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The Power of Knowing



Exam : 642-054

Title : Routing and Switching Solutions for
Systems Engineers

Ver : 10-24-07

QUESTION 1:

Refer to the exhibit. The network is running the EIGRP routing protocol. Distribution router 1 loses the link to the corporate network. How should the remote spoke router be configured to prevent it from being the next-lowest-cost path to network 10.3.1.0?

Exhibit: *** MISSING ***

- A. Configure a floating static route to network 10.3.1.0.
- B. Configure it as an EIGRP stub router.
- C. Disable split horizon.
- D. Enable route filtering.

Answer: B

QUESTION 2:

What queue-scheduling algorithm does the Optical Services Module PXF use to provide QoS features?

- A. Weighted Round Robin
- B. Versatile Traffic Management Services
- C. FIFO
- D. Modified Deficit

Answer: B

QUESTION 3:

Which of these is a deployment focus of the Cisco Catalyst 4900 Series Switches?

- A. limited-space server rack
- B. network core
- C. medium to large branch offices
- D. high-density wiring closet

Answer: A

QUESTION 4:

Which Cisco 7600 module allows the router to be used as an aggregator for high-speed remote WAN links and transparent LAN services?

- A. Enhanced FlexWAN
- B. CIP services
- C. transport services

- D. multiflex trunking
- E. optical services
- F. link aggregator

Answer: A

QUESTION 5:

You are working with Certkiller .com who is planning to move a critical business application to a remote data center. What are two networking considerations that must be made to ensure successful implementation? (Choose two.)

- A. routing protocol that will be used at the remote data center
- B. bandwidth to the remote data center
- C. physical characteristics of servers required to host the remote business application
- D. number of concurrent users accessing the remote application
- E. circuit type that will be used to connect to the remote data center

Answer: B,C,D

QUESTION 6:

Which of these is a deployment focus of the Cisco Catalyst 4500 Series Switches?

- A. high-density wiring closet
- B. limited-space server rack
- C. medium to large branch offices
- D. network core

Answer: C

QUESTION 7:

A client organization is investigating deploying IP communications. It has a traditional hub-and-spoke Frame Relay WAN. It has five remote sites, and the WAN link speed for each location is 512 kbps. The WAN supports typical IP-based applications, but the client will also be rolling out a new ERP application that will be considered mission critical. Which three QoS mechanisms will be useful in redesigning the WAN to support the mission-critical application and IP communications? (Choose three.)

- A. WFQ
- B. LFI
- C. cRTP
- D. LLQ
- E. CBWFQ
- F. 5 to 11 class model

Answer: B,C,D

QUESTION 8:

Which capability of EIGRP allows a failing router to retain the routing information of an EIGRP peer until the failed router has returned to normal operating behavior?

- A. NSF awareness
- B. feasible successor
- C. DUAL
- D. AD

Answer: A

QUESTION 9:

What are three important characteristics of the Cisco Catalyst C3560G-48PS switch? (Choose three.)

- A. contains 48 Ethernet 10/100/1000 ports and 2 dual-purpose slots
- B. supports class 2, 802.3af PoE up to a maximum of 24 ports
- C. uses the GBIC/SFP form factor for dual-purpose ports
- D. supports Layer 3 IP routing services
- E. provides a maximum forwarding bandwidth of 32 Gbps

Answer: C,D,E

QUESTION 10:

The Cisco 3200 Series Mobile Access Routers include a ruggedized enclosure and a MARC. Which three components may be added to the MARC? (Choose three.)

- A. FESMICs
- B. GESMICs
- C. LAMICs
- D. VMICs
- E. WMICs
- F. SMICs

Answer: A,E,F

QUESTION 11:

Which three are correct when applying Cisco IOS QoS features at the branch office? (Choose three.)

- A. On slow WAN links, TCP header compression should always be implemented for the voice traffic class.
- B. Classification and marking will need to be performed on the branch router's LAN edge in the ingress direction.
- C. Branch routers are a strategic place to deploy NBAR policies for worm identification and policing.
- D. AutoQoS VoIP can automatically classify voice bearer and control traffic as well as video traffic.
- E. Unidirectional applications may require bandwidth allocation in only one direction.

Answer: B,C,E

QUESTION 12:

Certkiller Jet Sleds wants to enable a percentage of its workforce, about 500 people, to work from home. It wants employees to have the same access from home as they do on the corporate network, including the ability to have their Cisco 7960 IP Phones and to participate in videoconferences in their home offices. Which two of these products should be deployed to enable this solution? (Choose two.)

- A. Cisco 830 Series routers
- B. Cisco 3000 Series concentrators
- C. Catalyst 500 switches
- D. Cisco uBR7100 Series broadband routers
- E. Cisco VPN client

Answer: A,B

QUESTION 13:

Refer to the exhibit. Which type of traffic must be sensitive to the parameters shown?
Exhibit: *** MISSING ***

- A. interactive video
- B. streaming video
- C. voice-enabled data
- D. voice

Answer: A

QUESTION 14:

When issuing the Cisco IOS command show power in the Cisco Catalyst 6509 Switch, which four types of information can be gathered? (Choose four.)

- A. line card administrative state and slot location
- B. IOS revision level
- C. power capacity in watts and amperage by chassis and line card
- D. power supply fan status
- E. line card revision
- F. operational state

Answer: A,C,D,F

QUESTION 15:

Certkiller .com wishes to deploy Cisco IP Phones in its office. Each desk will have a Cisco 7960 IP Phone with a workstation connected through it; there is also a Catalyst 3550 Series Switch in the wiring closet. Which is an important consideration when designing the Voice over IP solution?

- A. using static secure MAC addresses on voice VLANs
- B. verifying that the incoming data traffic has legitimate ToS values
- C. manually configuring the PortFast on voice VLANs
- D. configuring port security on a per-VLAN basis

Answer: B

QUESTION 16:

Which three statements are correct regarding SDMv2.0? (Choose three.)

- A. supports role-based access
- B. supports only HTTPS access, and not HTTP
- C. supports smart wizards with built-in intelligence about recommended Cisco IOS configurations for different use scenarios
- D. provides industry-leading security management tool available for all Cisco router and Catalyst switch platforms
- E. extends its scope to other functions besides security, such as QoS policy configuration

Answer: A,C,E

QUESTION 17:

Which approach implements the key advantage of route summarization in a gigabit network campus design?

- A. IP subnetting
- B. spanning tree domains
- C. policy domains
- D. virtual LANs

Answer: A

QUESTION 18:

The PVDM slots on the motherboard of the Cisco 2800 and 3800 ISR are used for what purpose?

- A. to support the high-performance AIM modules
- B. to support the EVM
- C. to support the integrated DSPs for voice termination, conferencing and transcoding
- D. to support built-in VPN acceleration providing high-performance Crypto offload
- E. to support the onboard TDM switch

Answer: C

QUESTION 19:

Refer to the exhibit. Given that the network is running OSPF routing protocol over the WAN, which type of OSPF routing is being used on the router labeled "Mollie"?

Exhibit: *** MISSING ***

- A. virtual link
- B. point to point
- C. route redistribution
- D. point to multipoint

Answer: D

QUESTION 20:

Refer to the exhibit. Interface serial 1 is a 128-kbps Frame Relay connection. What does the command frame-relay adaptive-shaping becn configure the router to do?

Exhibit: *** MISSING ***

- A. allows bursts to 128 kbps and sets the BECN bit when 80 kbps is exceeded
- B. sends a frame with the BECN bit set when the committed burst size is exceeded
- C. allows bursts to 128 kbps and throttles traffic down to the minCIR value when a frame is received with the BECN bit set
- D. allows bursts to 80 kbps and throttles traffic down to the minCIR value when a frame is received with the BECN bit set
- E. allows bursts to 80 kbps and sets the BECN bit when 72 kbps is exceeded

Answer: C

QUESTION 21:

What are three important characteristics of the Cisco Catalyst 2960G-24TC switch?
(Choose three.)

- A. Each Ethernet 10/100/1000 port supports up to six priority queues each with two drop thresholds.
- B. contains 24 Ethernet 10/100/1000 ports and 2 dual-purpose slot
- C. provides a maximum forwarding bandwidth of 32 Gbps
- D. does not support 802.3af PoE
- E. uses the GBIC/SFP form factor for dual-purpose ports

Answer: C,D,E

QUESTION 22:

Your retail customer has 330 branch locations that it wishes to connect via Frame Relay. At the headquarters location there will be two DS-3 Frame Relay circuits, each connected to an ISR 3845 router. Each branch location will have a fractional T1 with a 128-kbps CIR and a PVC mapped to each of the DS-3 circuits. Which two considerations must be addressed for this design? (Choose two.)

- A. Additional routers and circuits should be installed at headquarters so that no more than 200 branch locations are mapped to each ISR due to IDB limitations.
- B. The CIRs should be reduced so the DS-3 circuits are not oversubscribed.
- C. The MTU for the Frame Relay circuits should be set to 4470 to allow the LMI message to include all 330 DLCIs.
- D. Frame Relay traffic shaping should be implemented to prevent congestion in the Frame Relay switch.
- E. The customer should not run OSPF. Since all branches are connected to the same circuit at headquarters they must be in the same OSPF area, and the number of branches exceeds the design recommendations for routers in an OSPF area.

Answer: C,D

QUESTION 23:

What three network applications are enabled via Cisco NetFlow? (Choose three.)

- A. security analysis
- B. network modeling
- C. topology mapping
- D. quality of service
- E. application profiling
- F. user profiling

Answer: A,E,F

QUESTION 24:

Refer to the exhibit. Which type of campus network design would be concerned with these requirements?

Exhibit: *** MISSING ***

- A. server farm
- B. Layer 2 core
- C. enterprise campus
- D. Layer 3 backbone

Answer: C

QUESTION 25:

DRAG DROP

Your boss at Certkiller .com, Mrs. Certkiller, is curious about Cisco design. Match the definition with the appropriate design.

Designs, select from these

Modular design

Building design

Multilayer design

Collapsed backbone design

Definitions

Consists of a number of building blocks connected across a campus backbone, providing scalability and redundancy

Gigabit Ethernet trunks connect Layer 2 switches in each wiring closet to a redundant pair of Layer 3 switches in the distribution layer

Layer 3 switches form a collapsed building backbone. Layer 2 switches with a redundant gigabit uplinks to the backbone are placed in closets to service desktops.

Consists of two or more Layer 3 switches where the core and distribution layers coexists and lends itself well to the small-to medium-sized campus network

Designs, place here

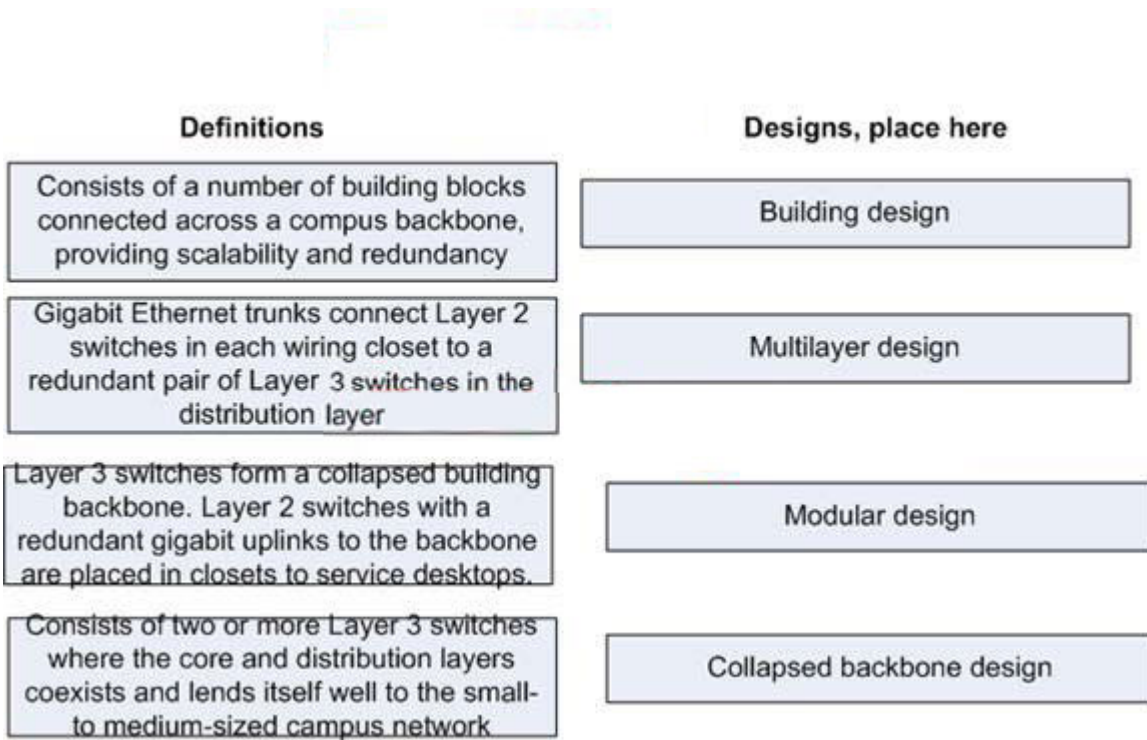
Place here

Place here

Place here

Place here

Answer:



Explanation:

Reference:

http://www.cisco.com/en/US/partner/netsol/ns340/ns394/ns74/ns149/networking_solutions_white_paper09186a00800a3e1

QUESTION 26:

In the Cisco Catalyst 6500-E Series chassis, what are three key chassis specifications? (Choose three.)

- A. six- and nine-slot chassis support only 6000-W power supplies
- B. supports all existing supervisors, line cards, switch fabrics, and software releases
- C. three-slot chassis supports CEF720 line cards
- D. requires Cisco IOS 12.2(1)SXD and beyond
- E. is backward-compatible with all existing software versions

Answer: B,C,E

QUESTION 27:

Which three of these are features of the Cisco Catalyst 4900 Series Switches? (Choose three.)

- A. stackable
- B. Layer 2 through Layer 7 switching capabilities
- C. redundant power supplies

- D. fixed configuration
- E. Power over Ethernet
- F. one RU

Answer: C,D,F

QUESTION 28:

What are three important characteristics of the Cisco Catalyst C3750G-48PS switch?
(Choose three.)

- A. provides GBIC support for a single 10 Gigabit Ethernet interface
- B. can group up to nine switches into a single stack using Cisco StackWise
- C. contains 48 Ethernet 10/100/1000 ports and 4 dual-purpose slots
- D. provides a maximum forwarding bandwidth of 32 Gbps
- E. supports class 2, 802.3af PoE up to a maximum of 24 ports

Answer: B,C,D

QUESTION 29:

A client wants to install a secured repeater access point to extend its network to an area that has no wired network access. After properly configuring the repeater access point for Cisco LEAP, what two configurations must the customer implement in order for the secured repeater access point to connect and send data? (Choose two.)

- A. Configure the username and password to be used by the repeater when authenticating to the root access point.
- B. Configure the repeater access point to transmit and receive on a nonoverlapping channel from the root access point.
- C. Configure the root access point as "bridge mode," so it transmits the dynamic key when a repeater access point requests it.
- D. Configure the repeater access point for Network EAP authentication.
- E. Configure the repeater access point as "bridge mode" so it requests the dynamic key from the root access point.

Answer: A,D

QUESTION 30:

Which two standards enable the PVDM module on the ISR to provide secure communications with IP Phones? (Choose two.)

- A. RSA signature
- B. AES encryption
- C. RUDP

- D. SRTP
- E. MD5 hash
- F. IPSec

Answer: B,D,E

QUESTION 31:

Certkiller .com wishes to eliminate the expense of distributing training videotapes to each location but is worried about bandwidth consumption affecting critical business applications. Which network module can be added to ISRs to allow the customer to distribute the videos over the WAN with minimal impact on bandwidth?

- A. NM-HDV
- B. NM-CE-BP-40G
- C. NM-16ESW-1GIG
- D. NM-CUE-EC

Answer: B

QUESTION 32:

Refer to the exhibit. To which type of network does this design principle most likely apply?

Exhibit:

"As web technologies and applications are deployed throughout enterprise networks, the application of Internet-class technology into intranets is necessary to scale campus networks to meet rising demands."

- A. small
- B. medium
- C. service provider
- D. large

Answer: D

QUESTION 33:

When determining Certkiller .com's current WAN properties and requirements, what are four primary types of information that are required to characterize the networked applications? (Choose four.)

- A. delay tolerance and loss characteristics
- B. number and location of users and servers
- C. age of the applications
- D. platforms that the applications run on

- E. overall bandwidth requirements
- F. types of applications that will be used

Answer: A,B,E,F

QUESTION 34:

Certkiller .com is deploying a server cluster using Cisco InfiniBand Server Switches. The customer wishes to connect the server cluster to its existing Ethernet campus. Which product should be used?

- A. SFS 3000
- B. SFS 7000
- C. Catalyst 6500
- D. ASA 5500

Answer: A

QUESTION 35:

Certkiller .com is adding a new R&D facility to its existing, three-building corporate campus. The new building will be four stories high and house from 150 to 400 employees. The client would like to deploy IP communications to this building and connect it to the existing campus TDM phone system. The new building will use collaborative workspaces for each team, and it will require that each team member have the flexibility to move among work areas yet remain connected to the network and receive phone calls. Which four technologies will be applicable here? (Choose four.)

- A. AONS
- B. security
- C. switching
- D. storage
- E. PoE
- F. wireless

Answer: B,C,E,F

QUESTION 36:

Certkiller .com needs to establish a connection from its Cisco router to a business partner's non-Cisco router. Due to the sensitive nature of its business, the client prefers a dedicated circuit. Which Layer 2 protocol should be run on this circuit?

- A. MPLS
- B. GRE
- C. HDLC

D. PPP

Answer: D

QUESTION 37:

Refer to the exhibit. Given the network topology, what function is OSPF Router E performing?

Exhibit: *** MISSING ***

- A. internal router
- B. area border router
- C. stub router
- D. autonomous system border router

Answer: D

QUESTION 38:

Certkiller .com has a pair of single-processor Cisco 7500 routers connecting its enterprise to an ISP. It has deployed HSRP between these routers, but it also needs to provide high availability on each router to support its internal and external customers. What would you recommend to Certkiller .com to resolve this issue?

- A. Install redundant route processors in each router and deploy RPR+.
- B. Configure a virtual third router as a redundant fallback for operation with NSF/SSO.
- C. Deploy SSO on the current routers.
- D. Install redundant route processors in each of the routers and deploy NSF/SSO.

Answer: D

QUESTION 39:

Certkiller .com is relocating its data center to a new building. The new data center is two miles from the existing data center. The customer's scheduled maintenance window is too short to accommodate a flash cut, so it plans on relocating 25 percent of the servers on separate weekends. The customer does not wish to change the IP addresses of the servers and is trying to find a way to bridge its subnets between the two data centers during the migration period. Which Cisco product may be able to accomplish this?

- A. SFS 3000
- B. Aironet 1400
- C. Aironet 1120
- D. Cisco IP Transfer Point

Answer: B

QUESTION 40:

Certkiller .com is planning to implement an MPLS VPN network. This customer will have two connections to its Service Provider. The PE - CE routing protocol is BGP. They also will be enabling the bgp multipath load sharing feature? Which two of the following is correct regarding the bgp multipath feature? (Choose two).

- A. Multiple paths to the same destination will be entered into the routing information base.
- B. To enable this feature, the command bgp multipath "max paths" command is used.
- C. As a result of enabling this feature, BGP will not select a best path for this entry.
- D. This feature will only work on EBGP paths and not on IBGP paths.
- E. It must be configured under the VPN VRF address family.
- F. To perform load balancing over these multiple paths CEF load balancing must be configured on either per-packet round robin or on a per-session basis.

Answer: A,F

QUESTION 41:

What are three sources of information used to characterize an existing customer network? (Choose three.)

- A. data sheets
- B. network audit
- C. server requirements document
- D. traffic analysis
- E. organization input

Answer: B,D,E

QUESTION 42:

Certkiller .com needs to manage branch router configurations using local staff but is concerned that the Cisco CLI is too complicated. What should you recommend to mitigate this concern?

- A. The Cisco IOS SDM simplifies configuration tasks.
- B. Cisco Device Manager (CDM) has easy-to-use GUI wizards for most router configuration tasks.
- C. Cisco's website has configuration documentation available for all currently supported releases.
- D. The Cisco IOS CLI Setup command provides guided steps for most configuration tasks.
- E. The Cisco IOS CLI has context-sensitive help to ease the CLI configuration task.

Answer: A

QUESTION 43:

You have a client that currently has a single connection to an ISP. Certkiller .com is growing rapidly and would like to provide more capacity to the Internet without losing the ability to support high availability. Which methodology will support dual-homed connections to the same ISP and also support high availability?

- A. GLBP
- B. RPR+
- C. VRRP
- D. HSRP

Answer: A

QUESTION 44:

Refer to the exhibit. Certkiller .com has the network shown and is seeing greater demand for videoconferencing. You recommend an IP multicast solution. What are two benefits of the customer implementing IP multicasting? (Choose two.)

Exhibit: *** MISSING ***

- A. guarantees delivery of all packets because it uses TCP/IP
- B. eliminates traffic redundancy
- C. reduces network routing updates because it is concerned about the packet destination
- D. enables multipoint applications
- E. eliminates the need for QoS and reduces network utilization

Answer: B,D

QUESTION 45:

DRAG DROP

Your boss at Certkiller .com, Mrs. Certkiller, is curious about domains. Match the definition with the appropriate domain.

Domains, select from these

Failure domain

Broadcast domain

Policy domain

Spanning tree domain

Definitions

MAC layer in which layer two frames flood the whole Layer 2 switched domain

Place here

A group of connected Layer 2 switches

Place here

Layer 2 switches that break loops in the layer topology by putting redundant links in blocking mode that do not forward traffic

Place here

A group of servers, with similar access guidelines, that are conveniently grouped together in the same IP subnet and the same VLAN

Place here

Answer:

Definitions

MAC layer in which layer two frames flood the whole Layer 2 switched domain

Domains, place here

Broadcast domain

A group of connected Layer 2 switches

Failure domain

Layer 2 switches that break loops in the layer topology by putting redundant links in blocking mode that do not forward traffic

Spanning tree domain

A group of servers, with similar access guidelines, that are conveniently grouped together in the same IP subnet and the same VLAN

Policy domain

QUESTION 46:

Refer to the exhibit. Certkiller .com believes that it has been experiencing denial of service attacks. Which two entries from the NetFlow display would be helpful in confirming this assumption? (Choose two.)

Exhibit: *** MISSING ***

- A. All flows have the same source autonomous system.
- B. All flows have the same destination autonomous system.
- C. All flows use the same protocol.
- D. All flows are the same size.
- E. There is only one packet per flow.

Answer: D,E

QUESTION 47:

Refer to the exhibit. Which type of campus network is represented?

Exhibit: *** MISSING ***

- A. medium
- B. large
- C. small
- D. server farm

Answer: C

QUESTION 48:

In a Cisco Catalyst 6509 Switch, in which slots can the Sup2 card be installed?

- A. slots 1 and 2
- B. any slot
- C. slots 1 through 9
- D. slots 3 and 4
- E. slots 5 and 6

Answer: E

Explanation:

Sup2 can only be installed in slot 1 and 2.

QUESTION 49:

Refer to the exhibit. You are required to upgrade the network of a two-story branch office building to support wireless LAN access throughout the building. What three configuration tasks should be completed on the building switches to maximize the efficiency of the wireless design? (Choose three.)

Exhibit: *** MISSING ***

- A. limit broadcast traffic to the access point by enabling VLAN filtering
- B. limit the number of VLANs connecting to any access point to a maximum of 16
- C. enable VTP on the access point to allow VLAN support over the wireless network
- D. limit multicast traffic to the access point by enabling IGMP snooping
- E. extend ISL VLAN trunks to the access points for VLAN transport

Answer: A,B,D

QUESTION 50:

Which three are benefits of using the Cisco Cluster Management Suite Software to manage multiple switches? (Choose three.)

- A. provides Web-based interface for configuring and managing Catalyst OS functions
- B. provides Web-based interface for configuring and managing Cisco IOS functions
- C. manages up to 16 geographically dispersed switches simultaneously
- D. manages up to 24 geographically dispersed switches simultaneously
- E. can be accessed through any standard Web browser

Answer: B,C,E

QUESTION 51:

In a Cisco Catalyst 6500-E Series chassis, why is a special type of fan used?

- A. A larger fan is required to provide increased airflow because the Catalyst 6500-E Series has a smaller form factor; there isn't more heat, there is less room.
- B. It provides additional cooling, which is required by new line cards that generate more heat due to increased power consumption.
- C. A dual-speed fan is required to support the redundant and nonredundant power-mode features of the Catalyst 6500-E Series.
- D. Nonredundant power mode generates less heat, and consequently a slower fan speed can be used.

Answer: B

QUESTION 52:

Given a Cisco Catalyst 4500 Series Switch with redundant supervisors, what feature allows phone calls to remain up in the event of a supervisor failure?

- A. CEF
- B. NSF
- C. NetFlow

- D. SSO
- E. HSRP

Answer: D

QUESTION 53:

Certkiller .com has deployed a CiscoWorks LMS in its enterprise. The client is now interested in upgrading its routers and switches to a new version of Cisco IOS software. How can LMS help the client prepare for the upgrade?

- A. The LMS system will use the Device Fault Manager to perform fault detection and analysis to identify which devices require upgrades.
- B. The LMS system will use Resource Manager Essentials to perform device inventory and software-image management to identify which devices will require upgrades.
- C. The LMS system will use Campus Manager, which can perform end-station tracking and identify specific end stations that will require upgrades.
- D. The LMS system will use CiscoView to provide device-specific component diagnostics to locate components that will require upgrades.

Answer: B

QUESTION 54:

When using the ISR to implement a NAC solution, the ISR is configured to act as which NAC component?

- A. posture agent
- B. 802.1x supplicant
- C. NAD
- D. AAA server
- E. PVS

Answer: C

QUESTION 55:

Certkiller .com is opening a branch office housing 30 employees. It is beginning to implement IP Phones and plans on deploying a centralized Cisco CallManager cluster. Which two Cisco products should be deployed at the branch office to support IP Phones immediately while allowing migration to the centralized cluster when it is available? (Choose two.)

- A. CUE
- B. CME
- C. SRST

- D. CSA
- E. IPS

Answer: A,B

QUESTION 56:

What are three reasons to design Layer 3 routing into the core of a campus LAN environment?

- A. to implement security
- B. to design scalable networks
- C. to implement address structure
- D. to remove spanning tree from the core
- E. to improve backbone performance

Answer: B,C,D

QUESTION 57:

Refer to the exhibit. The policy map VoiceOut is an outbound service policy on interface serial 0/0. What overall congestion management feature is in use?

Exhibit: *** MISSING ***

- A. class-based weighted fair queuing
- B. weighted fair queuing
- C. priority queuing
- D. custom queuing
- E. low latency queuing

Answer: E

QUESTION 58:

Refer to the exhibit. Certkiller .com has the network shown. The shortest path has indicated that all traffic must go from R2 - R3 - R4 - R5. Due to congestion at R3, you have recommended MPLS TE; as a result, a TE tunnel has been built from R2 to R4 via R6 - R7. As a result of this tunnel being built, which two conditions exist? (Choose two.)

Exhibit: *** MISSING ***

- A. In order to implement MPLS TE the IGP must be either ISIS or OSPF.
- B. QoS must also be configured to ensure that the required bandwidth will be available for all traffic that uses the tunnel.
- C. The TE tunnel must be explicitly configured by the network administrator.
- D. The TE tunnel is bidirectional.
- E. The Resource Reservation Protocol will be used to setup the TE Label Switch Path.

Answer: A,E

QUESTION 59:

Refer to the exhibit. What WAN topology is being used?

Exhibit: *** MISSING ***

- A. multipoint
- B. partial mesh
- C. hub and spoke
- D. full mesh
- E. star
- F. point to point

Answer: B

QUESTION 60:

You have received an RFP from a potential client to design a network for a new corporate campus. This campus will encompass administration, sales, and R&D, and it will pull all the distributed IT functions into a new data center. The campus will consist of five buildings, each with four floors. The buildings will be linked via high-strand-count, single-mode fiber-optic cable to the new data center in building 3. Each building will have an MDF with at least one telco closet per floor and at least two runs of Category 5 UTP cable will go to each work location. Multistrand multimode will connect each telco closet to the MDF. Each MDF will have dedicated power circuits and be backed up by batteries in the basement of each building and a generator. The corporation will require 3500 TDM telephones and approximately 100 of these will be in a call center in building 2. The corporation needs to increase collaboration in the workforce. Employees need the flexibility to be able to move from one floor to another or from one building to another to accomplish their jobs. Managers also need this flexibility without losing connectivity to the corporate network or their phones. Building 4 will house R&D. This portion of the network requires connectivity to the Internet, but it also must restrict which employees have access to certain parts of the R&D network. The data center will house all connections to the Internet and to the PSTN. The corporation also provides access to customers for customized applications support. A network operations center will monitor and maintain the network on a 365/24/7 basis. Which advanced technologies will be applicable to answering this RFP? (Choose three.)

- A. storage
- B. IP communications
- C. security
- D. routing and switching
- E. data center

Answer: A,C,E

QUESTION 61:

Which design takes maximum advantage of many Layer 3 services, including segmentation, load balancing, and failure recovery?

- A. building design
- B. multicast design
- C. backbone design
- D. multilayer campus design

Answer: D

QUESTION 62:

Which is a reliable network auditing methodology for discovering applications on the network and their usage characteristics?

- A. Place a sniffer device on the network to grasp a snapshot of traffic on the network.
- B. Conduct a network usage study over a given period of time.
- C. Conduct a network inventory of servers and applications installed on them.
- D. Interview system administrators regarding the networked applications.

Answer: B

QUESTION 63:

Refer to the exhibit. What are three benefits of extending advanced QoS to the edge of the network? (Choose three.)

Exhibit: *** MISSING ***

- A. minimizes traffic on the backbone
- B. enables immediate classification and marking of traffic
- C. enables easier setup of per-user policies
- D. guarantees end-to-end bandwidth
- E. frees up router processing power

Answer: B,C,E

QUESTION 64:

Refer to the exhibit. In an analysis of the existing customer network shown, you notice that when issuing the show arp command there is no MAC address associated with the workstation. Which of the following could be the reason?

Exhibit: *** MISSING ***

- A. R4 needs to perform a RARP request to retrieve the MAC address of the workstation.
- B. R4 needs to have a static route configured for the workstation in order for the ARP process to return a MAC address.
- C. R4 Ethernet0 interface is running SNAP encapsulation.
- D. The workstation would not return a MAC address because it is not running a routing protocol.
- E. The workstation NIC card is not running the same encapsulation as R4.

Answer: E

QUESTION 65:

Refer to the exhibit. Certkiller .com has merged with another company and has decided to deploy an MPLS VPN to connect that company with its network. Which situation will be the result of implementing an MPLS VPN network?

Exhibit: *** MISSING ***

- A. The PE routers will install the routes learned from the P routers in the appropriate VRF.
- B. The P and PE routers will share a common IGP.
- C. The PE routers will have been configured to run MPLS with the CE routers.
- D. The PE routers will not install the backbone IGP routes in the global routing table, but rather in the MPLS backbone VRF.
- E. The MPLS backbone, the P routers, will require BGP to be implemented to be able to label-switch packets from PE1 to PE2.

Answer: B

QUESTION 66:

What is the difference between the two redundant states that a Cisco Catalyst 6500 Series power supply can operate in?

- A. In redundant mode, one power supply works until it reaches 50 percent power consumption, then the load is shared equally across the power supplies.
- B. In redundant mode, both power supplies work at 50 percent of capacity, and in a nonredundant mode, the power available to the system is the combined power capability of both power supplies.
- C. In redundant mode, one power supply works at 100 percent of capacity while the other provides instantaneous backup, and in combined mode the output of each power supply is configured by the user.
- D. In redundant mode, both power supplies work at 50 percent of capacity, and in nonredundant mode the output of each power supply is configured by the user.

Answer: B

QUESTION 67:

To improve performance on the ISR platforms when supporting concurrent integrated services, the network modules, HWICs, AIMs, and DSPs connect directly into which hardware component?

- A. PCI bus
- B. crossbar bus
- C. custom ASIC
- D. SCSI bus
- E. CPU

Answer: C

QUESTION 68:

Which option makes the Cisco 3200 Series Mobile Access Router a compelling platform for public safety applications?

- A. support for 4.9-GHz WMIC
- B. support for up to 512 stations with TKIP and AES-CCM encryption
- C. integrated support for 802.11a/b/g"
- D. ability for 2.4-GHz WMIC to act as a WDS server at a hotspot

Answer: A

QUESTION 69:

Refer to the exhibit. What are three key benefits of implementing this branch solution using the components listed? (Choose three.)

Exhibit: *** MISSING ***

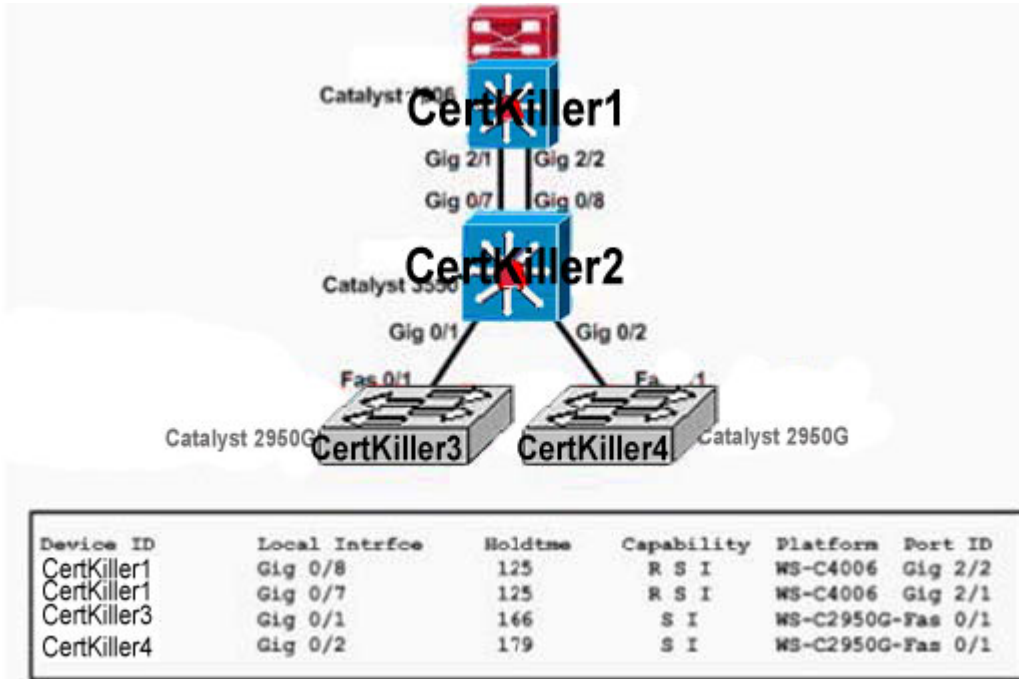
- A. maximizes concurrent routing and switching performance by using local processors and switching engines
- B. supports standard 802.3af PoE
- C. provides feature parity with the Cisco Catalyst 3750 Series of switches
- D. provides integrated configuration of both routing and switching functions under a single Cisco IOS instance.
- E. switch ports can be stacked with external Catalyst Series switches using Cisco StackWise technology

Answer: A,B,C

QUESTION 70:

Refer to the exhibit. Based on this network diagram and output from a show cdp neighbors Cisco IOS command, on which network device is the command being executed?

Exhibit:



- A. Certkiller 2
- B. Certkiller 4
- C. Certkiller 3
- D. Certkiller 1

Answer: A

QUESTION 71:

Which three features are supported by the Cisco 7600 Series router? (Choose three.)

- A. high performance, with a 720-Gbps capacity per slot
- B. 3-, 6-, 9-, 13-slot chassis
- C. IP/MPLS provider edge router
- D. all models are NEBS compliant
- E. Metro Ethernet connectivity

Answer: B,C,E

Explanation:

B is a correct answer, because all four chassis types are indeed supported, which you can verify

at this link:

http://www.cisco.com/en/US/products/hw/routers/ps368/products_installation_guide_chapter09186a008007c8a8.html

Answer A is an incorrect answer, because the 720-Gbps capacity is per backplane, not per slot (40Gbps per slot), which you can verify at this link:

<http://www.cisco.com/en/US/products/hw/routers/ps368/index.html>

QUESTION 72:

An administrator wishes to connect two Cisco Catalyst 3750 Series Switches in a back-to-back configuration. A straight-through Category 5e cable is used. What is the result of making this connection?

- A. The connection will fail because the connection requires a Category 6 or higher cable.
- B. The connection will succeed as the switches will automatically adjust to the cable type.
- C. The connection will succeed after manually configuring one of the interfaces as a crossover port.
- D. The connection will fail as the TX and RX pins are not properly aligned.
- E. The connection will fail; a back-to-back connection requires a crossover cable.

Answer: B

QUESTION 73:

Refer to the exhibit. Which would be a benefit of designing the OSPF network as shown?

Exhibit: *** MISSING ***

- A. Routes can be redistributed within the individual areas.
- B. The backbone area does not need any internal routers.
- C. Route summarization is enabled by default in this type of configuration.
- D. Route summarization configuration at the ABRs is greatly simplified.

Answer: D

QUESTION 74:

You are required to upgrade the network of a multistory branch office building to support Cisco 7970 IP Phones throughout. Given that each phone uses 15.4 W, how many phones can a Cisco Catalyst 3750 support using Cisco Intelligent Power Management in a 48-port PoE configuration?

- A. 32
- B. 8
- C. 48
- D. 24

E. 16

Answer: D

QUESTION 75:

Which type of network traffic is characterized as smooth, benign, drop-sensitive, and delay-sensitive and is typically UDP based?

- A. voice to voice
- B. data to data
- C. voice to video
- D. video to data

Answer: A

QUESTION 76:

In the Cisco Catalyst 6513 Switch, which slots support the Supervisor Engine 720 and Supervisor Engine 32?

- A. slots 7 and 8
- B. any slot
- C. slots 1 and 2
- D. slots 5 and 6
- E. slots 12 and 13

Answer: A

QUESTION 77:

You are working with a client that has deployed CiscoWorks LMS in conjunction with an IP communications solution. The client has a current requirement to track IP communications end stations. Which CiscoWorks LMS component would the client need to use?

- A. CiscoWorks Resource Manager Essentials
- B. CiscoWorks CiscoView
- C. CiscoWorks Device Fault Manager
- D. CiscoWorks Internetwork Performance Monitor
- E. CiscoWorks Campus Manager

Answer: E

QUESTION 78:

642-054

In a Cisco Catalyst 6509 Switch, in which slots can the Sup2 card be installed?

- A. slots 1 and 2
- B. any slot
- C. slots 1 through 9
- D. slots 3 and 4
- E. slots 5 and 6

Answer: E

Explanation: Sup720 can only be installed in slot 5 and 6.