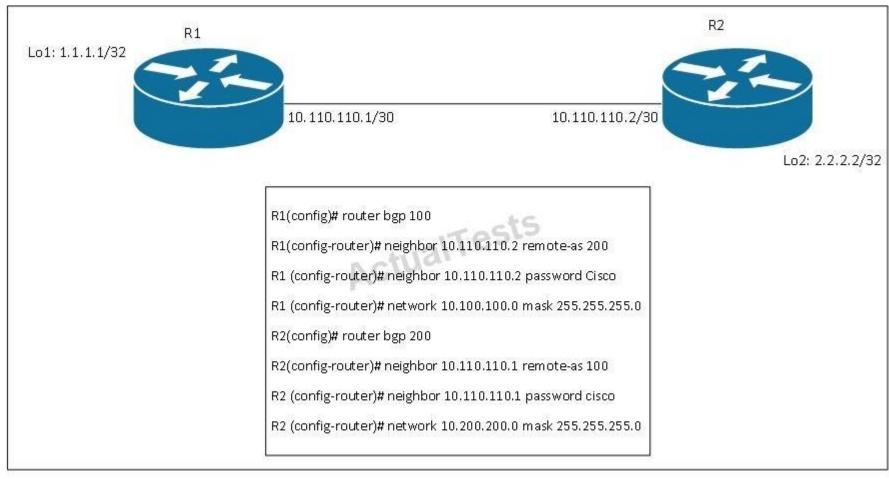
Explanation/Reference:
Explanation:

QUESTION 12
Refer to the exhibit. A network engineer manually reconfigures the BGP configuration on newly upgraded router R1. However, the BGP neighbor relationship does not come up with the directly connected neighbor router. What is causing the failure of the BGP neighbor relationship between routers R1 and R2?

R1

Lo1: 1.1.1.1/32

10.110.110.1/30

R2

10.110.110.2/30

Lo2: 2.2.2.2/32

R1(config)# router bgp 100

R1(config-router)# neighbor 10.110.110.2 remote-as 200

R1 (config-router)# neighbor 10.110.110.2 password Cisco

R1 (config-router)# network 10.100.100.0 mask 255.255.255.0

R2(config)# router bgp 200

R2(config-router)# neighbor 10.110.110.1 remote-as 100

R2 (config-router)# neighbor 10.110.110.1 password cisco

R2 (config-router)# network 10.200.200.0 mask 255.255.255.0

A. An incorrect neighbor IP address for router R2 is configured on router R1.
B. An incorrect neighbor AS number is configured on router R1 for router R2.
C. The wrong BGP authentication password is configured on router R1.
D. Router R1 must configure the R2 loopback address as the neighbor IP address.

Correct Answer: C

Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 13
Which option is a primary requirement for the deployment of an IPv6-enabled network via the native method (dual-stack model) within the enterprise campus environment?

A. hardware-based switching support for IPv6 forwarding on all campus switches
B. restriction of IPv6-enabled devices to the core layer
C. manual implementation of tunneling between IPv6-incompatible devices in an IPv4-over-IPv6 tunnel
D. disabling of multicast in the distribution layer prior to implementation of IPv6

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 14
Which multicast address must be available for FHRP advertisements in a multivendor environment?

A. 224.0.0.9
B. 224.0.0.18
C. 224.0.0.102
D. 224.0.0.2

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 15
Which feature must be configured for the VRRP-enabled router to regain the master VRRP status upon recovery from a failure?

A. priority

B. authentication

C. pre-emption

D. Stateful Switchover

Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 16
Which protocol should be configured if a network administrator wants to configure multiple physical gateways to participate simultaneously in packet forwarding?

A. HSRP

B. VRRP

C. GLBP

D. VTP

Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 17
Which Nexus feature enables you to support server connectivity with one topology and address requirement for both high availability and high bandwidth?

A. vPC

B. vPC+

C. Stackwise

D. EvPC

Correct Answer: D
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 18
Which technology can block interfaces and provide a loop-free topology?

A. STP
B. VSS
C. VLAN
D. vPC

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 19
Which technology allows network managers to centrally manage the VLAN database?

A. VTP
B. VLAN
C. VSS
D. vPC

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 20
Which technology allows multiple instances of a routing table to coexist on the same router simultaneously?

A. VRF
B. Cisco virtual router
C. instanced virtual router
D. IS-IS

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 21
Which first-hop redundancy protocol that was designed by Cisco allows packet load sharing among groups of redundant routers?

A. GLBP
B. HSRP
C. VRRP
D. VSS

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 22
Which routing protocol provides the fastest convergence and greatest flexibility within a campus environment?

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

Correct Answer: D
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 23
A network engineer wants to connect two sites via a WAN technology and to securely pass multicast traffic over this WAN technology. Which WAN technology should be configured?

A. IPsec
B. GRE
C. pure MPLS
D. GRE over IPsec

Correct Answer: D
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 24
A network manager wants to securely connect a new remote site to the existing headquarters site using a VPN technology that meets security requirements. Which VPN technology should be used?

A. GRE
B. IPsec
C. remote-access VPN
D. L2TP VPN

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 25
Which VPN technology is tunnel-less?

A. GET VPN
B. DMVPN
C. MPLS
D. IPsec VPN

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 26
Which type of connectivity is required for VPLS?

A. full mesh
B. partial mesh
C. star
D. bus
E. ring

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 27
Which protocol should be run on the LAN side of two edge routers (that are terminating primary and backup WAN circuits) to provide quick failover in case of primary WAN circuit failure?

A. VTP
B. STP
C. VRRP
D. RIP

Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 28
Which Cisco feature can be run on a Cisco router that terminates a WAN connection, to gather and provide WAN circuit information that helps switchover to dynamically back up the WAN circuit?

A. Cisco Express Forwarding

B. IP SLA
C. passive interface
D. traffic shaping

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 29
Which protocol is best when there are circuit connections with two different ISPs in a multihoming scenario?

A. VRRP
B. BGP
C. IPsec
D. SSL

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 30
Private lines make use of which connection type based on cell switching?

A. ATM
B. ISP MPLS VPN
C. VTI
D. VPLS
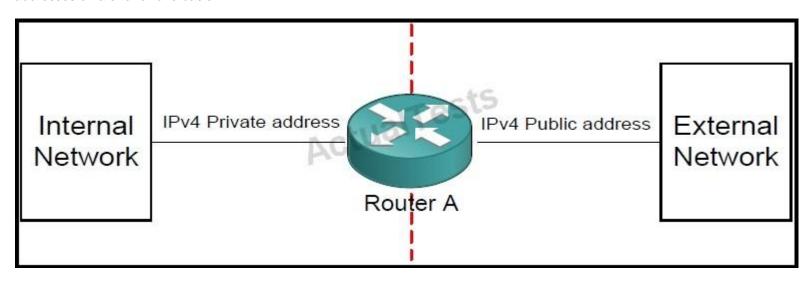
Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 31
Refer to the exhibit. Which functionality must be enabled on router A to connect two networks for translating private addresses into "legal" public addresses on a one-for-one basis?

A. PAT
B. NAT
C. VLAN
D. GARP
E. PPP

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 32
Which technology fulfills these requirements?

· Utilize a connection that must support a range of traffic, voice, video, and data.

· This traffic must also support transmission via a fixed blank 53-byte cell.

A. PPP
B. Frame Relay
C. ATM
D. MPLS
E. x.25

Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 33
Which option is used as a top-of-rack device that is managed by its parent device, providing ease of management?

A. Cisco Nexus 2000
B. Cisco Nexus 5000
C. Cisco Nexus 7000
D. Cisco Nexus 9000

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 34
Which option provides software modularity in Cisco NX-OS software in the data center design?

A. The ip routing command enables all of the features in the Cisco NX-OS.
B. All of the features are enabled by default in the Cisco NX-OS.
C. Individual features must be manually enabled to start the process.
D. The Cisco NX-OS has a management VRF that is enabled by default.

Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 35
What is an advantage of using the vPC feature in a data center environment?

A. VSS is a requirement.
B. Multiple instances of control plane are formed.
C. The control plane and management plane remain separate.
D. Cisco FabricPath technology does not have to be configured.

Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 36
Which option is a benefit of the vPC+ feature?

A. Cisco FabricPath is not required in the network domain.
B. This feature provides fault domain separation.
C. Nonfabric devices, such as a server or a classic Ethernet switch, can be connected to two fabric switches that are configured with vPC.
D. The control plane and management plane are combined into one logical plane.

Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 37
A network administrator wants to provide high availability in a data center environment by making sure that there is no reconvergence of Layer 2 and Layer 3 protocols when there is a Layer 3 switch failure. Which Cisco Nexus feature fulfills this purpose?

A. ISSU
B. VSS

C. vPC

D. MEC

Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 38
Which virtualization technology allows for HSRP protocol to be used in the active/active configuration where both HSRP Layer 3 devices can forward network traffic?

A. OTV

B. VSS

C. vPC

D. VDC

Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 39
Which technology extends Layer 2 LANs over any network that supports IP?

A. OTV

B. VSS

C. vPC

D. VLAN

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 40
What is the purpose of an OTV edge device?

A. connect to other data centers
B. connect to the access layer
C. connect to the end users
D. connect to mobile devices

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 41
Which feature can be used in the Cisco Nexus 7000 to create a snapshot of the current configuration?

A. Cisco FabricPath
B. HSRP
C. Rollback
D. vPC

Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 42
A company has hired an entry-level network administrator for its new data center. The company CIO wants to give the administrator limited access on the newly configured Cisco Nexus 7000. Which feature should be used to allow limited access?

A. NAC
B. VDC
C. RBAC
D. vPC

Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 43
Which option prevents the dropping of asymmetrically routed packets in active/active failover paired firewalls?

A. Nothing can be done to prevent this from happening.
B. Configure different policies on both firewalls.
C. Assign similar interfaces on each firewall to the same asymmetric routing group.
D. Assign similar interfaces on each firewall to a different asymmetric routing group.
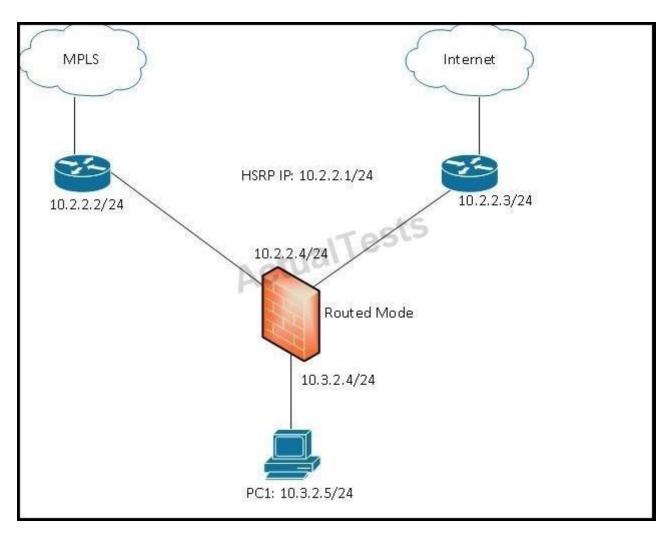
Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 44
"Pass Any Exam. Any Time." - www.actualtests.com 27 Cisco 300-320 Exam
Refer to the exhibit. Which option should be the default gateway for the PC1 that is shown?

A. 10.3.2.4
B. 10.2.2.2
C. 10.2.2.1
D. 10.2.2.3

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 45
The network engineering team is interested in deploying NAC within the enterprise network to enhance security. What deployment model should be used if the team requests that the NAC be logically inline with clients?

A. Layer 2 in-band
B. Layer 2 out-of-band
C. Layer 3 in-band
D. Layer 3 out-of-band

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 46
Which authentication framework is used in wireless networks and point-to-point connections?

A. EAP
B. L2TP
C. TKIP
D. PPP

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 47
What is one reason to implement Control Plane Policing?

A. allow OSPF routing protocol to advertise routes
B. protect the network device route processor from getting overloaded by rate limiting the incoming control plane packets

C. allow network devices to generate and receive packets

D. protect the data plane packets

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 48
Port security supports which type of port?

A. SPAN destination port

B. EtherChannel port-channel port

C. nonnegotiating trunk port

D. DTP-enabled trunk port

Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 49
Which protocol is required for end-to-end signaling in an IntServ QoS architecture?

A. RSVP

B. DSCP

C. ToS

D. LLQ

E. DiffServ

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 50
Which QoS architecture provides scalability of implementation?

A. IntServ
B. DiffServ
C. LLQ
D. RSVP

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 51
Which architecture provides a way to deliver end-to-end QoS as required by real-time voice and video business applications?

A. IntServ
B. DiffServ
C. LLQ
D. ToS
E. DSCP

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 52
CoS is applied for Layer 2 markings in an Ethernet environment. Which protocol must be configured on the Layer 2 switch port for CoS to work?

A. MPLS
B. IEEE 802.1W
C. IEEE 802.1Q
D. IEEE 802.1S

Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 53
Which protocol is used in an in-band network and why?

A. UDP, because it is connectionless
B. SSH, because the username and password are encrypted
C. Telnet, because the username and password are sent in clear
D. MSDP, because it uses TCP as its transport protocol

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 54
What is an advantage of having an out-of-band management?

A. It is less expensive to have an out-of-band management.
B. Network devices can still be managed, even in case of network outage.
C. There is no separation between the production network and the management network.
D. SSH protocol must be used to manage network devices.

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 55
The direction of the flow of multicast traffic is based on which protocol?

A. PIM

B. IGMP
C. underlying IGP
D. MSDP

Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 56
Which option can be implemented to manipulate the election of PIM DR to force multicast traffic to a certain path?

A. Assign a lower PIM DR priority to the PIM DR interface.
B. Assign a lower IP address to the PIM DR interface.
C. Assign a higher PIM DR priority to the PIM DR interface.
D. Increase the cost on the PIM DR interface.

Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 57
What network technology provides Layer 2 high availability between the access and distribution layers?

A. HSRP
B. MEC
C. EIGRP
D. GLBP

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 58
On which two types of links should routing protocol peerings be established according to best practice? (Choose two.)

A. distribution links
B. end user links
C. transit links
D. core links

Correct Answer: CD
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 59
A network engineer has implemented a looped triangle switch block design. What element must be included in the design?

A. FirstHop Redundancy Protocol
B. Layer 2 links between access switches
C. single uplinks between access and distribution switches
D. VLANs that span access switches
E. Layer 3 links between distribution switches
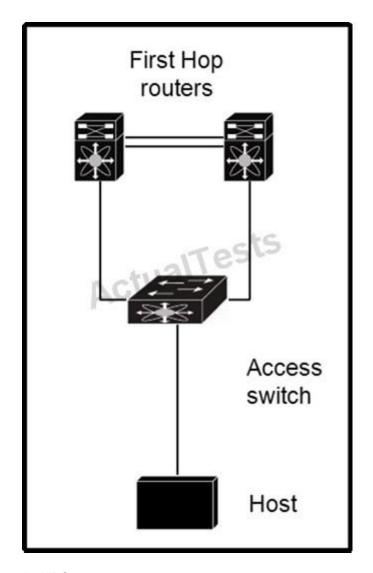
Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 60
Refer to the exhibit. Which two features can enable high availability for first-hop Layer 3 redundancy? (Choose two.)

First Hop
routers

Access
switch

Host

A. VPC
B. IGMP V2
C. VRRP
D. PIM
E. HSRP

Correct Answer: CE
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 61
To which network layer should Cisco Express Forwarding be tuned to support load balancing and to make more informed forwarding decisions?

A. Layer 1
B. Layer 2
C. Layer 3
D. Layer 4
E. Layer 5
F. Layer 6
G. Layer 7

Correct Answer: D
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 62
A Layer 2 switch in the network has recently started broadcasting traffic out of every port and is impacting network performance. The engineering department determines that a MAC overflow attack is the cause. Which two features can protect and mitigate the damage of the attacks? (Choose two.)

A. Storm Control
B. Port Security
C. SPAN
D. BPDU Filters
E. IP Source Guard
F. VACLs

Correct Answer: AB
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 63
An HSRP design requirement states that preemption must be enabled for the active switch, which is a Cisco 4507R. Assume a boot time of 300 seconds. Which setting of the preemption delay timer minimizes the loss of traffic?

A. 50 seconds
B. 100 seconds
C. 150 seconds
D. 200 seconds

Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 64
What is the next action taken by the Cisco NAC Appliance after it identifies a vulnerability on a client device?

A. denies the client network resource access
B. repairs the effected devices
C. generates a Syslog message
D. permits the client but limits to guest access
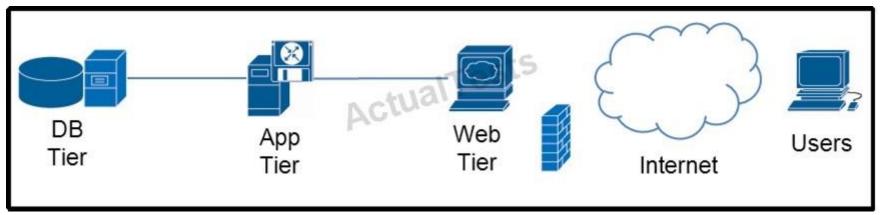
Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 65
Refer to the exhibit.

A customer requires a web application implementation, but the web server has communication only to the application server and users, and the database server has communication only to the application server. What firewall design is the best fit for this scenario?

A. transparent mode with the servers on the same subnet
B. routed mode with three security zones
C. transparent mode with three security zones
D. routed mode with two security zones

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 66
An organization is designing the IP allocation of a new site. It currently has 12 separate IP segments. Each segment must be /24, accommodate 25% of growth, and be easily summarized.

Which summarized IP block can be subnetted to meet these requirements?

A. /18
B. /19
C. /20
D. /21

Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 67
Summary address blocks can be used to support which network application?

A. QoS
B. IPsec tunneling
C. Cisco TrustSec
D. NAT
E. DiffServ

Correct Answer: D
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 68
A network design engineer has been asked to reduce the size of the SPT on an IS-IS broadcast network. Which option should the engineer recommend to accomplish this task?

A. Configure the links as point-to-multipoint.
B. Configure QoS in all links.
C. Configure a new NET address.
D. Configure the links as point-to-point.

Correct Answer: D
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 69
What are three primary components in IS-IS fast convergence? (Choose three.)

A. event propagation
B. LSP flooding
C. fast hellos
D. matching MTUs
E. updating RIB and FIB
F. SPF calculation

Correct Answer: AEF
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 70
A campus network utilizes EIGRP to connect to several remote branch offices.

Which configuration should be established on all branch routers to improve routing scalability and performance?

A. Configure authentication between the campus and branch offices.
B. Enable stub routing on all branch routers.
C. Adjust EIGRP k-values to utilize delay.
D. Utilize offset lists to direct traffic more efficiently.

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 71
Which two design principles should be followed to scale EIGRP properly? (Choose two.)

A. Ensure that the network design follows a structured hierarchical topology.
B. Utilize route summarization on edge devices.
C. Implement multiple autonomous systems, regardless of the size of the network.
D. Tune EIGRP delay metric on all core devices.

E. Configure offset lists on the network border.

Correct Answer: AB
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 72
Which action can be taken on a multiaccess segment with OSPF speakers to reduce the performance impact during widespread convergence events?

A. Separate the network into multiple areas for each new multiaccess segment.
B. Enable LSA throttling in the core to slow link state advertisement updates during times of network instability.
C. Ensure that the elected DR or BDR router can support high-volume convergence events.
D. Verify that fewer than 50 OSPF speakers are on the segment.

Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 73
An engineer is attempting to improve OSPF network performance and discovers that the entire SPT recomputes whenever a type 1 or type 2 LSA is received within an area.

Which action can optimize SPT operations?

A. Tune LSA throttling thresholds.
B. Enable incremental SPF.
C. Configure totally stubby areas throughout the domain.
D. Summarize networks on all ABRs.

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 74
Which option does best practice dictate for the maximum number of areas that an OSPF router should belong to for optimal performance?

A. 1
B. 2
C. 3
D. 4
E. 5

Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 75
A BGP network is having difficulty scaling with the full mesh peer requirement. What two iBGP alternates can scale BGP appropriately? (Choose two.)

A. communities
B. route reflectors
C. confederations
D. peer groups
E. peer templates

Correct Answer: BC
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 76
Which command can you enter to inject BGP routes into an IGP?

A. redistribute bgp
B. redistribute static
C. redistribute static subnet
D. default-information originate

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 77
In what situation must spanning-tree be implemented?

A. when first hop redundancy protocol exists with redundant Layer 2 links between distribution switches
B. when a VLAN spans access layer switches to support business applications
C. when trunks need to extend multiple VLANs across access switches
D. when it is necessary to speed up network convergence in case of link failure

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 78
Which feature supports multiple routing tables with overlapping networks on a single device?

A. VRF
B. Metro Ethernet
C. RSTP
D. VSS

Correct Answer: A
Section: (none)
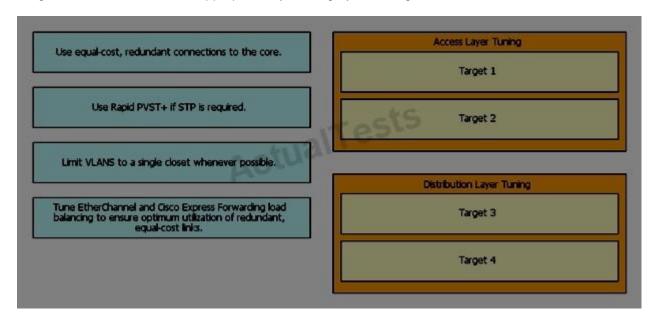**Explanation**

Explanation/Reference:
Explanation:

QUESTION 79
DRAG DROP

DRAG DROP

Drag the task on the left to the appropriate layer category on the right.

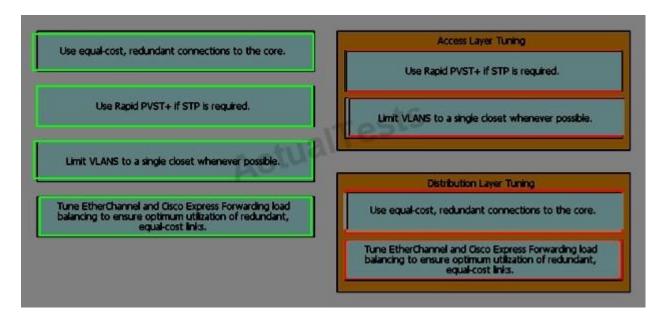A.

B.

C.

D.

Correct Answer:
Section: (none)
Explanation

Explanation/Reference:

Access Layer Tuning

Use Rapid PVST+ if STP is required.

Limit VLANS to a single closet whenever possible.

Distribution Layer Tuning

Use equal-cost, redundant connections to the core.

Tune EtherChannel and Cisco Express Forwarding load balancing to ensure optimum utilization of redundant, equal-cost links.

Use equal-cost, redundant connections to the core.

Use Rapid PVST+ if STP is required.

Limit VLANS to a single closet whenever possible.

Tune EtherChannel and Cisco Express Forwarding load balancing to ensure optimum utilization of redundant, equal-cost links.

Explanation:

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QUESTION 80
Which VPN technology supports dynamic creation of spoke-to-spoke VPN tunnels to provide a scalable design?

A. IPsec
B. GRE over IPsec
C. DMVPN
D. GRE

Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 81
A designer should have which three technologies in the network before configuring MPLS Layer 3 VPNs? (Choose three.)

A. MPLS
B. LDP
C. Cisco Express Forwarding
D. VSS
E. vPC
F. VRRP

Correct Answer: ABC
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 82
Which option is correct when using VSS to combine two physical switches into one logical switch?

A. Both data planes forward traffic simultaneously.
B. Only one data plane forwards traffic, while the other data plane is on standby.
C. Both control planes forward traffic simultaneously.
D. Control planes are combined into one virtual control plane.

Correct Answer: D
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 83
Which statement about vPC technology is true?

A. It allows a device to connect to two separate upstream devices as if they were a single device.
B. It provides the ability to pair two servers in the data center.
C. It promotes better STP designs in the switching infrastructure.
D. It supports IEEE 802.1Q only.

Correct Answer: A
Section: (none)

Explanation

Explanation/Reference:
Explanation:

QUESTION 84
Which statement best describes Cisco OTV internal interfaces?

A. They are Layer 2 interfaces that are configured as either access or trunk interfaces on the switch.
B. They are interfaces that perform Layer 3 forwarding with aggregation switches.
C. They are the interfaces that connect to the ISP.
D. They are tunnel interfaces that are configured with GRE encapsulation.

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 85
Which mechanism is enabled by default in the OTV technology to conserve bandwidth?

A. Automatic unicast flooding is suppressed over the OTV link.
B. BPDUs are allowed to traverse the OTV link.
C. Control plane traffic is prevented from traversing the OTV link.
D. Data plane traffic is prevented from traversing the OTV link.

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 86
Which two features provide resiliency in a data center? (Choose two.)

A. Cisco FabricPath
B. VTP

C. encryption
D. vPC
E. VRF

Correct Answer: AD
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 87
When a Cisco ASA adaptive security appliance is configured for active/standby failover, which MAC address is used for the active unit?

A. the MAC address of the primary unit
B. the MAC address of the secondary unit
C. the virtual MAC address
D. the standby MAC address

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 88
Which three authentication services are supported by Cisco NAC Appliance? (Choose three.)

A. RADIUS
B. LDAP
C. Kerberos
D. TACACS+
E. local
F. SNMP

Correct Answer: ABC
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 89
Which security feature can help prevent spoofed packets on the network?

A. uRPF
B. ACLs
C. DAI
D. DHCP spoofing

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 90
Which QoS mechanism uses RSVP?

A. IntServ
B. DiffServ
C. CoS
D. ToS

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 91
Which QoS mechanism uses PHBs?

A. DiffServ
B. IntServ
C. CoS
D. ToS

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 92
Voice and video-conferencing applications that support multistreaming use which protocol?

A. TCP
B. RTP
C. Multipath TCP
D. SCTP

Correct Answer: D
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 93
What are the three configuration requirements for implementing Modular QoS on a router? (Choose three.)

A. CoS
B. class map
C. precedence
D. service policy
E. priority
F. policy map

Correct Answer: BDF
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 94
Why is QoS important for in-band management?

A. It supports remote management when traffic volume is high.
B. It supports proper routing.
C. It supports network security against DoS attacks and worm outbreaks.
D. It supports network redundancy.

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 95
Which option is an advantage of using PIM sparse mode instead of PIM dense mode?

A. No RP is required.
B. There is reduced congestion in the network.
C. IGMP is not required.
D. It floods all multicast traffic throughout the network.

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 96
What are the two methods of ensuring that the RPF check passes? (Choose two.)

A. implementing static mroutes
B. implementing OSPF routing protocol
C. implementing MBGP
D. disabling the interface of the router back to the multicast source
E. disabling BGP routing protocol

Correct Answer: AC

Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 97
In which multicast configuration is MSDP most useful?

A. interdomain
B. intradomain
C. data center
D. campus

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 98
A network design team is experiencing sustained congestion on access and distribution uplinks. QoS has already been implemented and optimized, and it is no longer effective in ensuring optimal network performance.

Which two actions can improve network performance? (Choose two.)

A. Reconfigure QoS based on the IntServ model.
B. Configure selective packet discard to drop noncritical network traffic.
C. Implement higher-speed uplink interfaces.
D. Bundle additional uplinks into logical EtherChannels.
E. Utilize random early detection to manage queues.

Correct Answer: CD
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 99

What two features are inherent advantages of MPLS VPN services? (Choose two.)

A. service providers can provide additional services
B. virtual private networks segment traffic and ensure privacy
C. easier to troubleshoot than Layer 2 WAN technologies
D. faster data transfer speeds at lower costs
E. functions without Cisco Express Forwarding

Correct Answer: AB
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 100
A VPN solution requires bulk traffic encryption, low OpEx to add new sites, and the ability to accommodate dynamic tunnels between branch locations. What VPN solution can fulfill these requirements?

A. GETVPN
B. SSL VPN
C. Easy VPN
D. DMVPN

Correct Answer: D
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 101
A company requires redundancy for its multihomed BGP external connections. What two features can be configured on the WAN routers to automate failover for both outbound and inbound traffic? (Choose two.)

A. AS path prepending
B. local preference
C. floating static route
D. HSRP
E. MED

F. weight

Correct Answer: AD
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 102
Which two physical components can enable high availability on a Cisco 6500 device? (Choose two.)

A. dual supervisor modules
B. bundled Ethernet Interconnects
C. line modules with DFCs
D. redundant power supplies
E. VSS interlink cables

Correct Answer: AD
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 103
Recently, the WAN links between the headquarters and branch offices have been slow under peak congestion, yet multiple alternate WAN paths exist that are not always congested. What technology can allow traffic to be routed in a more informed manner to utilize transport characteristics such as delay, loss, or link load?

A. performance routing
B. static routing
C. on demand routing
D. policy based routing

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:

Explanation:

QUESTION 104
A network engineer is building a LAN design that includes Cisco NAC. What two characteristics of an out-of-band NAC deployment are important to consider when evaluating it for the design? (Choose two.)

A. supported by a limited number of switch models
B. never in-line with user traffic
C. aggregate client traffic is constrained to NAC server port speed
D. recommended if sharing ports between IP phones and PCs
E. supports real IP gateway (routed mode)

Correct Answer: AD
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 105
Which option is a method of restricting access for users based on user roles and locales?

A. RBAC
B. ACE
C. LDAP
D. RADIUS

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 106
Which technology provides a layer 2 loop free and does not contain a port state named "Blocking"?

A. VSS

Correct Answer: A

Section: (none)
Explanation

Explanation/Reference:

QUESTION 107
Drag the IS-IS convergence components to the order they occur.

Select and Place:

Correct Answer:

Section: (none)
Explanation

Explanation/Reference:
First   - Failure detection time
Second   - Event propagation time
Third   - SFP run time
Fourth   - RIB FIB update time

QUESTION 108
Which L2 messaging protocol maintains VLAN configuration consistency?

A. VTP

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:

QUESTION 109
OTV relies on which underlying protocol?

A. IS-IS

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:

QUESTION 110
Which two methods are available to connect a Cisco IOS device to an active directory domain for authentication

A. LDAP (Lighweight Directory Access Protocol)
B. RADIUS

Correct Answer: AB
Section: (none)
Explanation

Explanation/Reference:

QUESTION 111
Which STP feature can prevent other switches on the network from becoming the root switch, but still allow that interface to particiate in STP otherwise?

A. BPDU Guard

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:

QUESTION 112
What are two point-to-multipoint overlay tunneling strategies that are used in transitioning to IPv6 ? (choose two)

A. ISATAP
B. 6to4

Correct Answer: AB
Section: (none)
Explanation

Explanation/Reference:

QUESTION 113
Which two BGP attributes can be set with outbound policy to manipulate inbound traffic, if honored by the remote autonomous system? (choose two)

A. Multi-exit discriminator
B. AS path

Correct Answer: AB
Section: (none)
Explanation

Explanation/Reference:

QUESTION 114
A network engineer designing an access layer that requires all uplinks to be active,Furthermore, VLANs must span accross the entire switch block.Which two design fulfill this requirement?

A. Layer 2 FlexLinks
B. Layer 2 loop-free inverted U

Correct Answer: AB
Section: (none)
Explanation

Explanation/Reference:

QUESTION 115
Port Security supports which type of port

A. IEEE 802.1Q tunnel port

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:

QUESTION 116
In which multicast configuration is MSDP most useful?

A. interdomain IPv4 PIM sparse-Mode

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:

QUESTION 117
 Which protocol should be configure if a network administrator has the following requirement

A. GLBP

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:

QUESTION 118
In what situation must spanning-tree be implemented?

A. When redundant Layer 2 links, that are not part of a single EhterChannel or bundle, exist between distribution switches

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:

QUESTION 119
WHich option is correct when using Virtual Switching System

A. Both control planes forward traffic simultaneously

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:

QUESTION 120
Which three statements about 802.1X are true

A. it is IEEE standard
B. It works only with wired devices
C. It can allow and deny port access based on device identity

Correct Answer: ABC
Section: (none)
Explanation

Explanation/Reference:

QUESTION 121
Which security Mechanism can you implement to protect the OSPF?

A. Cryptographic authentication

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:

QUESTION 122
Which virtulization technology uses Layer 3 BFD to detect network failure between entwork devices?

A. Cisco Fabricpath

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:

QUESTION 123
Which interface characteristic is used to calculate cost of an interface in OSPF

A. bandwidth

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:

QUESTION 124
Which STP feature allows an access port to bypass the learning and listening?

A. PortFast

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:

QUESTION 125
Which protocol does vpls use to tunnel layer 2 ethernet frames?

A. L2TP
B. MPLS

Correct Answer: AB
Section: (none)
Explanation

Explanation/Reference:

QUESTION 126
Which OSPF concept is used to relate areas to the backbone area through another area?

A. Virtual Links

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:

QUESTION 127
You are given the 192.168.2.0/24 network and you should divide it in 4 subnets. Which statements are true regarding the first subnet?

A. 62 hosts in subnet
B. 255.255.255.192 mask
C. 192.168.2.62 last host

Correct Answer: ABC
Section: (none)
Explanation

Explanation/Reference:

QUESTION 128
With which technology can VSS be combined to achieve better performance?

A. MEC (Multichassis Etherchannel)

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:

QUESTION 129
Explain to a customer 2 advantages of the routing summarization.

A. small routing table
B. small upstream impact of a flapping interface

Correct Answer: AB
Section: (none)

Explanation

Explanation/Reference:

QUESTION 130
Which technology guarantees loop free network and does not contain the state "listening"?

A. RPVST+
B. STP
C. VSS

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:

QUESTION 131
You need to design a network with a summary segment that supports up to 15 IP segments and all segments must be /24:

A. /20
B. /21
C. /18
D. /19

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:

QUESTION 132
VSS recommendations

A. Do not configure switch preemption

Correct Answer: A
Section: (none)

Explanation

Explanation/Reference: