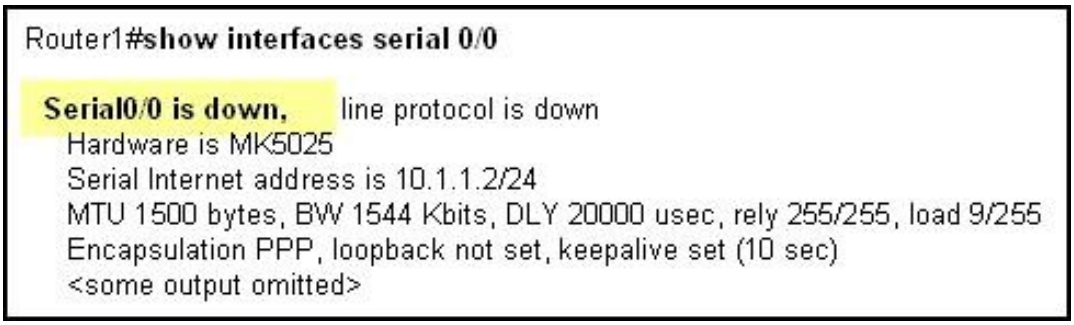
Topic 1, Volume A

QUESTION NO: 1

Refer to the exhibit. What could be possible causes for the "Serial0/0 is down" interface status? (Choose two.)



A. A Layer 1 problem exists.
B. The bandwidth is set too low.
C. A protocol mismatch exists
D. An incorrect cable is being used.
E. There is an incorrect IP address on the Serial 0/0 interface.

Answer: A,D

Explanation:

QUESTION NO: 2

Before installing a new, upgraded version of the IOS, what should be checked on the router, and which command should be used to gather this information? (Choose two.)

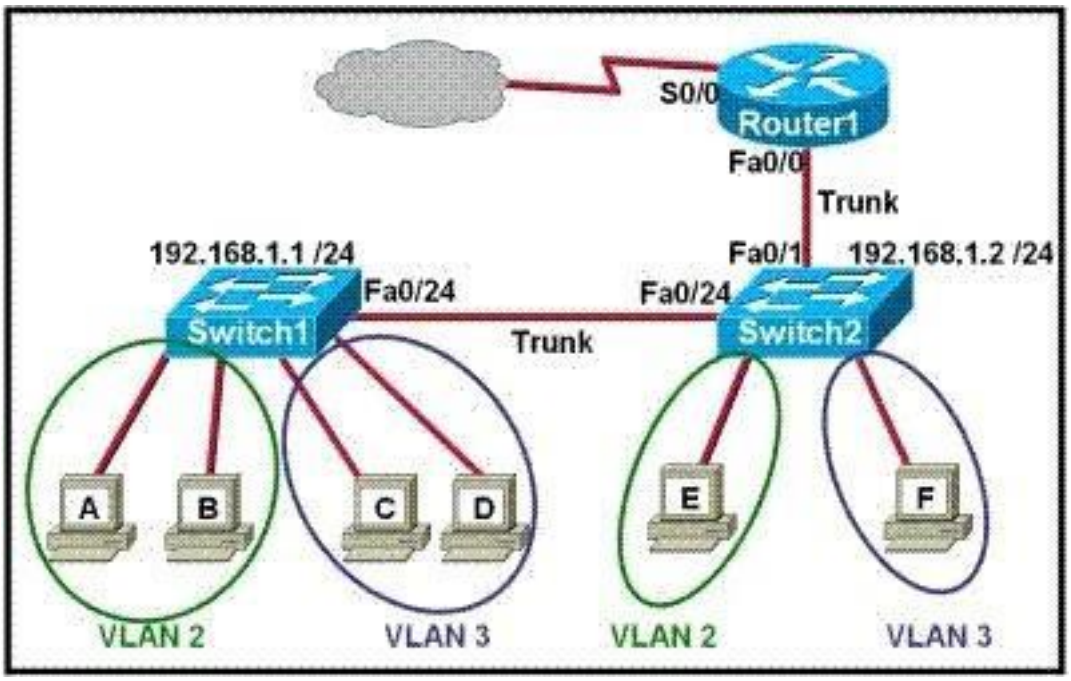
A. the amount of available ROM
B. the amount of available flash and RAM memory
C. the version of the bootstrap software present on the router
D. show version
E. show processes
F. show running-config

Answer: B,D

Explanation:

QUESTION NO: 3

Refer to the exhibit. Which two statements are true about interVLAN routing in the topology that is shown in the exhibit? (Choose two.)



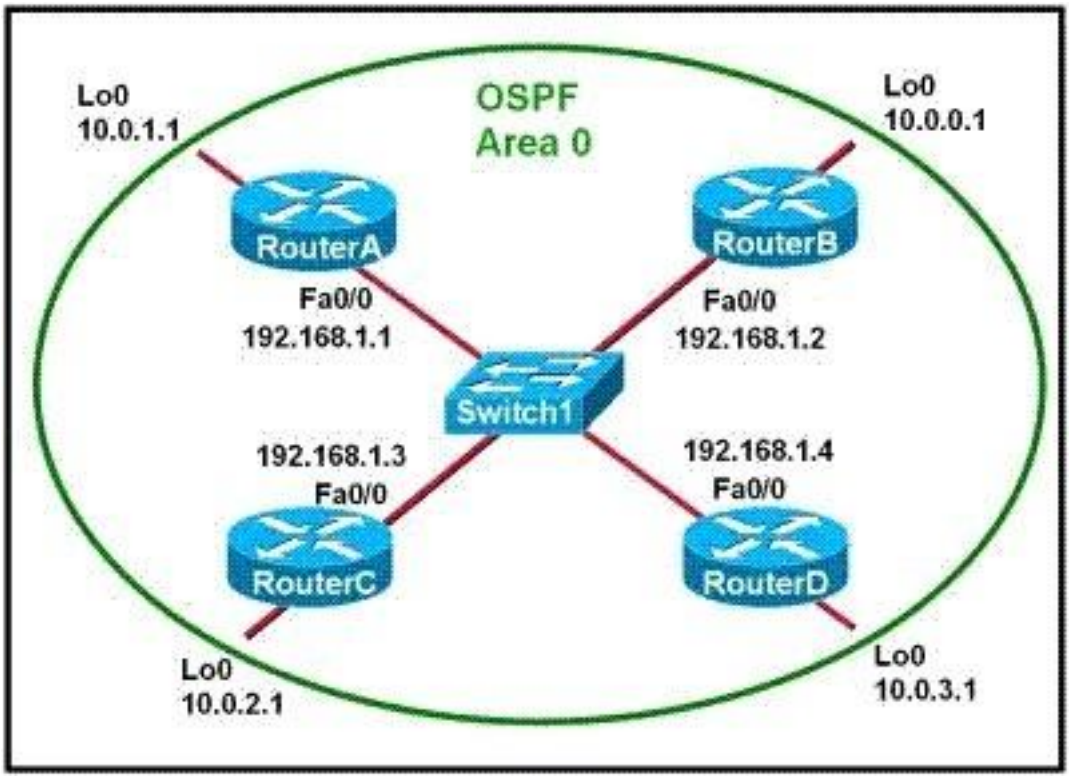
A. Host E and host F use the same IP gateway address.
B. Router1 and Switch2 should be connected via a crossover cable.
C. Router1 will not play a role in communications between host A and host D.
D. The FastEthernet 0/0 interface on Router1 must be configured with subinterfaces.
E. Router1 needs more LAN interfaces to accommodate the VLANs that are shown in the exhibit.
F. The FastEthernet 0/0 interface on Router1 and Switch2 trunk ports must be configured using the same encapsulation type.

Answer: D,F

Explanation:

QUESTION NO: 4

Refer to the exhibit. Which two statements are true about the loopback address that is configured on RouterB? (Choose two.)



A. It ensures that data will be forwarded by RouterB.
B. It provides stability for the OSPF process on RouterB.
C. It specifies that the router ID for RouterB should be 10.0.0.1.
D. It decreases the metric for routes that are advertised from RouterB.
E. It indicates that RouterB should be elected the DR for the LAN.

Answer: B,C

Explanation:

QUESTION NO: 5

If you are a network administrator, how will you explain VTP configuration to a new technician? (Choose three.)

A. In the VTP client mode, a switch is unable to update its local VLAN database.
B. Configure a trunk link between the switches to forward VTP updates.
C. In the VTP server mode, a switch is able to update a switch in the VTP transparent mode.
D. In the VTP transparent mode, a switch will forward the received updates to other switches.
E. A switch in the VTP server mode only updates switches in the VTP client mode that have a higher VTP revision number.
F. A switch in the VTP server mode will update switches in the VTP client mode regardless of the configured VTP domain membership.

Answer: A,B,D

Explanation:

VTP operates in one of three modes:

Server - In this VTP mode you can create, remove, and modify VLANs. You can also set other configuration options like the VTP version and also turn on/off VTP pruning for the entire VTP domain. VTP servers advertise their VLAN configuration to other switches in the same VTP domain and synchronize their VLAN configuration with other switches based on messages received over trunk links. VTP server is the default mode. The VLANs information are stored on NVRAM and they are not lost after a reboot.

Client - VTP clients behave the same way as VTP servers, but you cannot create, change, or delete VLANs on the local device. In VTP client mode, VLAN configurations are not saved in NVRAM.

QUESTION NO: 6

Cisco IOS (originally Internetwork Operating System) is the software used on the vast majority of Cisco Systems routers and all current Cisco network switches. Which two of the following devices could you configure as a source for the IOS image in the boot system command? (Choose two.)

A. RAM
B. NVRAM
C. flash memory
D. HTTP server
E. TFTP server
F. Telnet server

Answer: C,E

Explanation:

QUESTION NO: 7

What are two reasons a network administrator would use CDP? (Choose two.)

A. to obtain VLAN information from directly connected switches
B. to determine the status of network services on a remote device
C. to determine the status of the routing protocols between directly connected routers
D. to verify the type of cable interconnecting two devices
E. to verify Layer 2 connectivity between two devices when Layer 3 fails

F. to obtain the IP address of a connected device in order to telnet to the device

Answer: E,F

Explanation:

Cisco Discovery Protocol (CDP) is primarily used to obtain protocol addresses of neighboring devices and discover the platform of those devices. CDP can also be used to show information about the interfaces your router uses. CDP is an independent media protocol and runs on all Cisco-manufactured devices including routers, bridges, access servers, and switches. It should be noted that CDP is a protocol which works on the layer2. By default, multicast advertise is sent every 60 seconds to 01-00-0 c-cc-cc-cc as the destination address . When reaching the holdtime of 180 seconds , if not receiving the advertise from neighboring devices yet, the information of neighboring devices will be cleared.

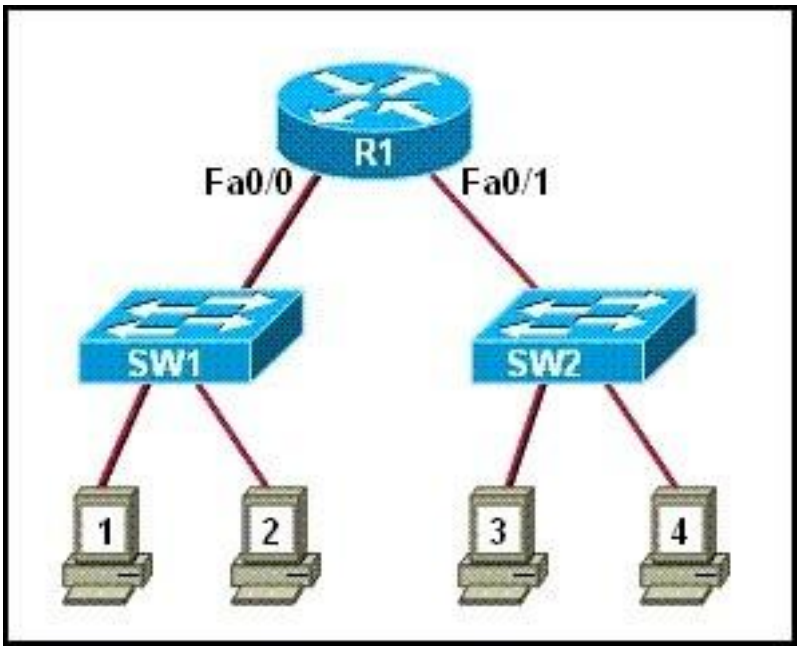
Cisco Discovery Protocol (CDP) is a proprietary protocol designed by Cisco to help administrators collect information about both locally attached and remote devices. By using CDP, you can gather hardware and protocol information about neighbor devices, which is useful info for troubleshooting and documenting the network.

You can use:

Show cdp neighbor
Show cdp neighbor details
Commands to gather the information of connected neighbors.

QUESTION NO: 8

Refer to the exhibit. Both switches are using a default configuration. Which two destination addresses will host 4 use to send data to host 1? (Choose two.)



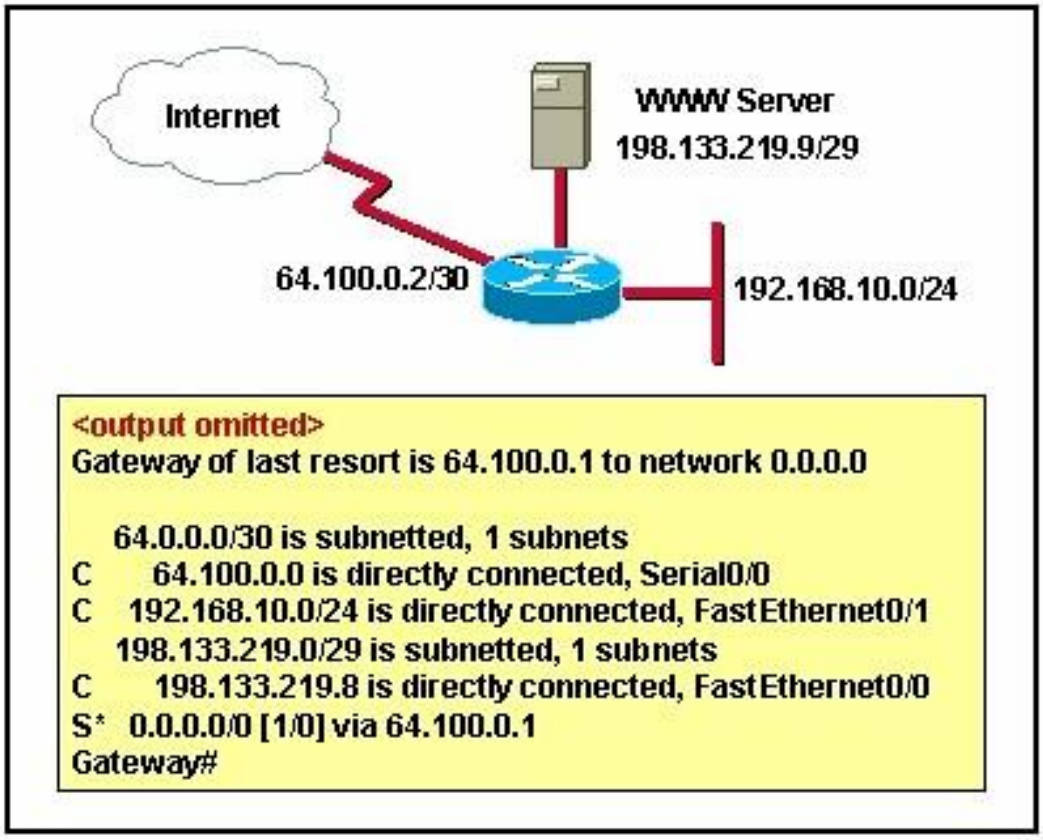
A. the IP address of host 1
B. the IP address of host 4
C. the MAC address of host 1
D. the MAC address of host 4
E. the MAC address of the Fa0/0 interface of the R1 router
F. the MAC address of the Fa0/1 interface of the R1 router

Answer: A,F

Explanation:

QUESTION NO: 9

Exhibit:



Refer to the exhibit. The router has been configured with these commands:

```
hostname Gateway
interface FastEthernet 0/0
 ip address 198.133.219.14 255.255.255.248
 no shutdown
interface FastEthernet 0/1
 ip address 192.168.10.254 255.255.255.0
 no shutdown
interface Serial 0/0
 ip address 64.100.0.2 255.255.255.252
 no shutdown
ip route 0.0.0.0 0.0.0.0 64.100.0.1
```

What are the two results of this configuration? (Choose two.)

A. The default route should have a next hop address of 64.100.0.3.
B. Hosts on the LAN that is connected to FastEthernet 0/1 are using public IP addressing.
C. The address of the subnet segment with the WWW server will support seven more servers.
D. The addressing scheme allows users on the Internet to access the WWW server.
E. Hosts on the LAN that is connected to FastEthernet 0/1 will not be able to access the Internet

without address translation.

Answer: D,E

Explanation:

Since the hosts on the Fast Ethernet 0/1 network are using private RFC 1918 IP addressing (192.168.10.0/24) their IP addresses will need to be translated into a publicly routable address in order to access the Internet. However, the server is using the 198.133.219.9 IP address, which is publicly routable and so Internet users can indeed access this server (assuming that the 198.133.219.9 IP address has been correctly assigned to the network)

QUESTION NO: 10

Your Company has installed IP phones. Both the phones and the office computers connect to the same device. The phone traffic and the office computer data traffic must be on different networks to ensure maximum throughput for the phone data. Which network device can be best connected to the phones and computers, and which technology will be performed on this device? (Choose two.)

A. hub
B. router
C. switch
D. stp
E. subinterfaces
F. VLAN

Answer: C,F

Explanation:

You can configure VLANs on the switch to distinguish two types of data traffic.

QUESTION NO: 11

Which two benefits can be obtained by using VTP in a switching environment? (Choose two.)

A. Allowing frames from multiple VLANs to use a single interface.
B. Allowing switches to read frame tags.
C. Maintaining VLAN consistency across a switched network.
D. Allowing VLAN information to be automatically propagated throughout the switching environment.

E. It allows ports to be assigned to VLANs automatically.

Answer: C,D

Explanation:

VTP minimizes the possible configuration inconsistencies that arise when changes are made. These inconsistencies can result in security violations, because VLANs can crossconnect when duplicate names are used. They also could become internally disconnected when they are mapped from one LAN type to another, for example, Ethernet to ATM LANE ELANs or FDDI 802.10 VLANs. VTP provides a mapping scheme that enables seamless trunking within a network employing mixed-media technologies.

VTP provides the following benefits:

QUESTION NO: 12

Which two statements are true about the command ip route 172.16.3.0 255.255.255.0 192.168.2.4? (Choose two.)

A. It establishes a static route to the 172.16.3.0 network.
B. It configures the router to send any traffic for an unknown destination to the 172.16.3.0 network.
C. It creates a static route to the 192.168.2.0 network.
D. It uses the default administrative distance.
E. It configures the router to send any traffic for an unknown destination out the interface with the address 192.168.2.4.
F. It is a route that would be used last if other routes to the same destination exist.

Answer: A,D

Explanation:

This question is to examine the static route-related concept.

ip route 172.16.3.0 255.255.255.0 192.168.2.4

This is a static route configuration command. 172.16.3.0 is the destination network, 192.168.2.4 is the next hop.

The administrative distance is not configured, so the default administrative distance is used. The correct answers are A and D.

QUESTION NO: 13

Which two of the following are advantages of Layer 2 Ethernet switches over hubs? (Choose two.)

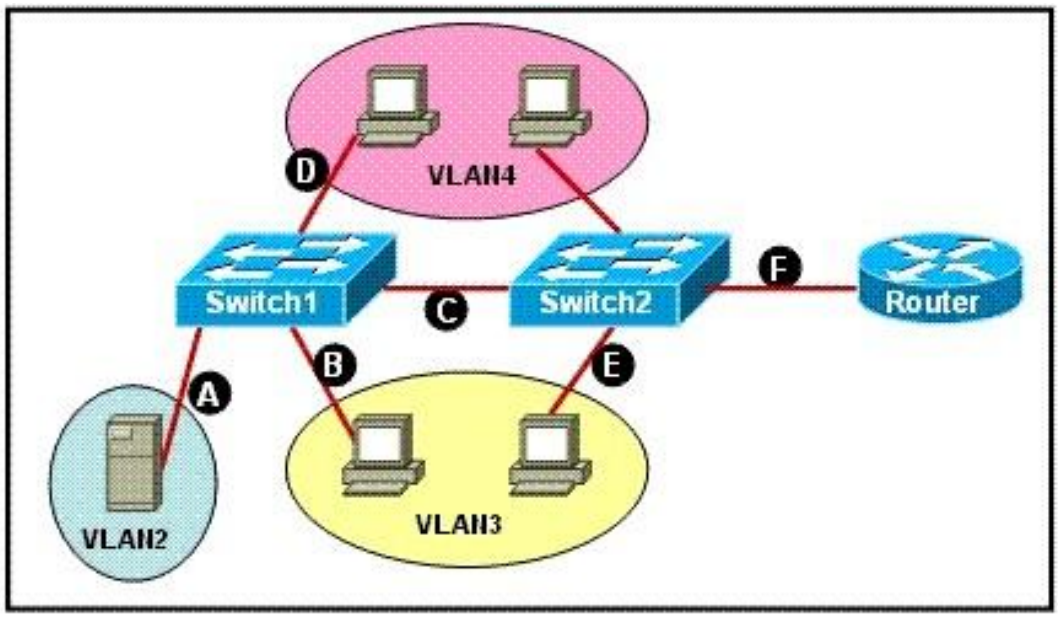
A. To increase the size of broadcast domains
B. To filter frames according to MAC addresses
C. To allow simultaneous frame transmissions
D. To increase the maximum length of UTP cabling between devices
E. decreasing the number of collision domains
F. increasing the size of broadcast domains

Answer: B,C

Explanation:

QUESTION NO: 14

Refer to the exhibit. A network associate needs to configure the switches and router in the graphic so that the hosts in VLAN3 and VLAN4 can communicate with the enterprise server in VLAN2. Which two Ethernet segments would need to be configured as trunk links? (Choose two.)



A. A
B. B
C. C
D. D
E. E
F. F

Answer: C,F

Explanation:

Layer 3 routing is needed to implement communication between VLANs, so a trunk link is configured between ROuter and Switch2. Both Switch1 and Switch2own VLAN3 and VLAN4 members, so a trunk link is configured between Switch1 and Switch2.

QUESTION NO: 15

Which two values are used by Spanning Tree Protocol to elect a root bridge? (Choose two.)

A. bridge priority
B. IP address
C. MAC address
D. IOS version
E. amount of RAM
F. speed of the links

Answer: A,C

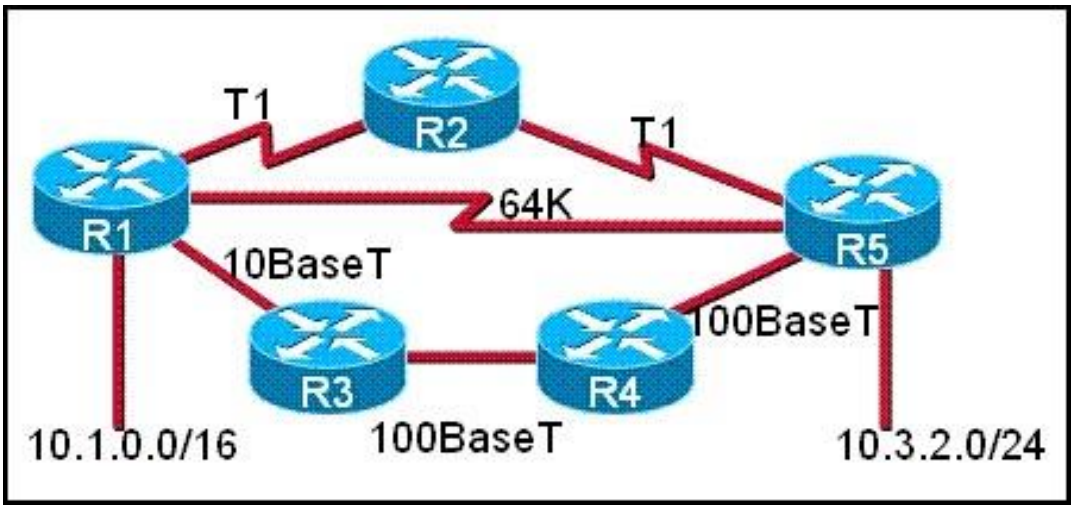
Explanation:

Two values are compared to elect a root bridge in STP: bridge priority and MAC address.

Switch having lowest bridge ID will become the root bridge. The bridge ID is how STP keeps track of all the switches in the network. It is determined by a combination of the bridge priority (32,768 by default on all Cisco switches) and the base MAC address. The bridge with the lowest bridge ID becomes the root bridge in the network.

QUESTION NO: 16

Refer to the exhibit. Assume that the routing protocol referenced in each choice below is configured with its default settings and the given routing protocol is running on all the routers. Which two conditional statements accurately state the path that will be chosen between networks 10.1.0.0 and 10.3.2.0 for the routing protocol mentioned? (Choose two.)



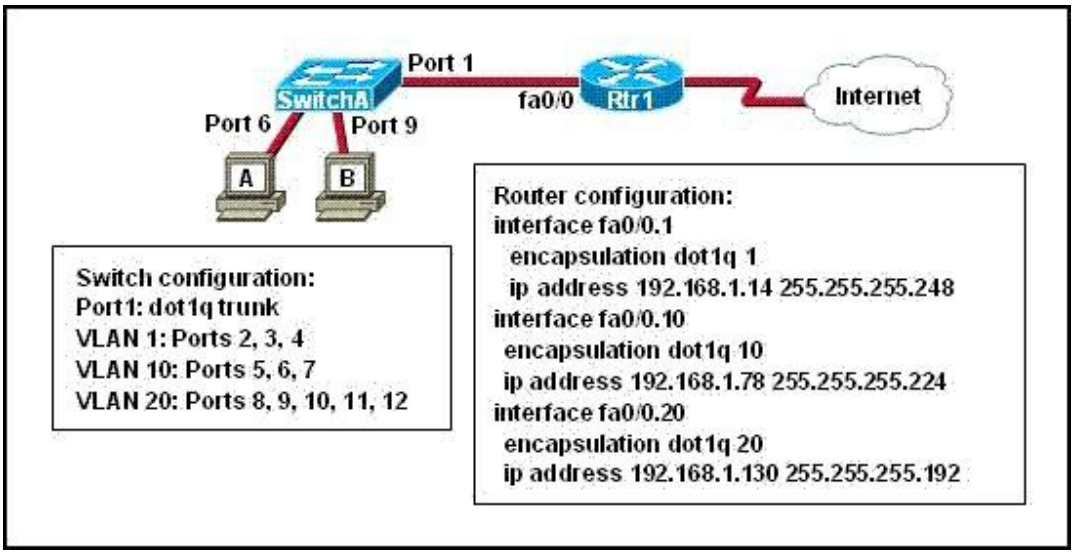
A. If OSPF is the routing protocol, the path will be from R1 to R3 to R4 to R5.
B. If OSPF is the routing protocol, the path will be from R1 to R2 to R5.
C. If OSPF is the routing protocol, the path will be from R1 to R5.
D. If RIPv2 is the routing protocol, the path will be from R1 to R3 to R4 to R5.
E. If RIPv2 is the routing protocol, the path will be from R1 to R5.

Answer: A,E

Explanation:

QUESTION NO: 17

Refer to the exhibit. A network administrator is adding two new hosts to SwitchA. Which three values could be used for the configuration of these hosts? (Choose three.)



A. host A IP address: 192.168.1.79

B. host A IP address: 192.168.1.64
C. host A default gateway: 192.168.1.78
D. host B IP address: 192.168.1.128
E. host B default gateway: 192.168.1.129
F. host B IP address: 192.168.1.190

Answer: A,C,F

Explanation:

QUESTION NO: 18

What will happen after changing the configuration register to 0x2142 and rebooting the router? (Choose two.)

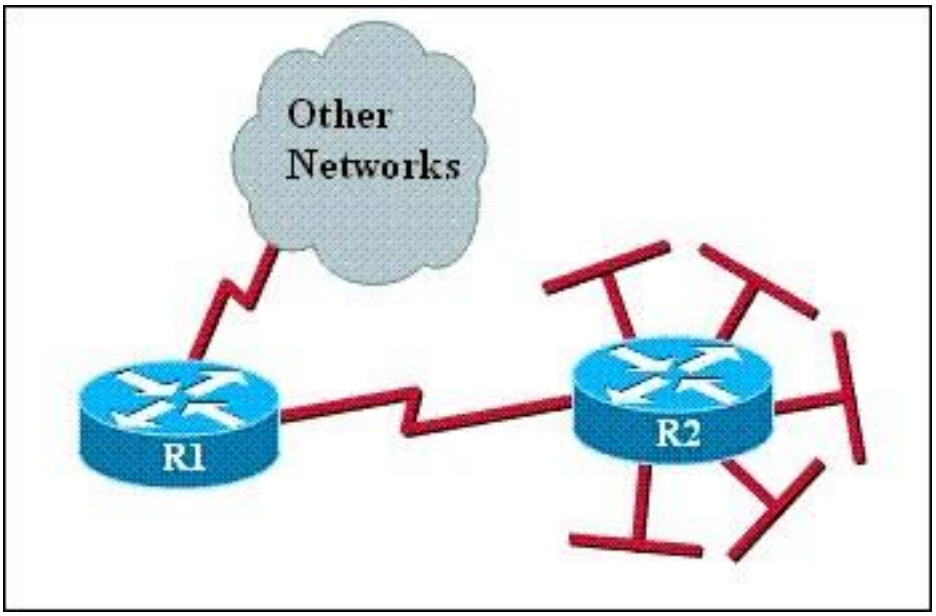
A. The IOS image will be ignored.
B. The router will prompt to enter initial configuration mode.
C. The router will boot to ROM.
D. Any configuration entries in NVRAM will be ignored.
E. The configuration in flash memory will be booted.

Answer: B,D

Explanation:

QUESTION NO: 19

Refer to the exhibit. The networks connected to router R2 have been summarized as a 192.168.176.0/21 route and sent to R1. Which two packet destination addresses will R1 forward to R2? (Choose two.)



A. 192.168.194.160
B. 192.168.183.41
C. 192.168.159.2
D. 192.168.183.255
E. 192.168.179.4
F. 192.168.184.45

Answer: B,E

Explanation:

QUESTION NO: 20

Which three statements are typical characteristics of VLAN arrangements? (Choose three.)

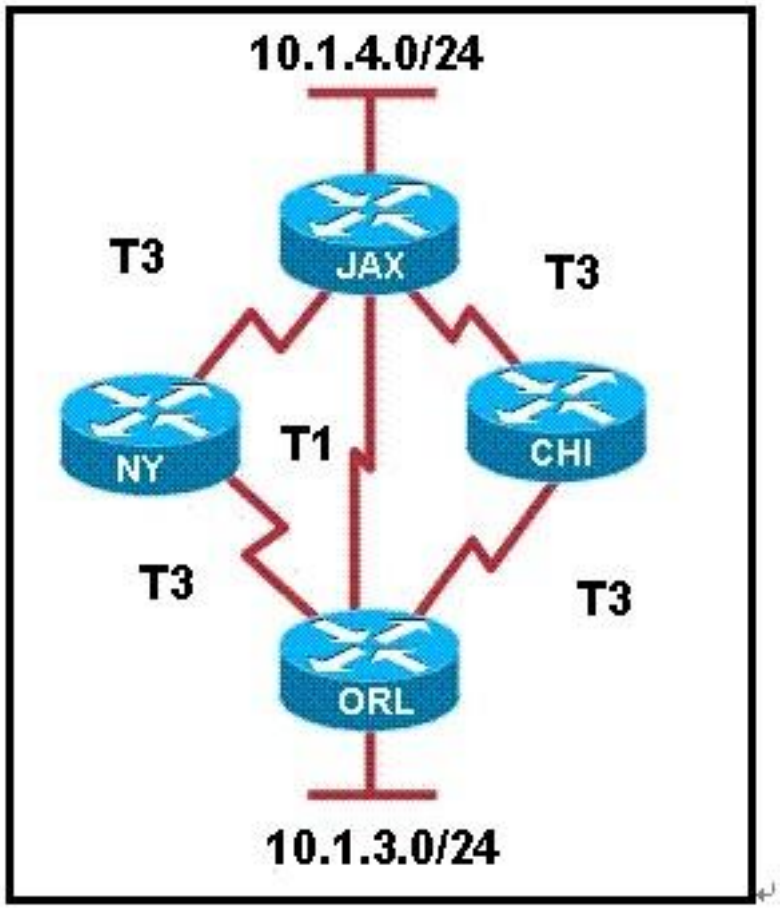
A. A new switch has no VLANs configured.
B. Connectivity between VLANs requires a Layer 3 device.
C. VLANs typically decrease the number of collision domains.
D. Each VLAN uses a separate address space.
E. A switch maintains a separate bridging table for each VLAN.
F. VLANs cannot span multiple switches.

Answer: B,D,E

Explanation:

QUESTION NO: 21

Refer to the exhibit. Which three statements are true about how router JAX will choose a path to the 10.1.3.0/24 network when different routing protocols are configured? (Choose three.)

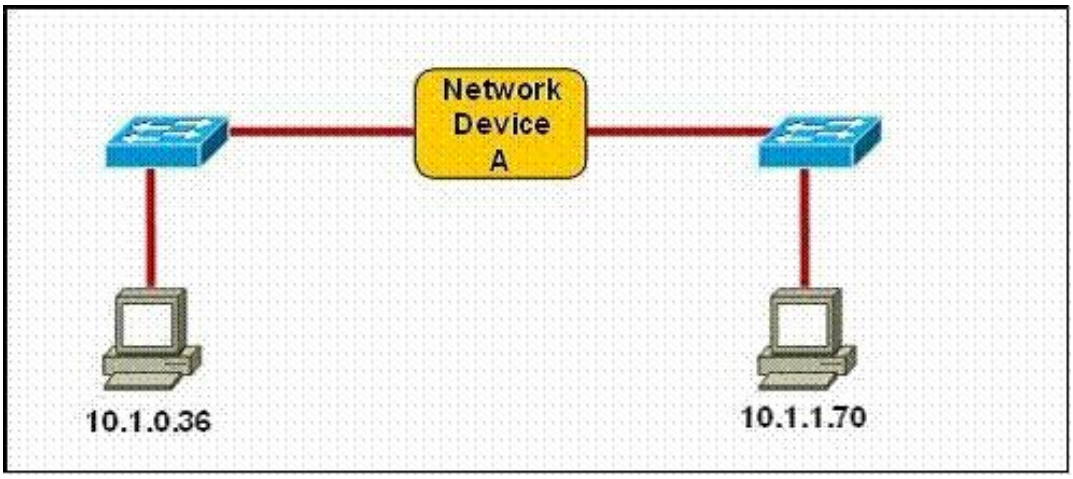


A. By default, if RIPv2 is the routing protocol, only the path JAX-ORL will be installed into the routing table.
B. The equal cost paths JAX-CHI-ORL and JAX- NY-ORL will be installed in the routing table if RIPv2 is the routing protocol.
C. When EIGRP is the routing protocol, only the path JAX-ORL will be installed in the routing table by default.
D. When EIGRP is the routing protocol, the equal cost paths JAX-CHI-ORL, and JAX-NY-ORL will be installed in the routing table by default.
E. With EIGRP and OSPF both running on the network with their default configurations, the EIGRP paths will be installed in the routing table.
F. The OSPF paths will be installed in the routing table, if EIGRP and OSPF are both running on the network with their default configurations.

Answer: A,D,E

Explanation:

QUESTION NO: 22
Refer to the exhibit. Which three statements correctly describe Network Device A? (Choose three.)



A. With a network wide mask of 255.255.255.128, each interface does not require an IP address.
B. With a network wide mask of 255.255.255.128, each interface does require an IP address on a unique IP subnet.
C. With a network wide mask of 255.255.255.0, must be a Layer 2 device for the PCs to communicate with each other.
D. With a network wide mask of 255.255.255.0, must be a Layer 3 device for the PCs to communicate with each other.
E. With a network wide mask of 255.255.254.0, each interface does not require an IP address.

Answer: B,D,E

Explanation:

QUESTION NO: 23

On the basis of the IEEE 802.1w standard, which two switch ports can forward traffic?

A. alternate
B. backup
C. designated
D. disabled
E. root

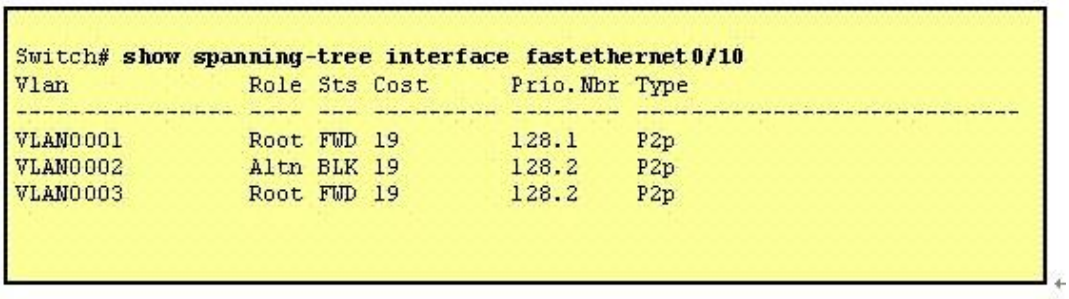
Answer: C,E

Explanation:

QUESTION NO: 24

Refer to the exhibit. Given the output shown from this Cisco Catalyst 2950, what is the most likely

reason that interface FastEthernet 0/10 is not the root port for VLAN 2?



```
Switch# show spanning-tree interface fastethernet0/10
Vlan             Role Sts Cost      Prio.Nbr Type
---------------- ---- --- --------- -------- --------------------------------
VLAN0001         Root FWD 19        128.1    P2p
VLAN0002         Altn BLK 19        128.2    P2p
VLAN0003         Root FWD 19        128.2    P2p
```

A. This switch has more than one interface connected to the root network segment in VLAN 2.
B. This switch is running RSTP while the elected designated switch is running 802.1d Spanning Tree.
C. This switch interface has a higher path cost to the root bridge than another in the topology.
D. This switch has a lower bridge ID for VLAN 2 than the elected designated switch.

Answer: C

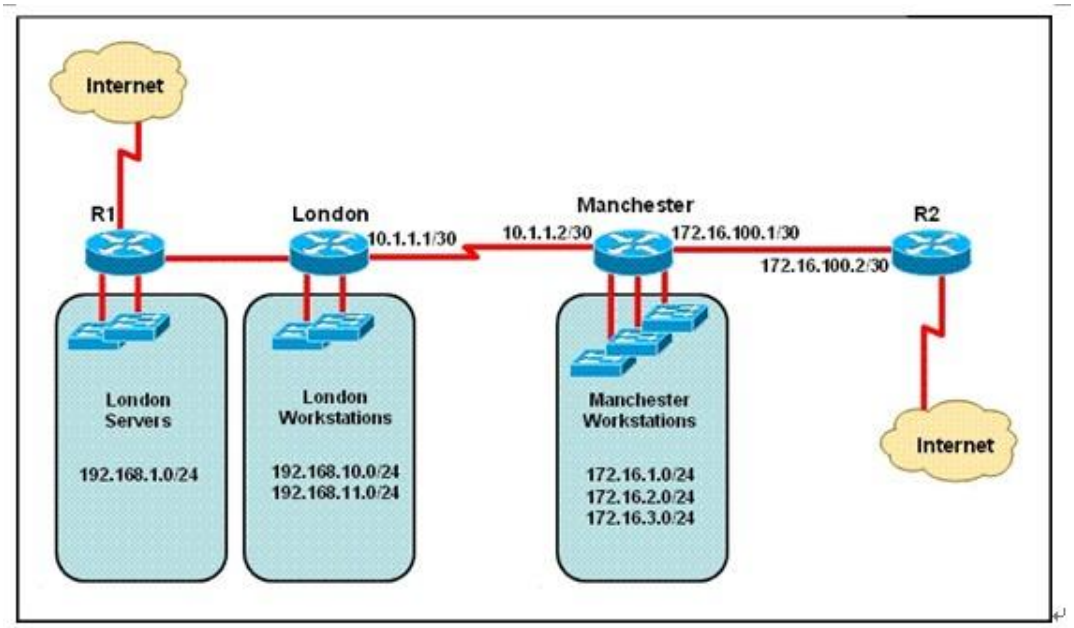
Explanation:

This question is to check the STP technology.

When STP is running in a network with loops, ports will transition into the forwarding state or the blocking state. Here decisive factor is the cost to reach the root bridge, the port with the higher cost is in the blocking state, while the port with the lower cost is in the forwarding state.

QUESTION NO: 25

Refer to the exhibit. The network administrator must establish a route by which London workstations can forward traffic to the Manchester workstations. What is the simplest way to accomplish this?



A. Configure a dynamic routing protocol on London to advertise all routes to Manchester.
B. Configure a dynamic routing protocol on London to advertise summarized routes to Manchester.
C. Configure a dynamic routing protocol on Manchester to advertise a default route to the London router.
D. Configure a static default route on London with a next hop of 10.1.1.1.
E. Configure a static route on London to direct all traffic destined for 172.16.0.0/22 to 10.1.1.2.
F. Configure Manchester to advertise a static default route to London.

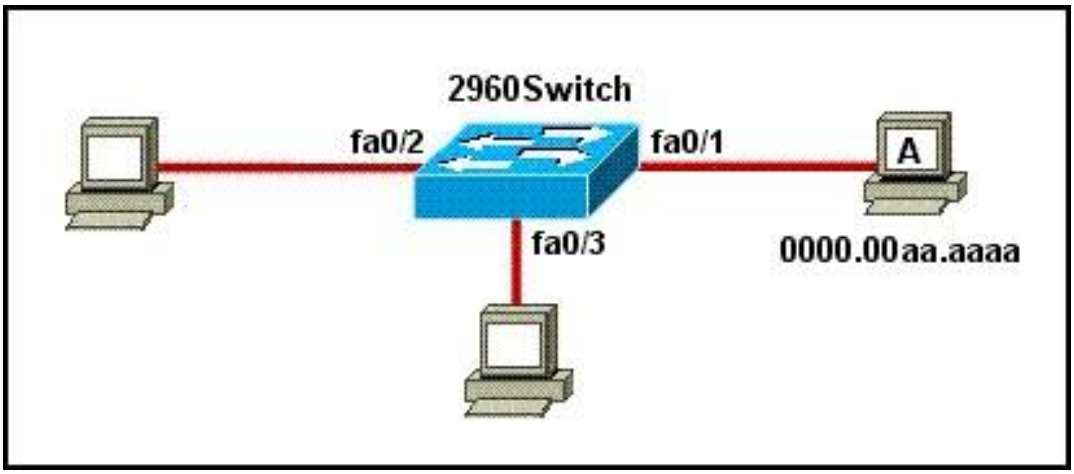
Answer: E

Explanation:

QUESTION NO: 26

Refer to the exhibit. This command is executed on 2960Switch:

2960Switch(config)# mac-address-table static 0000.00aa.aaaa vlan 10 interface fa0/1



Which two of these statements correctly identify results of executing the command? (Choose two.)

A. Port security is implemented on the fa0/1 interface.
B. MAC address 0000.00aa.aaaa does not need to be learned by this switch.
C. Only MAC address 0000.00aa.aaaa can source frames on the fa0/1 segment.
D. Frames with a Layer 2 source address of 0000.00aa.aaaa will be forwarded out fa0/1.
E. MAC address 0000.00aa.aaaa will be listed in the MAC address table for interface fa0/1 only.

Answer: B,E

Explanation:

QUESTION NO: 27

Which of the following describes the roles of devices in a WAN? (Choose three.)

A. A CSU/DSU terminates a digital local loop.
B. A modem terminates a digital local loop.
C. A CSU/DSU terminates an analog local loop.
D. A modem terminates an analog local loop.
E. A router is commonly considered a DTE device.
F. A router is commonly considered a DCE device.

Answer: A,D,E

Explanation:

Layer 2 switching is considered hardware-based bridging because it uses specialized hardware called an application-specific integrated circuit (ASIC). ASICs can run up to gigabit speeds with very low latency rates.

A router is commonly considered to be a DTE device, while a CSU/DSU is considered the DCE device.

Switches usually have higher port number then bridge. Generally bridges have two ports. Both

operates on Data link layer.

QUESTION NO: 28

What are two characteristics of Telnet? (Choose two.)

A. It sends data in clear text format.
B. It is no longer supported on Cisco network devices.
C. It is more secure than SSH.
D. It requires an enterprise license in order to be implemented.
E. It requires that the destination device be configured to support Telnet connections.

Answer: A,E

Explanation:

Telnet sends data in clear text. If a remote device wants to access the destination device through Telnet, the destination device must be configured to support Telnet connections.

QUESTION NO: 29

Which two security appliances will you use in a network? (Choose two.)

A. ATM
B. ids
C. ios
D. iox
E. ips
F. SDM

Answer: B,E

Explanation:

QUESTION NO: 30

A single 802.11g access point has been configured and installed in the center of a square office. A few wireless users are experiencing slow performance and drops while most users are operating at peak efficiency. What are three likely causes of this problem? (Choose three.)

A. mismatched TKIP encryption
B. null SSID
C. cordless phones
D. mismatched SSID
E. metal file cabinets
F. antenna type or direction

Answer: C,E,F

Explanation:

A. Cordless phones may interfere in wireless NIC.

B. mismatched SSID

SSID(Service Set Identifier)can also be written as ESSID, which is used to distinguish different networks and has 32 characters at most , WLAN cards set up different SSID to enter different networks. SSID is usually broadcast by AP, you can view SSID of the present area through XP built-in scanning feature .Taking security into consideration, SSID can be not broadcast, meanwhile users need to set up SSID manually to enter the appropriate network. In simple terms, SSID is the name of a local area network; only those computers that set up the same SSID values can communicate with each other. If SSID fails to match, wireless will fail in connection, and no wireless network inefficiency will appear.

C. metal file cabinets may have a certain amount of shielding

D. antenna type or direction

QUESTION NO: 31

Given that Host A and Host B are in different networks. When Host A is trying to communicate with Host B, which step will Host A take first?

A. Send a TCP SYN and wait for the SYN ACK with the IP address of Host B.
B. Drop the data.
C. Create an ARP request to get a MAC address for Host B.
D. Send the data frames to the default gateway.

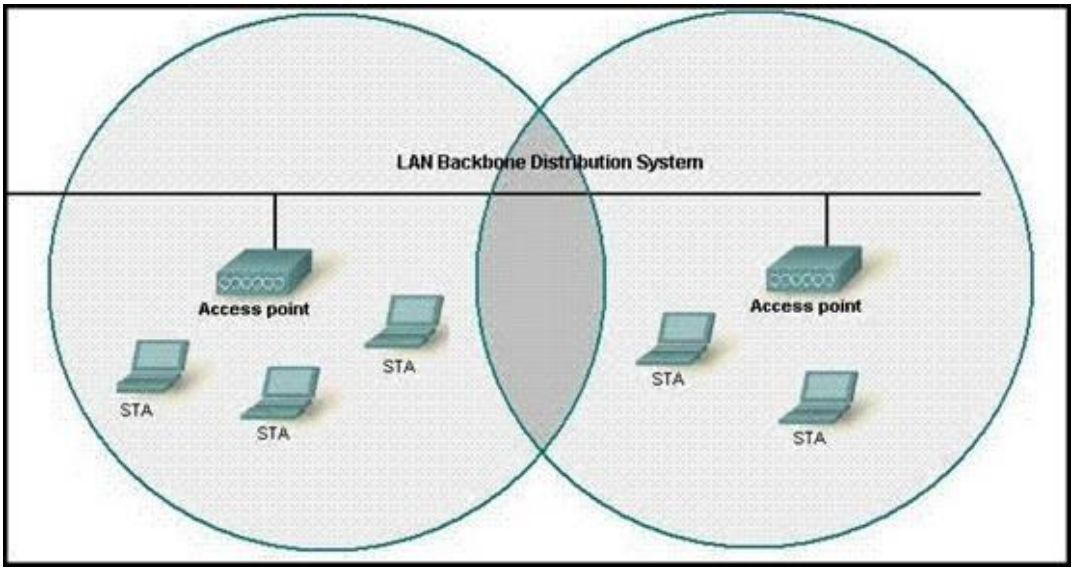
Answer: D

Explanation:

The answer “Create an ARP request to get a MAC address for Host B.” is NOT correct, the host will know if the destination is not on the local network and will send to MAC address of its default gateway setting, it will not ARP for MAC address of remote destination.

QUESTION NO: 32

Refer to the exhibit. What two facts can be determined from the WLAN diagram? (Choose two.)



A. The area of overlap of the two cells represents a basic service set (BSS).
B. The network diagram represents an extended service set (ESS).
C. Access points in each cell must be configured to use channel 1.
D. The area of overlap must be less than 10% of the area to ensure connectivity.
E. The two APs should be configured to operate on different channels.

Answer: B,E

Explanation:

QUESTION NO: 33

Which two devices can interfere with the operation of a wireless network because they operate on similar frequencies? (Choose two.)

A. toaster
B. IP phone
C. AM radio
D. cordless phone
E. microwave oven
F. copier

Answer: D,E

Explanation:

The microwave and cordless phone in the 2.4GHz spectrum band will interfere with the operation

of a wireless network.

QUESTION NO: 34

Which two descriptions are correct about characteristics of IPv6 unicast addressing? (Choose two.)

A. Global addresses start with 2000::/3.
B. Link-local addresses start with FE00:/12.
C. Link-local addresses start with FF00::/10.
D. There is only one loopback address and it is ::1.
E. If a global address is assigned to an interface, then that is the only allowable address for the interface.

Answer: A,D
Explanation:

QUESTION NO: 35

Refer to the exhibit. Which statement is true?

```
SwitchA# show spanning-tree vlan 20

VLAN0020
  Spanning tree enabled protocol rstp
  Root ID     Priority    24596
              Address     0017.596d.2a00
              Cost        38
              Port        11 (FastEthernet0/11)
              Hello Time   2 sec  Max Age 20 sec  Forward Delay 15 sec
  Bridge ID   Priority    28692  (priority 28672 sys-id-ext 20)
              Address     0017.596d.1580
              Hello Time   2 sec  Max Age 20 sec  Forward Delay 15 sec
              Aging Time 300
Interface        Role Sts Cost      Prio.Nbr Type
---------------- ---- --- --------- -------- ---------
Fa0/11           Root FWD 19        128.11   P2p
Fa0/12           Altn BLK 19        128.12   P2p
```

A. The Fa0/11 role confirms that SwitchA is the root bridge for VLAN 20.
B. VLAN 20 is running the Per VLAN Spanning Tree Protocol.

C. The MAC address of the root bridge is 0017.596d.1580.
D. SwitchA is not the root bridge, because not all of the interface roles are designated.

Answer: D
Explanation:

QUESTION NO: 36

Which two of these statements are true of IPv6 address representation? (Choose two.)

A. There are four types of IPv6 addresses: unicast, multicast, anycast, and broadcast.
B. A single interface may be assigned multiple IPv6 addresses of any type.
C. Every IPv6 interface contains at least one loopback address.
D. The first 64 bits represent the dynamically created interface ID.
E. Leading zeros in an IPv6 16 bit hexadecimal field are mandatory.

Answer: B,C
Explanation:

QUESTION NO: 37

What are three basic parameters to configure on a wireless access point? (Choose three.)

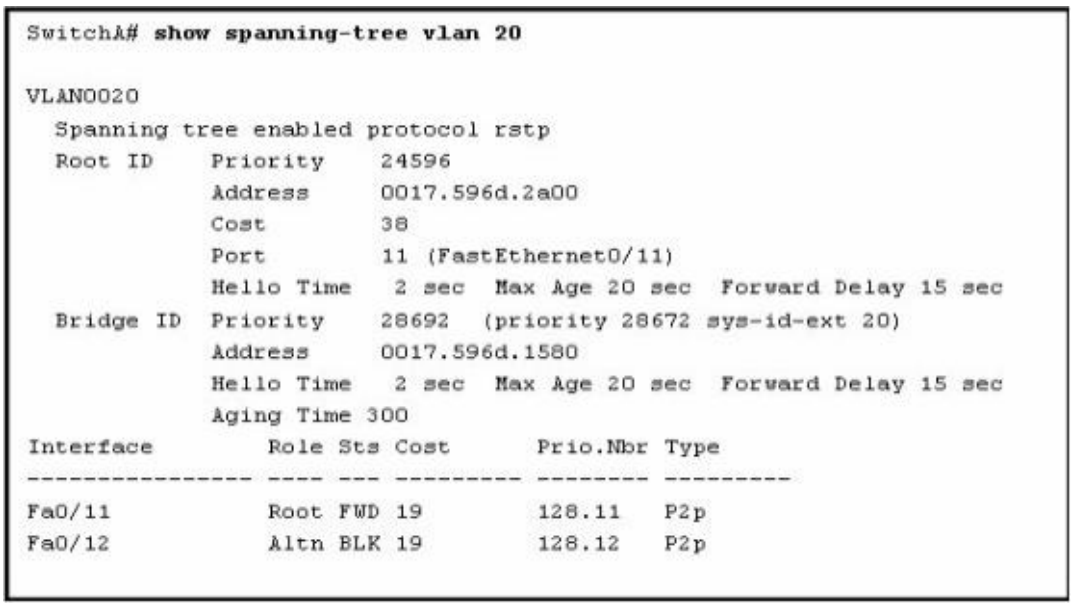
A. SSID
B. RTS/CTS
C. AES-CCMP
D. TKIP/MIC
E. RF channel
F. authentication method

Answer: A,E,F
Explanation:
SSID (Service Set Identifier) can also be written as ESSID, which is used to distinguish different networks. It has 32 characters at most, WLAN cards set up different SSID to enter different networks. SSID is usually broadcast by AP or wireless routers , you can view SSID of the present area through XP built-in scanning feature .Taking security into consideration, SSID can be not broadcast, meanwhile users need to set up SSID manually to enter the appropriate network. Simply speaking, SSID is the name of a local area network, only those computers that set up the same SSID value can communicate with each other.
RF is an acronym for Radio Frequency. It is the electromagnetic frequency that can be radiated to

space, frequency range from 300 KHz to 30GHz.

QUESTION NO: 38

Refer to the exhibit. A system administrator installed a new switch using a script to configure it. IP connectivity was tested using pings to SwitchB. Later attempts to access NewSwitch using Telnet from SwitchA failed. Which statement is true?



```
SwitchA# show spanning-tree vlan 20

VLAN0020
  Spanning tree enabled protocol rstp
  Root ID     Priority    24596
              Address     0017.596d.2a00
              Cost        38
              Port        11 (FastEthernet0/11)
              Hello Time   2 sec  Max Age 20 sec  Forward Delay 15 sec
  Bridge ID   Priority    28692  (priority 28672 sys-id-ext 20)
              Address     0017.596d.1580
              Hello Time   2 sec  Max Age 20 sec  Forward Delay 15 sec
              Aging Time 300
Interface        Role Sts Cost      Prio.Nbr Type
---------------- ---- --- --------- -------- ---------
Fa0/11           Root FWD 19        128.11   P2p
Fa0/12           Altn BLK 19        128.12   P2p
```

A. Executing password recovery is required.
B. The virtual terminal lines are misconfigured.
C. Use Telnet to connect to RouterA and then to NewSwitch to correct the error.
D. Power cycle of NewSwitch will return it to a default configuration.

Answer: C
Explanation:

QUESTION NO: 39

Which two of these statements regarding RSTP are correct? (Choose two.)

A. RSTP cannot operate with PVST+.
B. RSTP defines new port roles.
C. RSTP defines no new port states.
D. RSTP is a proprietary implementation of IEEE 802.1D STP.

E. RSTP is compatible with the original IEEE 802.1D STP.

Answer: B,E

Explanation:

When network topology changes, rapid spanning tree protocol (IEEE802.1W, referred to as RSTP) will speed up significantly the speed to re-calculate spanning tree. RSTP not only defines the role of other ports: alternative port and backup port, but also defines status of 3 ports: discarding status, learning status, forwarding status.

RSTP is 802.1D standard evolution, not revolution. It retains most of the parameters, and makes no changes.

QUESTION NO: 40

Which three of these statements regarding 802.1 Q trunking are correct? (Choose three.)

A. 802.1 Q native VLAN frames are untagged by default.
B. 802.1 Q trunking ports can also be secure ports.
C. 802.1 Q trunks can use 10 Mb/s Ethernet interfaces.
D. 802.1 Q trunks require full-duplex, point-to-point connectivity.
E. 802.1 Q trunks should have native VLANs that are the same at both ends.

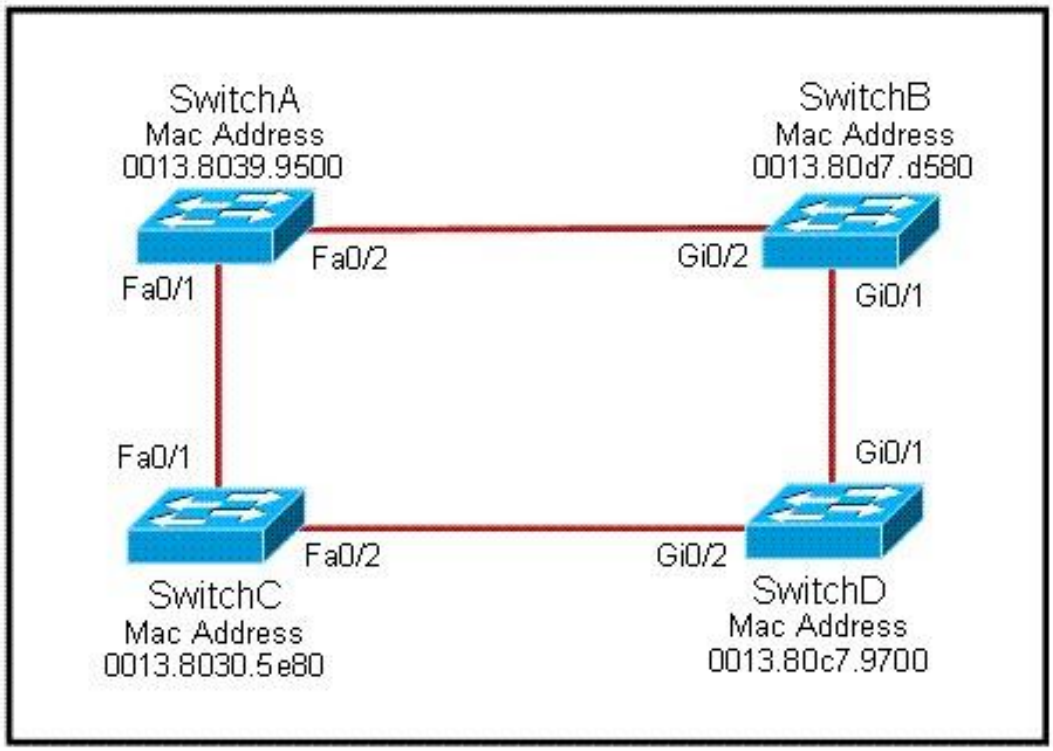
Answer: A,C,E

Explanation:

By default, 802.1Q trunk defined Native VLAN in order to forward unmarked frame. Switches can forward Layer 2 frame from Native VLAN on unmarked trunks port. Receiver switches will transmit all unmarked packets to Native VLAN. Native VLAN is the default VLAN configuration of port. NotE. for the 802.1Q trunk ports between two devices, the same Native VLAN configuration is required on both sides of the link. If the Native VLAN in 802.1Q trunk ports on same trunk link is properly configured, it could lead to layer 2 loops. The 802.1Q trunk link transmits VLAN information through Ethernet.

QUESTION NO: 41

Refer to the exhibit. Each of these four switches has been configured with a hostname, as well as being configured to run RSTP. No other configuration changes have been made. Which three of these show the correct RSTP port roles for the indicated switches and interfaces? (Choose three.)



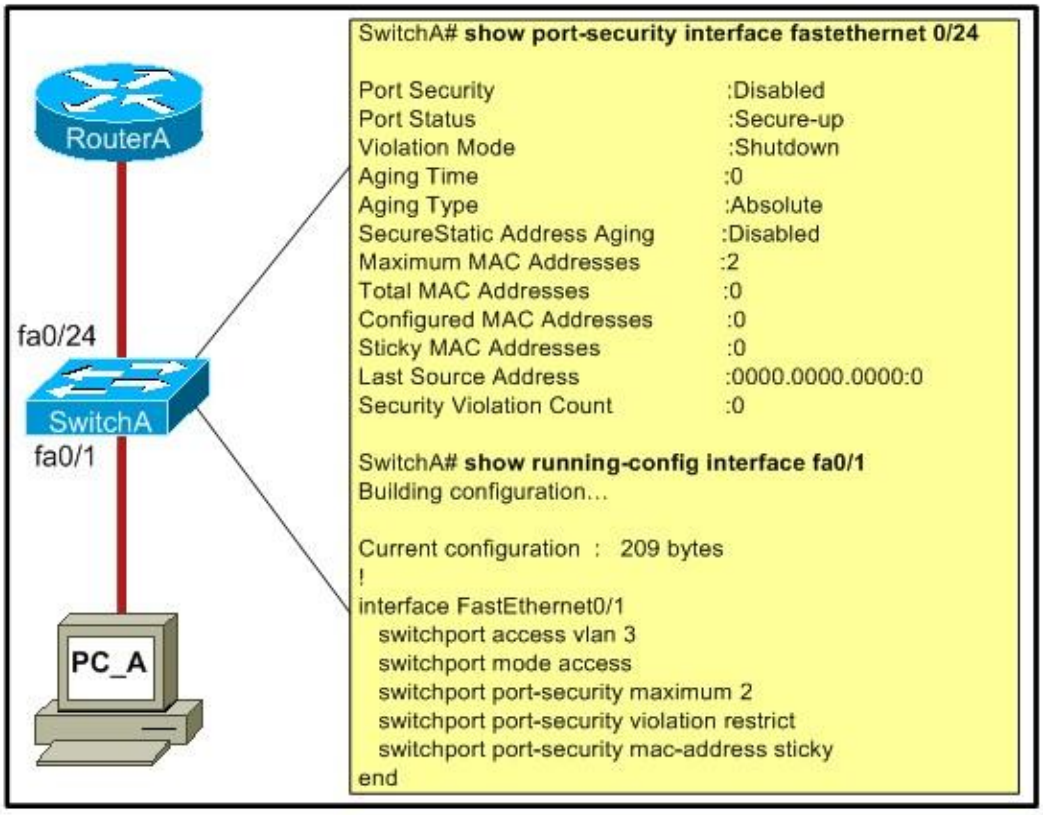
A. SwitchA, Fa0/2, designated
B. SwitchA, Fa0/1, root
C. SwitchB, Gi0/2, root
D. SwitchB, Gi0/1, designated
E. SwitchC, Fa0/2, root
F. SwitchD, Gi0/2, root

Answer: A,B,F

Explanation:

QUESTION NO: 42

Refer to the exhibit. A junior network administrator was given the task of configuring port security on SwitchA to allow only PC_A to access the switched network through port fa0/1. If any other device is detected, the port is to drop frames from this device. The administrator configured the interface and tested it with successful pings from PC_A to RouterA, and then observes the output from these two show commands.



Which two of these changes are necessary for SwitchA to meet the requirements? (Choose two.)

A. Configure port security to shut down the interface in the event of a violation.
B. Port security needs to be enabled on the interface.
C. Enable port security globally.
D. Port security needs to be configured to allow only one learned MAC address.
E. Port security interface counters need to be cleared before using the show command.
F. The port security configuration needs to be saved to NVRAM before it can become active.

Answer: B,D

Explanation:

This question is to examine the layer 2 port security.

According to the exhibit, we know that the port security is configured to restrict the interface in the event of a violation. So A is wrong.

The port security should be enabled on the interface, not globally.

So the correct answers are B and D.

QUESTION NO: 43

Which of the following correctly describe steps in the OSI data encapsulation process? (Choose two)

A. The transport layer divides a data stream into segments and may add reliability and flow control information.
B. The data link layer adds physical source and destination addresses and an FCS to the segment.
C. Packets are created when the network layer encapsulates a frame with source and destination host addresses and protocol-related control information.
D. Packets are created when the network layer adds Layer 3 addresses and control information to a segment.
E. The presentation layer translates bits into voltages for transmission across the physical link.

Answer: A,D

Explanation:

The Application Layer (Layer 7) refers to communications services to applications and is the interface between the network and the application. Examples includE. Telnet, HTTP, FTP, Internet browsers, NFS, SMTP gateways, SNMP, X.400 mail, and FTAM.

The Presentation Layer (Layer 6) defining data formats, such as ASCII text, EBCDIC text, binary, BCD, and JPEG. Encryption also is defined as a presentation layer service. Examples includE. JPEG, ASCII, EBCDIC, TIFF, GIF, PICT, encryption, MPEG, and MIDI.

The Session Layer (Layer 5) defines how to start, control, and end communication sessions. This includes the control and management of multiple bidirectional messages so that the application can be notified if only some of a series of messages are completed. This allows the presentation layer to have a seamless view of an incoming stream of data. The presentation layer can be presented with data if all flows occur in some cases. Examples includE. RPC, SQL, NFS, NetBios names, AppleTalk ASP, and DECnet SCP

The Transport Layer (Layer 4) defines several functions, including the choice of protocols. The most important Layer 4 functions are error recovery and flow control. The transport layer may provide for retransmission, i.e., error recovery, and may use flow control to prevent unnecessary congestion by attempting to send data at a rate that the network can accommodate, or it might not, depending on the choice of protocols. Multiplexing of incoming data for different flows to applications on the same host is also performed. Reordering of the incoming data stream when packets arrive out of order is included. Examples includE. TCP, UDP, and SPX.

The Network Layer (Layer 3) defines end-to-end delivery of packets and defines logical addressing to accomplish this. It also defines how routing works and how routes are learned; and how to fragment a packet into smaller packets to accommodate media with smaller maximum transmission unit sizes. Examples includE. IP, IPX, AppleTalk DDP, and ICMP. Both IP and IPX define logical addressing, routing, the learning of routing information, and end-to-end delivery rules. The IP and IPX protocols most closely match the OSI network layer (Layer 3) and are called Layer 3 protocols because their functions most closely match OSI's Layer 3.

The Data Link Layer (Layer 2) is concerned with getting data across one particular link or medium. The data link protocols define delivery across an individual link. These protocols are necessarily concerned with the type of media in use. Examples includE. IEEE 802.3/802.2, HDLC, Frame Relay, PPP, FDDI, ATM, and IEEE 802.5/802.2.

QUESTION NO: 44

For which type of connection should a straight-through cable be used?

A. switch to switch
B. switch to hub
C. switch to router
D. hub to hub
E. router to PC

Answer: C
Explanation:

QUESTION NO: 45

Which set of commands is recommended to prevent the use of a hub in the access layer?

A. switch(config-if)#switchport mode trunk
switch(config-if)#switchport port-security maximum 1
B. switch(config-if)#switchport mode trunk
switch(config-if)#switchport port-security mac-address 1
C. switch(config-if)#switchport mode access
switch(config-if)#switchport port-security maximum 1
D. switch(config-if)#switchport mode access
switch(config-if)#switchport port-security mac-address 1

Answer: C
Explanation:
This question is to examine the layer 2 security configuration.
In order to satisfy the requirements of this question, you should perform the following configurations in the interface mode:
First, configure the interface mode as the access mode
Second, enable the port security and set the maximum number of connections to 1.

QUESTION NO: 46

By default, each port in a Cisco Catalyst switch is assigned to VLAN1. Which two recommendations are key to avoid unauthorized management access? (Choose two.)

A. Create an additional ACL to block the access to VLAN 1.
B. Move the management VLAN to something other than default.
C. Move all ports to another VLAN and deactivate the default VLAN.
D. Limit the access in the switch using port security configuration.
E. Use static VLAN in trunks and access ports to restrict connections.
F. Shutdown all unused ports in the Catalyst switch.

Answer: B,F

Explanation:

QUESTION NO: 47

Which Cisco Catalyst feature automatically disables the port in an operational PortFast upon receipt of a BPDU?

A. BackboneFast
B. UplinkFast
C. Root Guard
D. BPDU Guard
E. BPDU Filter

Answer: D

Explanation:

QUESTION NO: 48

Which type of cable is used to connect the COM port of a host to the COM port of a router or switch?

A. crossover
B. straight-through

C. rolled
D. shielded twisted-pair

Answer: C
Explanation:

QUESTION NO: 49

What is known as "one-to-nearest" addressing in IPv6?

A. global unicast
B. anycast
C. multicast
D. unspecified address

Answer: B
Explanation:

QUESTION NO: 50

Which option is a valid IPv6 address?

A. 2001:0000:130F::099a::12a
B. 2002:7654:A1AD:61:81AF:CCC1
C. FEC0:ABCD:WXYZ:0067::2A4
D. 2004:1:25A4:886F::1

Answer: D
Explanation:

QUESTION NO: 51

How many bits are contained in each field of an IPv6 address?

A. 24
B. 4
C. 8
D. 16

Answer: D

Explanation:

QUESTION NO: 52

Which layer of the OSI reference model uses the hardware address of a device to ensure message delivery to the proper host on a LAN?

A. physical
B. data link
C. network
D. transport

Answer: B

Explanation:

QUESTION NO: 53

Which layer of the OSI reference model uses flow control, sequencing, and acknowledgments to ensure that reliable networking occurs?

A. data link
B. network
C. transport
D. presentation
E. physical

Answer: C

Explanation:

QUESTION NO: 54

What is the principle reason to use a private IP address on an internal network?

A. Subnet strategy for private companies.
B. Manage and scale the growth of the internal network.
C. Conserve public IP addresses so that we do not run out of them.
D. Allow access reserved to the devices.

Answer: C

Explanation:

This question is to examine the concept of the private IP address.

Class A. 10.0.0.0 --10.255.255.255

Class B. 172.16.0.0--172.31.255.255

Class C. 192.168.0.0--192.168.255.255

The three classes of addresses shown above cannot be used on the Internet, they can only be used for the interior LAN addressing scheme. Because of the practical exhaustion of the IPv4 address space, private IP addresses are generated to save the address resources.

The correct answer is C.

QUESTION NO: 55

Which IP address can be assigned to an Internet interface?

A. 10.180.48.224
B. 9.255.255.10
C. 192.168.20.223
D. 172.16.200.18

Answer: B

Explanation:

QUESTION NO: 56

What will happen if a private IP address is assigned to a public interface connected to an ISP?

A. Addresses in a private range will be not routed on the Internet backbone.
B. Only the ISP router will have the capability to access the public network.
C. The NAT process will be used to translate this address in a valid IP address.
D. Several automated methods will be necessary on the private network.
E. A conflict of IP addresses happens, because other public routers can use the same range.

Answer: A

Explanation:

QUESTION NO: 57

When is it necessary to use a public IP address on a routing interface?

A. Connect a router on a local network.
B. Connect a router to another router.
C. Allow distribution of routes between networks.
D. Translate a private IP address.
E. Connect a network to the Internet.

Answer: E

Explanation:

QUESTION NO: 58

What is the first 24 bits in a MAC address called?

A. NIC
B. BIA
C. oui
D. vai

Answer: C

Explanation:

This question is to examine the MAC address structure.

The MAC address is expressed as a 48-bit hexadecimal number. The first 24-bit number is to identify the vendor/manufacturer, also called OUI. The latter 24-bit is assigned by the vendor.

QUESTION NO: 59

In an Ethernet network, under what two scenarios can devices transmit? (Choose two.)

A. when they receive a special token
B. when there is a carrier
C. when they detect no other devices are sending
D. when the medium is idle
E. when the server grants access

Answer: C,D

Explanation:

QUESTION NO: 60

Which term describes the process of encapsulating IPv6 packets inside IPv4 packets?

A. tunneling
B. hashing
C. routing
D. NAT

Answer: A

Explanation:

This question is to examine the IPv6 application.

There are three IPv6 transition mechanisms:

1. Dual stack
2. 6to4 Tunneling
3. NAT-PT

This question describes the 6to4 Tunneling.

QUESTION NO: 61

Which statement about RIPng is true?

A. RIPng uses broadcasts to exchange routes.
B. RIPng is enabled on each interface separately.
C. There can be only one RIPng process per router.
D. RIPng allows for routes with up to 30 hops.

Answer: B

Explanation:

QUESTION NO: 62

Which statement about IPv6 is true?

A. Addresses are not hierarchical and are assigned at random.
B. Only one IPv6 address can exist on a given interface.
C. There are 2.7 billion addresses available.
D. Broadcasts have been eliminated and replaced with multicasts.

Answer: D

Explanation:

This question is to check the concept of IPv6.

IPv4 supports three address types: unicast, multicast and broadcast.

In IPv6, broadcasts have been eliminated and replaced with multicasts. At the same time, IPv6 introduces another address type - anycast.

QUESTION NO: 63

Which line from the output of the show ip interface command indicates a layer 1 problem?

A. Serial0/1 is up, line protocol is down
B. Serial0/1 is down, line protocol is down
C. Serial0/1 is up, line protocol is up
D. Serial0/1 is administratively down, line protocol is down

Answer: B

Explanation:

QUESTION NO: 64

A network admin wants to know every hop the packets take when he accesses cisco.com. Which command is the most appropriate to use?

A. path cisco.com
B. debug cisco.com
C. trace cisco.com
D. traceroute cisco.com

Answer: D

Explanation:

QUESTION NO: 65

QoS policies are applied on the switches of a LAN. Which type of command will show the effects of the policy in real time?

A. show command
B. debug command
C. configuration command
D. rommon command

Answer: B

Explanation:

QUESTION NO: 66

Which command will show the MAC addresses of stations connected to switch ports?

A. show mac-address
B. show arp
C. show table
D. show switchport

Answer: A

Explanation:

QUESTION NO: 67

What is the name of the VTP mode of operation that enables a switch to forward only VTP advertisements while still permitting the editing of local VLAN information?

A. server
B. client
C. tunnel
D. transparent

Answer: D

Explanation:

QUESTION NO: 68

Which port state is introduced by Rapid-PVST?

A. learning
B. listening
C. discarding
D. forwarding

Answer: C
Explanation:

QUESTION NO: 69

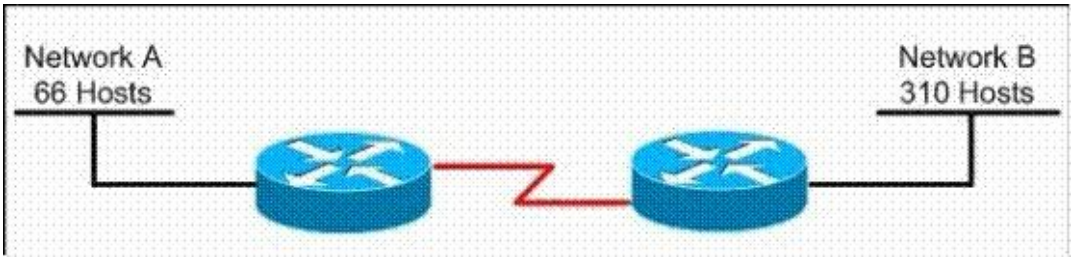
What speeds must be disabled in a mixed 802.11b/g WLAN to allow only 802.11g clients to connect?

A. 6, 9, 12, 18
B. 1, 2, 5.5, 6
C. 5.5, 6, 9, 11
D. 1, 2, 5.5, 11

Answer: D
Explanation:

QUESTION NO: 70

Refer to the exhibit. Which VLSM mask will allow for the appropriate number of host addresses for Network A?



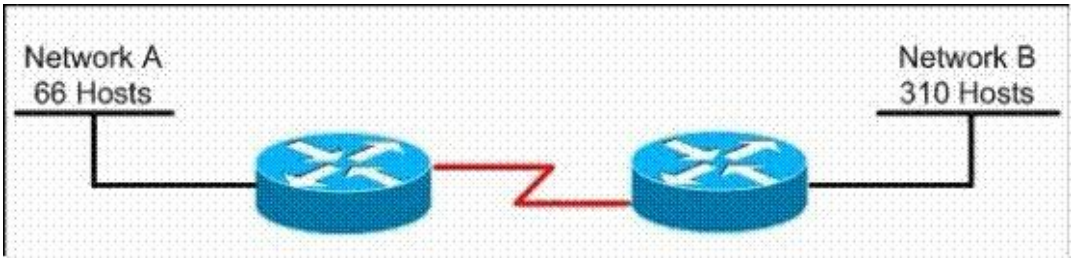
A. /25
B. /26

C. /27
D. /28

Answer: A
Explanation:

QUESTION NO: 71

Refer to the exhibit. Which subnet mask will place all hosts on Network B in the same subnet with the least amount of wasted addresses?



A. 255.255.255.0
B. 255.255.254.0
C. 255.255.252.0
D. 255.255.248.0

Answer: B
Explanation:

QUESTION NO: 72

A new hardware item is using an IEEE 802.11b a wireless LAN. What is the maximum data rate specified for this WLAN?

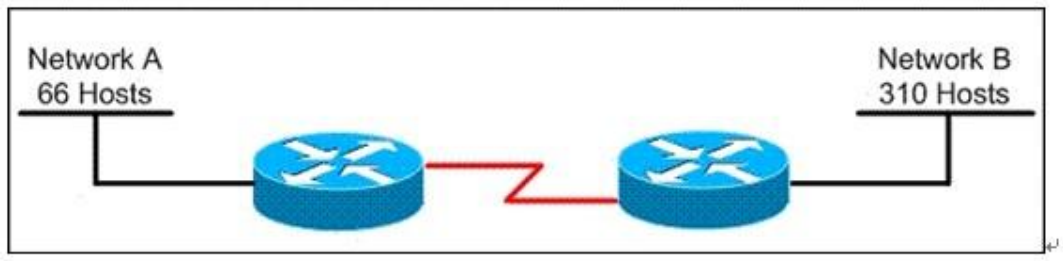
A. 10 mbps
B. 11 Mbps
C. 1000 Mbps
D. 16 Mbps
E. 100 Mbps

Answer: B
Explanation:

The maximum speed for 802.11b is 11 Mbps.

QUESTION NO: 73

Refer to the exhibit. Which mask is correct to use for the WAN link between the routers that will provide connectivity while wasting the least amount of addresses?



A. /23
B. /24
C. /25
D. /30

Answer: D

Explanation:

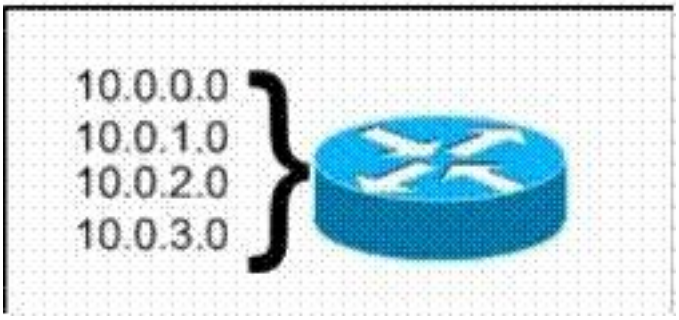
This question is to examine the IP addressing scheme.

In the serial port network, only two IP addresses can be assigned. In order to save IP addresses, we often use the /30 subnet mask.

So the correct answer is D.

QUESTION NO: 74

Refer to the exhibit. What is the most appropriate summarization for these routes?



A. 10.0.0.0 /21
B. 10.0.0.0 /22
C. 10.0.0.0 /23
D. 10.0.0.0 /24

Answer: B
Explanation:

QUESTION NO: 75

Which two tasks does the Dynamic Host Configuration Protocol perform? (Choose two.)

A. Set the IP gateway to be used by the network
B. Perform host discovery used DHCPDISCOVER message
C. Configure IP address parameters from DHCP server to a host
D. Provide an easy management of layer 3 devices
E. Monitor IP performance using the DHCP server
F. Assign and renew IP address from the default pool

Answer: C,F
Explanation:

QUESTION NO: 76

Which two benefits are provided by using a hierarchical addressing network addressing scheme? (Choose two.)

A. reduces routing table entries
B. auto-negotiation of media rates
C. efficient utilization of MAC addresses
D. dedicated communications between devices
E. ease of management and troubleshooting

Answer: A,E
Explanation:

QUESTION NO: 77

Which two benefits are provided by creating VLANs? (Choose two.)

A. added security
B. dedicated bandwidth
C. provides segmentation
D. allows switches to route traffic between subinterfaces
E. contains collisions

Answer: A,C

Explanation:

QUESTION NO: 78

Which two link protocols are used to carry multiple VLANs over a single link? (Choose two.)

A. VTP
B. 802.1 q
C. IGP
D. isl
E. 802.3u

Answer: B,D

Explanation:

This question is to check the trunking protocol.
IGP is an interior gateway protocol and also a routing protocol, such as OSPF and EIGRP.
802.1q and ISL are trunking protocols which can be used to carry the traffic of multiple VLANs over a single link. ISL is a Cisco proprietary protocol.
802.3u (100Base-T) is 100 Mbps Ethernet standard.

QUESTION NO: 79

Which two protocols are used by bridges and/or switches to prevent loops in a layer 2 network? (Choose two.)

A. 802.1d
B. VTP
C. 802.1q
D. STP
E. SAP

Answer: A,D

Explanation:

This question is to examine the STP protocol.

STP (802.1d) is used to prevent Layer 2 loops.

802.1q is a Frame Relay protocol which belongs to VLAN.

SAP is a concept of the OSI model.

So the correct answers are A and D.

QUESTION NO: 80

On the network 131.1.123.0/27, what is the last IP address that can be assigned to a host?

A. 131.1.123.30
B. 131.1.123.31
C. 131.1.123.32
D. 131.1.123.33

Answer: A

Explanation:

QUESTION NO: 81

The ip subnet zero command is not configured on a router. What would be the IP address of Ethernet 0/0 using the first available address from the sixth subnet of the network 192.168.8.0/29?

A. 192.168.8.25
B. 192.168.8.41
C. 192.168.8.49
D. 192.168.8.113

Answer: C

Explanation:

QUESTION NO: 82

For the network 192.0.2.0/23, which option is a valid IP address that can be assigned to a host?

A. 192.0.2.0
B. 192.0.2.255
C. 192.0.3.255
D. 192.0.4.0

Answer: B
Explanation:

QUESTION NO: 83

How many addresses for hosts will the network 124.12.4.0/22 provide?

A. 510
B. 1022
C. 1024
D. 2048

Answer: B
Explanation:

QUESTION NO: 84

Where does routing occur within the DoD TCP/IP reference model?

A. application
B. internet
C. network
D. transport

Answer: B
Explanation:
This question is to examine the TCP/IP model.
TCP/IP model has four layers: Process/Application layer, Host-to-Host layer, Internet layer, Network Access layer.
Routing occurs at the Internet layer.

QUESTION NO: 85

Which VTP mode is capable of creating only local VLANs and does not synchronize with other switches in the VTP domain?

A. client
B. dynamic
C. server
D. static
E. transparent

Answer: E

Explanation:

QUESTION NO: 86

Which switch would STP choose to become the root bridge in the selection process?

A. 32768: 11-22-33-44-55-66
B. 32768: 22-33-44-55-66-77
C. 32769:11-22-33-44-55-65
D. 32769: 22-33-44-55-66-78

Answer: A

Explanation:

QUESTION NO: 87

A switch is configured with all ports assigned to VLAN 2. In addition, all ports are configured as full-duplex FastEthernet. What is the effect of adding switch ports to a new VLAN on this switch?

A. The additions will create more collisions domains.
B. An additional broadcast domain will be created.
C. More bandwidth will be required than was needed previously.
D. IP address utilization will be more efficient.

Answer: B

Explanation:

A VLAN is a group of hosts with a common set of requirements that communicate as if they were attached to the same wire, regardless of their physical location. A VLAN has the same attributes as a physical LAN, but it allows for end stations to be grouped together even if they are not located on the same LAN segment.

Networks that use the campus-wide or end-to-end VLANs logically segment a switched network based on the functions of an organization, project teams, or applications rather than on a physical or geographical basis. For example, all workstations and servers used by a particular workgroup can be connected to the same VLAN, regardless of their physical network connections or interaction with other workgroups. Network reconfiguration can be done through software instead of physically relocating devices.
Cisco recommends the use of local or geographic VLANs that segment the network based on IP subnets. Each wiring closet switch is on its own VLAN or subnet and traffic between each switch is routed by the router. The reasons for the Distribution Layer 3 switch and examples of a larger network using both the campus-wide and local VLAN models will be discussed later.
A VLAN can be thought of as a broadcast domain that exists within a defined set of switches. Ports on a switch can be grouped into VLANs in order to limit unicast, multicast, and broadcast traffic flooding. Flooded traffic originating from a particular VLAN is only flooded out ports belonging to that VLAN, including trunk ports, so a switch that connects to another switch will normally introduce an additional broadcast domain.

VLAN (Virtual Local Area Network) technology is to solve the problem that switches can't limit broadcast within the LAN interconnection. This technology can divide a LAN into more logical LAN- VLAN, each VLAN is a broadcast domain, the communication between the hosts within a VLAN is like that of the hosts in a LAN, while the communication can't be achieved between VLANs directly. Thus the broadcast datagram is limited within a LAN. So, creating a new VLAN on switch is the same as adding a new broadcast domain.

QUESTION NO: 88

VLAN is a most useful technology, which is often used in different network environments. It is important for you to have a real understanding of the changes brought by VLAN. Refer to the following statements about VLAN, which two are correct?

A. VLANs increase the size of collision domains.
B. VLANs allow logical grouping of users by function.
C. VLANs simplify switch administration.
D. VLANs enhance network security.

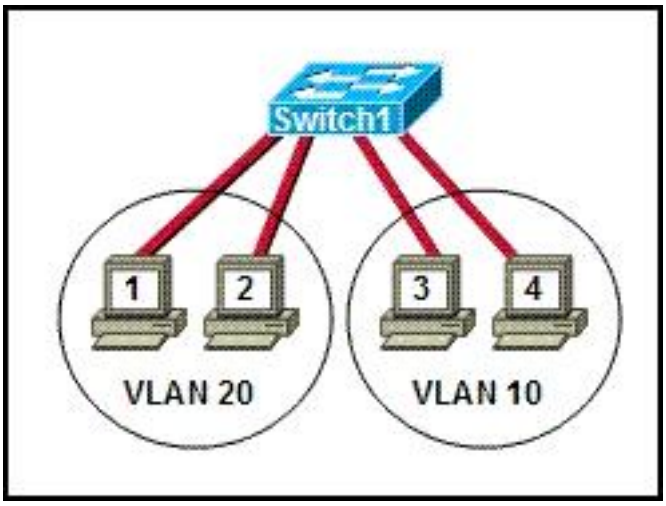
Answer: B,D

Explanation:
Refer to the divided VLANs. The number of collision domains does not change because each switch port is a collision domain. So A is wrong.
VLANs do not simplify switch administration. On the contrary, many configurations are required.

VTP can simplify theses configurations. C is wrong.
VLANs allow logical grouping of users by function. Communication cannot be achieved between VLANs without the layer 3 device, which restricts the mutual access and improves the network security.

QUESTION NO: 89

Refer to the exhibit. Hosts on the same VLAN can communicate with each other but are unable to communicate with hosts on different VLANs. What is needed to allow communication between VLANs?



A. a router with an IP address on the physical interface that is connected to the switch
B. a router with subinterfaces configured on the physical interface that is connected to the switch
C. a switch with an access link that is configured between the switches
D. a switch with a trunk link that is configured between the switches

Answer: B
Explanation:
Different VLANs can't communicate with each other , they can communicate with the help of Layer3 router. Hence ,it is needed to connect a router to a switch , then make the sub-interface on the router to connect to the switch, establishing Trunking links to achieve communications of devices which belong to different VLANs.

When using VLANs in networks that have multiple interconnected switches, you need to use VLAN trunking between the switches. With VLAN trunking, the switches tag each frame sent between switches so that the receiving switch knows to what VLAN the frame belongs. End user devices connect to switch ports that provide simple connectivity to a single VLAN each. The attached devices are unaware of any VLAN structure.

By default, only hosts that are members of the same VLAN can communicate. To change this and allow inter-VLAN communication, you need a router or a layer 3 switch.

Here is the example of configuring the router for inter-vlan communication
RouterA(config)#int f0/0.1
RouterA(config-subif)#encapsulation ?
dot1Q IEEE 802.1Q Virtual LAN
RouterA(config-subif)#encapsulation dot1Q or isl VLAN ID
RouterA(config-subif)# ip address x.x.x.x y.y.y.y

QUESTION NO: 90

When a DHCP server is configured, which two IP addresses should never be assignable to hosts? (Choose two.)

A. network or subnetwork IP address
B. broadcast address on the network
C. IP address leased to the LAN
D. IP address used by the interfaces
E. manually assigned address to the clients
F. designated IP address to the DHCP server

Answer: A,B
Explanation:

QUESTION NO: 91

How does a DHCP server dynamically assign IP addresses to hosts?

A. Addresses are allocated after a negotiation between the server and the host to determine the length of the agreement.
B. Addresses are permanently assigned so that the hosts uses the same address at all times.
C. Addresses are assigned for a fixed period of time, at the end of the period, a new request for an address must be made.
D. Addresses are leased to hosts. A host will usually keep the same address by periodically contacting the DHCP server to renew the lease.

Answer: D

Explanation:

QUESTION NO: 92

Which network protocol does DNS use?

A. FTP
B. TFTP
C. TCP
D. udp
E. scp

Answer: D
Explanation:

QUESTION NO: 93

When two hosts are trying to communicate across a network, how does the host originating the communication determine the hardware address of the host that it wants to "talk" to?

A. RARP request
B. Show Network Address request
C. Proxy ARP request
D. ARP request
E. Show Hardware Address request

Answer: D
Explanation:

QUESTION NO: 94

During the data transmission between hosts over a network, which process does the data experience?

A. standardization
B. conversion
C. encapsulation
D. synchronization

Answer: C

Explanation:

This question is to examine the OSI model.

Two hosts are communicating through Internet. The communication process includes encapsulation and de-encapsulation.

From down to top, de-encapsulation is required.

From top to down, encapsulation is required.

So the correct answer is C.

QUESTION NO: 95

An administrator attempts a traceroute but receives a "Destination Unreadable" message. Which protocol is responsible for that message?

A. RARP
B. RUDP
C. ICMP
D. SNMP

Answer: C

Explanation:

This question is to examine the command ping.

The ping command is often used to check the network connectivity.

Ping sends an ICMP echo request to the destination and tells whether a corresponding ICMP echo reply message is received or not.

QUESTION NO: 96

When you are logged into a switch, which prompt indicates that you are in privileged mode?

A. %
B. @
C. >
D. $
E. #

Answer: E

Explanation:

QUESTION NO: 97

Which command shows system hardware and software version information?

A. show configuration
B. show environment
C. show inventory
D. show platform
E. show version

Answer: E
Explanation:
This question is to examine the show version command.
By using the show version command, you can display information such as Cisco IOS software version, hardware platform, flash and memory size.
So the correct answer is E.

QUESTION NO: 98

Cisco Catalyst switches CAT1 and CAT2 have a connection between them using ports FA0/13. An 802.1Q trunk is configured between the two switches. On CAT1, VLAN 10 is chosen as native, but on CAT2 the native VLAN is not specified.

What will happen in this scenario?

A. 802.1 Q giants frames could saturate the link.
B. VLAN 10 on CAT1 and VLAN 1 on CAT2 will send untagged frames.
C. A native VLAN mismatch error message will appear.
D. VLAN 10 on CAT1 and VLAN 1 on CAT2 will send tagged frames.

Answer: C
Explanation:

QUESTION NO: 99

Which command would correctly configure a serial port on a router with the last usable host address in the 192.216.32.32/29 subnet?

A. router (config-if)# ip address 192.216.32.38 255.255.255.240
B. router (config-if)# ip address 192.216.32.39 255.255.255.224
C. router (config-if)# ip address 192.216.32.63 255.255.255.248
D. router (config-if)# ip address 192.216.32.39 255.255.255.248
E. router (config-if)# ip address 192.216.32.63 255.255.255.248
F. router (config-if)# ip address 192.216.32.38 255.255.255.248

Answer: F

Explanation:

This question is to examine the IP addressing.

In the 192.216.32.32/29 subnet, the network number is 192.216.32.32.

The first usable IP address is 192.216.32.33.

The last usable IP address is 192.216.32.38.

192.216.32.39 is the broadcast address, /29 represents 255.255.255.248.

QUESTION NO: 100

The network default gateway applying to a host by DHCP is 192.168.5.33/28. Which option is the valid IP address of this host?

A. 192.168.5.55
B. 192.168.5.47
C. 192.168.5.40
D. 192.168.5.32
E. 192.168.5.14

Answer: C

Explanation:

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QUESTION NO: 101

Which two addresses can be assigned to a host with a subnet mask of 255.255.254.0? (Choose

two.)

A. 113.10.4.0
B. 186.54.3.0
C. 175.33.3.255
D. 26.35.2.255
E. 17.35.36.0

Answer: B,D

Explanation:

QUESTION NO: 102

The network administrator has asked you to check the status of the workstation's IP stack by pinging the loopback address. Which address would you ping to perform this task?

A. 10.1.1.1
B. 127.0.0.1
C. 192.168.0.1
D. 239.1.1.1

Answer: B

Explanation:

QUESTION NO: 103

Workstation A has been assigned an IP address of 192.0.2.24/28. Workstation B has been assigned an IP address of 192.0.2.100/28. The two workstations are connected with a straight-through cable. Attempts to ping between the hosts are unsuccessful. What are two things that could be attempted that would allow communications between the hosts? (Choose two.)

A. Replace the straight-through cable with a crossover cable.
B. Change the subnet mask of the hosts to /25.
C. Change the subnet mask of the hosts to /26.
D. Change the address of Workstation A to 192.0.2.15.
E. Change the address of Workstation B to 192.0.2.111.

Answer: A,B

Explanation:

QUESTION NO: 104

Your ISP has given you the address 223.5.14.6/29 to assign to your router's interface. They have also given you the default gateway address of 223.5.14.7. After you have configured the address, the router is unable to ping any remote devices. What is preventing the router from pinging remote devices?

A. The default gateway is not an address on this subnet.
B. The default gateway is the broadcast address for this subnet.
C. The IP address is the broadcast address for this subnet.
D. The IP address is an invalid class D multicast address.

Answer: B

Explanation:

QUESTION NO: 105

Which command is used to copy the configuration from RAM into NVRAM?

A. copy running-config startup-config
B. copy startup config running config
C. copy startup-config running-config
D. copy running config startup config
E. write terminal

Answer: A

Explanation:

QUESTION NO: 106

Which command is used to load a configuration from a TFTP server and merge the configuration into RAM?

A. copy running-config: TFTP:
B. copy TFTP: running-config
C. copy TFTP: startup-config
D. copy startup-config: TFTP:

Answer: B

Explanation:

QUESTION NO: 107

A system administrator types the command to change the hostname of a router. Where on the Cisco IFS is that change stored?

A. NVRAM
B. RAM
C. FLASH
D. ROM
E. PCMCIA

Answer: B

Explanation:

QUESTION NO: 108

Which command is used to configure a default route?

A. ip route 172.16.1.0 255.255.255.0 0.0.0.0
B. ip route 172.16.1.0 255.255.255.0 172.16.2.1
C. ip route 0.0.0.0 255.255.255.0 172.16.2.1
D. ip route 0.0.0.0 0.0.0.0 172.16.2.1

Answer: D

Explanation:

QUESTION NO: 109

If IP routing is enabled, which two commands set the gateway of last resort to the default gateway? (Choose two.)

A. ip default-gateway 0.0.0.0
B. ip route 172.16.2.1 0.0.0.0 0.0.0.0
C. ip default-network 0.0.0.0

D. ip default-route 0.0.0.0 0.0.0.0 172.16.2.1
E. ip route 0.0.0.0 0.0.0.0 172.16.2.1

Answer: C,E

Explanation:

QUESTION NO: 110

Which command can enable CDP globally on the router and show the information about directly connected Cisco devices?

A. enable cdp
B. cdp enable
C. cdp run
D. run cdp

Answer: C

Explanation:

This question is to examine the CDP protocol configuration.
Cisco Discovery Protocol (CDP) is primarily used to obtain protocol addresses of neighboring devices and discover the platform of those devices.
The cdp run command is used to enable CDP globally on the router.
To enable CDP on an interface, use the cdp enable command.
The correct answer is C.

QUESTION NO: 111

Which command is used to see the path taken by packets across an IP network?

A. show ip route
B. show route
C. trace route
D. trace ip route

Answer: C

Explanation:

This question is to examine the trace route command.
When checking the network connectivity, we often use the ping command or the trace route command. And the trace route command can also trace the network path of Internet routers that

packets take as they are forwarded from your computer to a destination address.

The correct answer is C.

QUESTION NO: 112

Which command is used to debug a ping command?

A. debug icmp
B. debug ip icmp
C. debug tcp
D. debug packet

Answer: B

Explanation:

QUESTION NO: 113

Which command displays CPU utilization?

A. show protocols
B. show process
C. show system
D. show version

Answer: B

Explanation:

QUESTION NO: 114

When configuring a serial interface on a router, what is the default encapsulation?

A. atm-dxi
B. frame-relay
C. hdlc
D. lapb
E. ppp

Answer: C

Explanation:

This question is to examine the data link layer protocols.

LAPB. Link Access Procedure Balanced for x.25

PPP: Point-to-Point Protocol

HDLC. High-Level Data Link Control

Frame-relay and the three protocols above are data link layer protocols. HDLC is the default serial encapsulation protocol.

The correct answer is C.

QUESTION NO: 115

What must be set correctly when configuring a serial interface so that higher-level protocols calculate the best route?

A. bandwidth
B. delay
C. load
D. reliability

Answer: A

Explanation:

QUESTION NO: 116

A company implements video conferencing over IP on their Ethernet LAN. The users notice that the network slows down, and the video either stutters or fails completely. What is the most likely reason for this?

A. minimum cell rate (MCR)
B. quality of service (QoS)
C. modulation
D. packet switching exchange (PSE)
E. reliable transport protocol (RTP)

Answer: B

Explanation:

This question is to examine QoS.

Quality of Service is a network security mechanism, which is used to resolve the network delay problem. This mechanism is essential to multimedia application. When the network is overloaded, QoS will prevent a possible delay in the important data transmission and ensure the efficient operation of the network.
The correct answer is B.

QUESTION NO: 117

Which layer in the OSI reference model is responsible for determining the availability of the receiving program and checking to see if enough resources exist for that communication?

A. transport
B. network
C. presentation
D. session
E. application

Answer: E

Explanation:
This question is to examine the OSI reference model.
The Application layer is responsible for identifying and establishing the availability of the intended communication partner and determining whether sufficient resources for the intended communication exist.
The correct answer is E.

QUESTION NO: 118

Data transfer is slow between the source and destination. The quality of service requested by the transport layer in the OSI reference model is not being maintained. To fix this issue, at which layer should the troubleshooting process begin?

A. presentation
B. session
C. transport
D. network
E. physical

Answer: D

Explanation:

QUESTION NO: 119

Which protocols are found in the network layer of the OSI reference model and are responsible for path determination and traffic switching?

A. LAN
B. routing
C. WAN
D. network

Answer: B

Explanation:

QUESTION NO: 120

Which command reveals the last method used to powercycle a router?

A. show reload
B. show boot
C. show running-config
D. show version

Answer: D

Explanation:

QUESTION NO: 121

Which three options are valid WAN connectivity methods? (Choose three.)

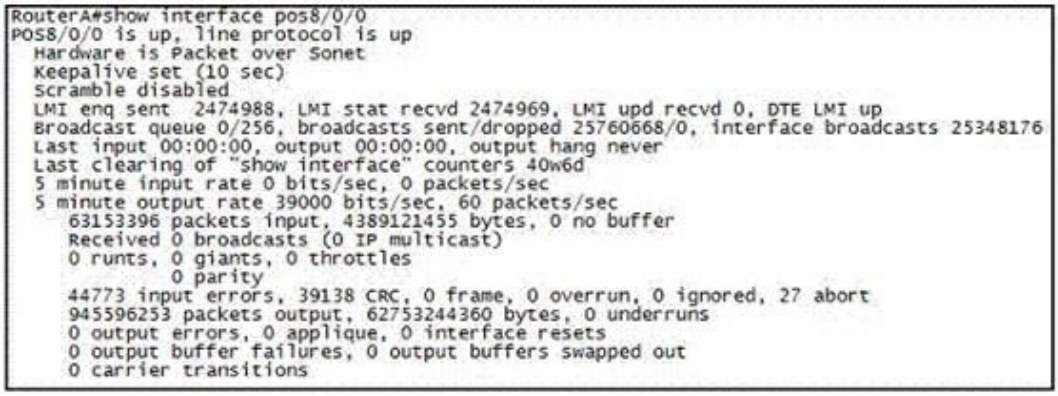
A. PPP
B. wap
C. HDLC
D. MPLS
E. L2TPv3
F. ATM

Answer: A,C,F

Explanation:

QUESTION NO: 122

Refer to the exhibit. Which WAN protocol is being used?



A. ATM
B. HDLC
C. Frame Relay
D. ppp

Answer: C

Explanation:

This question is to examine the show int command.

According to the information provided in the exhibit, we can know that the data link protocol used in this network is the Frame Relay protocol.

“LMI enq sent…”

So the correct answer is C.

QUESTION NO: 123

What is the difference between a CSU/DSU and a modem?

A. A CSU/DSU converts analog signals from a router to a leased line; a modem converts analog signals from a router to a leased line.
B. A CSU/DSU converts analog signals from a router to a phone line; a modem converts digital

signals from a router to a leased line.
C. A CSU/DSU converts digital signals from a router to a phone line; a modem converts analog signals from a router to a phone line.
D. A CSU/DSU converts digital signals from a router to a leased line; a modem converts digital signals from a router to a phone line.

Answer: D

Explanation:

QUESTION NO: 124

A network administrator must configure 200 switch ports to accept traffic from only the currently attached host devices. What would be the most efficient way to configure MAC-level security on all these ports?

A. Visually verify the MAC addresses and then telnet to the switches to enter the switchport-port security mac-address command.
B. Have end users e-mail their MAC addresses. Telnet to the switch to enter the switchport-port security mac-address command.
C. Use the switchport port-security MAC address sticky command on all the switch ports that have end devices connected to them.
D. Use show mac-address-table to determine the addresses that are associated with each port and then enter the commands on each switch for MAC address port-security.

Answer: C

Explanation:

QUESTION NO: 125

When troubleshooting a Frame Relay connection, what is the first step when performing a loopback test?

A. Set the encapsulation of the interface to HDLC.
B. Place the CSU/DSU in local-loop mode.
C. Enable local-loop mode on the DCE Frame Relay router.
D. Verify that the encapsulation is set to Frame Relay.

Answer: A

Explanation:

QUESTION NO: 126

What occurs on a Frame Relay network when the CIR is exceeded?

A. All TCP traffic is marked discard eligible.
B. All UDP traffic is marked discard eligible and a BECN is sent.
C. All TCP traffic is marked discard eligible and a BECN is sent.
D. All traffic exceeding the CIR is marked discard eligible.

Answer: D
Explanation:

QUESTION NO: 127

What are two characteristics of Frame Relay point-to-point subinterfaces? (Choose two.)

A. They create split-horizon issues.
B. They require a unique subnet within a routing domain.
C. They emulate leased lines.
D. They are ideal for full-mesh topologies.
E. They require the use of NBMA options when using OSPF.

Answer: B,C
Explanation:

QUESTION NO: 128

Refer to the exhibit. Addresses within the range 10.10.10.0/24 are not being translated to the 1.1.128.0/16 range. Which command shows if 10.10.10.0/24 are allowed inside addresses?

```
RouterA# show running-config
!
ip nat pool inside_green 1.1.128.1 1.1.255.254
ip nat inside source list 101 pool inside_green
!
```

A. debug ip nat

B. show access-list
C. show ip nat translation
D. show ip nat statistics

Answer: B
Explanation:

QUESTION NO: 129

A wireless client cannot connect to an 802.11b/g BSS with a b/g wireless card. The client section of the access point does not list any active WLAN clients. What is a possible reason for this?

A. The incorrect channel is configured on the client.
B. The client's IP address is on the wrong subnet.
C. The client has an incorrect pre-shared key.
D. The SSID is configured incorrectly on the client.

Answer: D
Explanation:
SSID is used to differentiate networks from one another, which has a maximum length of 32 characters.
Wireless network card configured with different SSIDs can access different networks. AP is often used to broadcast SSID. SSID discovery is done by active scanning. SSID will not be broadcasted for security reasons. Then users need to manually configure the SSID to access the network.
If a client cannot find the efficient network although the wireless card is working normally, the most likely cause is that SSID is configured incorrectly.

QUESTION NO: 130

Which two features did WPAv1 add to address the inherent weaknesses found in WEP? (Choose two.)

A. a stronger encryption algorithm
B. key mixing using temporal keys
C. shared key authentication
D. a shorter initialization vector
E. per frame sequence counters

Answer: B,E

Explanation:

This question is to examine the differences between WPAv1 and WEP.

QUESTION NO: 131

Which two wireless encryption methods are based on the RC4 encryption algorithm? (Choose two.)

A. WEP
B. CCKM
C. AES
D. TKIP
E. ccmp

Answer: A,D

Explanation:

QUESTION NO: 132

What are two characteristics of RIPv2? (Choose two.)

A. classful routing protocol
B. variable-length subnet masks
C. broadcast addressing
D. manual route summarization
E. uses SPF algorithm to compute path

Answer: B,D

Explanation:

RIPV2 supports VLSM networks. RIPV1 does not support VLSM.

RIPV2 supports manual route summarization

Incorrect answer:

Classful routing protocol: The original specification of RIP (RIP V1), uses classful routing.

RIPv2 included the ability to carry subnet information, thus supportingClassless Inter-Domain Routing (CIDR).

The main difference between RIPv1 and RIPv2 is classless routing. RIPv2 incorporates the addition of the network mask in the update to allow classless routing advertisements.

QUESTION NO: 133

Which two Ethernet fiber-optic modes support distances of greater than 550 meters?

A. 1000BASE-CX
B. 100BASE-FX
C. 1000BASE-LX
D. 1000BASE-SX
E. 1000BASE-ZX

Answer: C,E

Explanation:

QUESTION NO: 134

What two things will a router do when running a distance vector routing protocol? (Choose two.)

A. Send periodic updates regardless of topology changes.
B. Send entire routing table to all routers in the routing domain.
C. Use the shortest-path algorithm to the determine best path.
D. Update the routing table based on updates from their neighbors.
E. Maintain the topology of the entire network in its database.

Answer: A,D

Explanation:

QUESTION NO: 135

Refer to the exhibit. According to the routing table, where will the router send a packet destined for 10.1.5.65?

Network	Interface	Next-hop
10.1.1.0/24	e0	directly connected
10.1.2.0/24	e1	directly connected
10.1.3.0/25	s0	directly connected
10.1.4.0/24	s1	directly connected
10.1.5.0/24	e0	10.1.1.2
10.1.5.64/28	e1	10.1.2.2
10.1.5.64/29	s0	10.1.3.3
10.1.5.64/27	s1	10.1.4.4

A. 10.1.1.2
B. 10.1.2.2
C. 10.1.3.3
D. 10.1.4.4

Answer: C
Explanation:

QUESTION NO: 136

Which command shows if an access list is assigned to an interface?

A. show ip interface [interface] access-lists
B. show ip access-lists interface [interface]
C. show ip interface [interface]
D. show ip access-lists [interface]

Answer: C
Explanation:

QUESTION NO: 137

Refer to the exhibit. Which rule does the DHCP server use when there is an IP address conflict?

```
Router# show ip dhcp conflict
IP address        Detection method   Detection time
172.16.1.32       Ping               Feb 16 1998 12:28 PM
172.16.1.64       Gratuitous ARP     Feb 23 1998 08:12 AM
```

A. The address is removed from the pool until the conflict is resolved.
B. The address remains in the pool until the conflict is resolved.
C. Only the IP detected by Gratuitous ARP is removed from the pool.
D. Only the IP detected by Ping is removed from the pool.
E. The IP will be shown, even after the conflict is resolved.

Answer: A

Explanation:

QUESTION NO: 138

Refer to the exhibit. You are connected to the router as user Mike. Which command allows you to see output from the OSPF debug command?

```
Router#show users
    Line       User       Host(s)              Idle       Location
*322 vty 0     Mike       idle                 00:00:00   laptop

  Interface    User               Mode         Idle     Peer Address

Router#debug ip ospf events
OSPF events debugging is on
Router#
```

A. terminal monitor
B. show debugging
C. show sessions
D. show ip ospf interface

Answer: A

Explanation:

QUESTION NO: 139

Refer to the exhibit. If number 2 is selected from the setup script, what happens when the user runs setup from a privileged prompt?

```
[0] Go to the IOS command prompt without saving this config.
[1] Return back to the setup without saving this config.
[2] Save this configuration to nvram and exit.

Enter your selection [2]:
```

A. Setup is additive and any changes will be added to the config script.
B. Setup effectively starts the configuration over as if the router was booted for the first time.
C. Setup will not run if an enable secret password exists on the router.
D. Setup will not run, because it is only viable when no configuration exists on the router.

Answer: A

Explanation:

QUESTION NO: 140

Refer to the exhibit. Which (config-router) command will allow the network represented on the interface to be advertised by RIP?

```
router rip
 version 2
 no auto-summary
!
interface ethernet0
 ip address 10.12.0.1 255.255.0.0
```

A. network ethernet0
B. redistribute 10.12.0.0
C. redistribute ethernet0
D. network 10.12.0.0

Answer: D

Explanation:

QUESTION NO: 141

Refer to the exhibit. What information can be gathered from the output?

```
RouterA#debug ip rip
RIP protocol debugging is on

00:34:32: RIP: sending v2 flash update to 224.0.0.9 via FastEthernet0/0 (172.16.1.1)
00:34:32: RIP: build flash update entries
00:34:32:       10.10.1.0/24 via 0.0.0.0, metric 1, tag 0
00:34:32: RIP: sending v2 flash update to 224.0.0.9 via Loopback0 (10.10.1.1)
00:34:32: RIP: build flash update entries
00:34:32:       10.0.0.0/8 via 0.0.0.0, metric 2, tag 0
00:34:32:       172.16.1.0/24 via 0.0.0.0, metric 1, tag 0
00:34:32: RIP: ignored v2 packet from 10.10.1.1 (sourced from one of our addresses)
00:34:33: RIP: received v2 update from 172.16.1.2 on FastEthernet0/0
00:34:33:      10.0.0.0/8 via 0.0.0.0 in 1 hops
00:34:44: RIP: sending v2 update to 224.0.0.9 via FastEthernet0/0 (172.16.1.1)
00:34:44: RIP: build update entries
00:34:44:       10.10.1.0/24 via 0.0.0.0, metric 1, tag 0
```

A. One router is running RIPvl.
B. RIP neighbor is 224.0.0.9.
C. The network contains a loop.
D. Network 10.10.1.0 is reachable.

Answer: D

Explanation:

QUESTION NO: 142

Refer to the exhibit. What type of connection would be supported by the cable diagram shown?

Pin Number	Color	Function	Pin	Color	Function
1	White/Green	TX+	1	White/Green	TX+
2	Green	TX-	2	Green	TX-
3	White/Orange	RX+	3	White/Orange	RX+
6	Orange	RX-	6	Orange	RX-

A. PC to router
B. PC to switch
C. server to router
D. router to router

Answer: B

Explanation:

The cable is wired as straight-thru.

QUESTION NO: 143

Refer to the exhibit. What type of connection would be supported by the cable diagram shown?

Pin Number	Color	Function	Pin	Color	Function
1	White/Green	TX+	3	Orange	RX+
2	Green	TX-	6	White/Orange	RX-
3	White/Orange	RX+	1	Green	TX+
6	Orange	RX-	2	White/Green	TX-

A. PC to router
B. PC to switch
C. server to switch
D. switch to router

Answer: A

Explanation:

QUESTION NO: 144

Which two statements describe the Cisco implementation of VLANs? (Choose two.)

A. VLAN 1 is the default Ethernet VLAN.
B. CDP advertisements are only sent on VLAN 1002.
C. By default, the management VLAN is VLAN 1005.
D. By default, the switch IP address is in VLAN 1005.
E. VLANs 1002 through 1005 are automatically created and cannot be deleted.

Answer: A,E

Explanation:

QUESTION NO: 145

Refer to the exhibit. What can be determined about the router from the console output?

```
1 FastEthernet/IEEE 802.3 interface(s)
125K bytes of non-volatile configuration memory.

65536K bytes of ATA PCMCIA card at slot 0 (Sector size 512 bytes).
8192K bytes of Flash internal SIMM (Sector size 256K).

         --- System Configuration Dialog ---

Would you like to enter the initial configuration dialog? [yes/no]:
```

A. No configuration file was found in NVRAM.
B. No configuration file was found in flash.
C. No configuration file was found in the PCMCIA card.
D. Configuration file is normal and will load in 15 seconds.

Answer: A

Explanation:

QUESTION NO: 146

Refer to the exhibit. What can be determined from the output?

```
Router#show ip arp
Protocol  Address          Age (min)  Hardware Addr   Type   Interface
Internet  192.168.1.1            -   ca00.17d0.0008  ARPA   FastEthernet0/0
Internet  192.168.3.1            -   ca00.17d0.0008  ARPA   FastEthernet0/0
Internet  192.168.1.2            0   ca01.17d0.0008  ARPA   FastEthernet0/0
```

A. 192.168.1.2 is local to the router.
B. 192.168.3.1 is local to the router.
C. 192.168.1.2 will age out in less than 1 minute.
D. 192.168.3.1 has aged out and is marked for deletion.

Answer: B

Explanation:

QUESTION NO: 147

Refer to the exhibit. Which command would allow the translations to be created on the router?

```
RouterA#show ip nat translations
Pro Inside global         Inside local         Outside local        Outside global
--- 1.1.128.1             10.18.14.90          ---                  ---
--- 1.1.129.107           10.18.14.91          ---                  ---
--- 1.1.130.178           10.18.14.92          ---                  ---
--- 1.1.131.177           10.18.14.89          ---                  ---
--- 1.1.132.171           10.10.16.204         ---                  ---
--- 1.1.133.172           10.10.24.210         ---                  ---
--- 1.1.134.173           10.10.24.216         ---                  ---
--- 1.1.135.168           10.19.16.95          ---                  ---
--- 1.1.134.169           10.19.16.96          ---                  ---
--- 1.1.130.170           10.20.122.234        ---                  ---
--- 1.1.135.174           10.20.122.240        ---                  ---
```

A. ip nat pool mynats 1.1.128.1 1.1.135.254 prefix-length 19
B. ip nat outside mynats 1.1.128.1 1.1.135.254 prefix-length 19
C. ip nat pool mynats 1.1.128.1 1.1.135.254 prefix-length 18
D. ip nat outside mynats 1.1.128.1 1.1.135.254 prefix-length 18

Answer: A

Explanation:

QUESTION NO: 148

Refer to the exhibit. An administrator pings the default gateway at 10.10.10.1 and sees the output as shown. At which OSI layer is the problem?

```
C:\> ping 10.10.10.1

Pinging 10.10.10.1 with 32 bytes of data:
Request timed out.
Request timed out.
Request timed out.
Request timed out.
Ping statistics for 10.10.10.1:
Packets: Sent = 4, Received = 0, Lost = 4 (100% loss)
```

A. data link layer
B. application layer
C. access layer
D. session layer
E. network layer

Answer: E

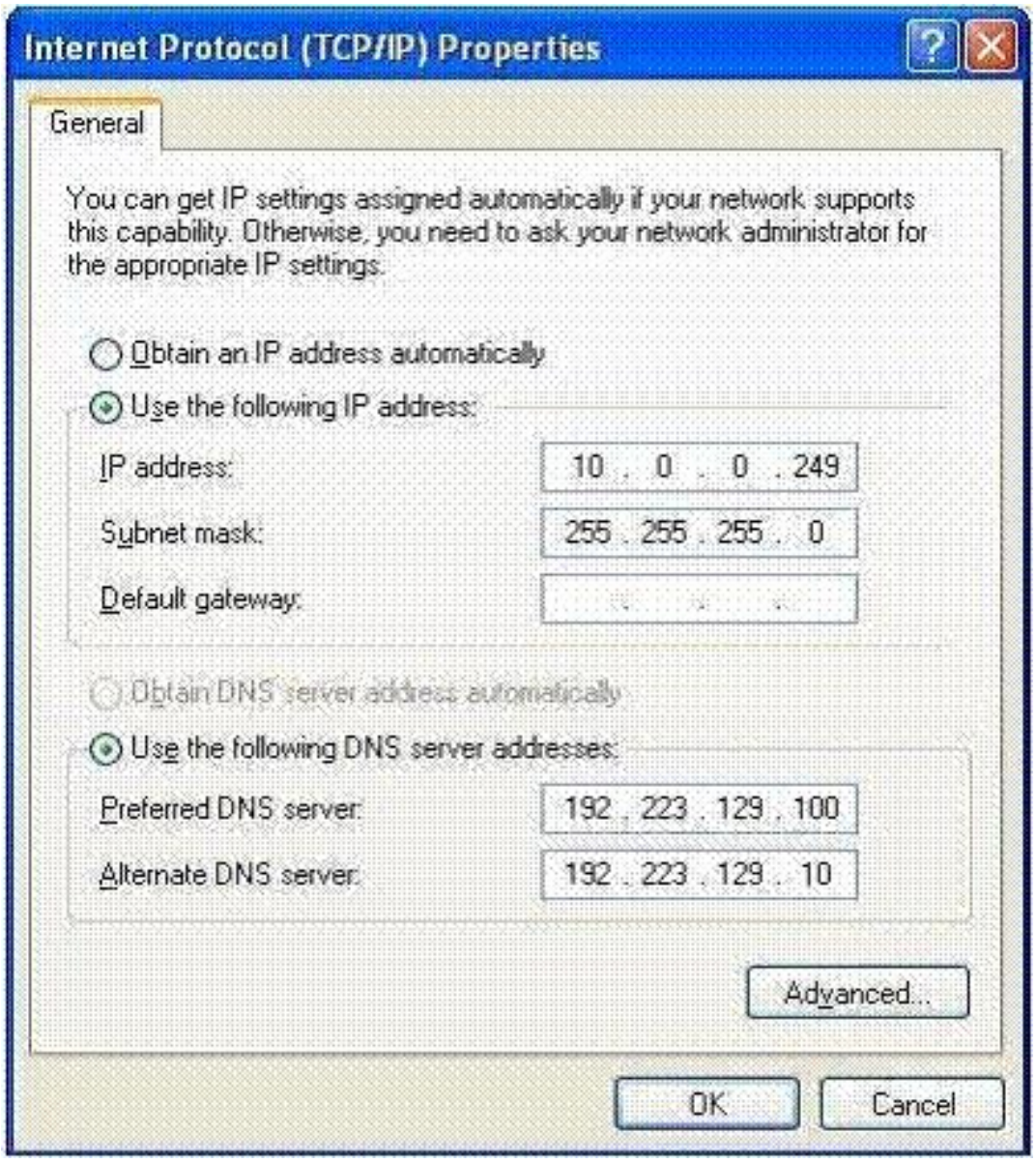
Explanation:

The command ping uses ICMP protocol, which is a network layer protocol used to propagate control message between host and router. The command ping is often used to verify the network

connectivity, so it works at the network layer.

QUESTION NO: 149

Refer to the exhibit. Which value will be configured for Default Gateway of the Local Area Connection?



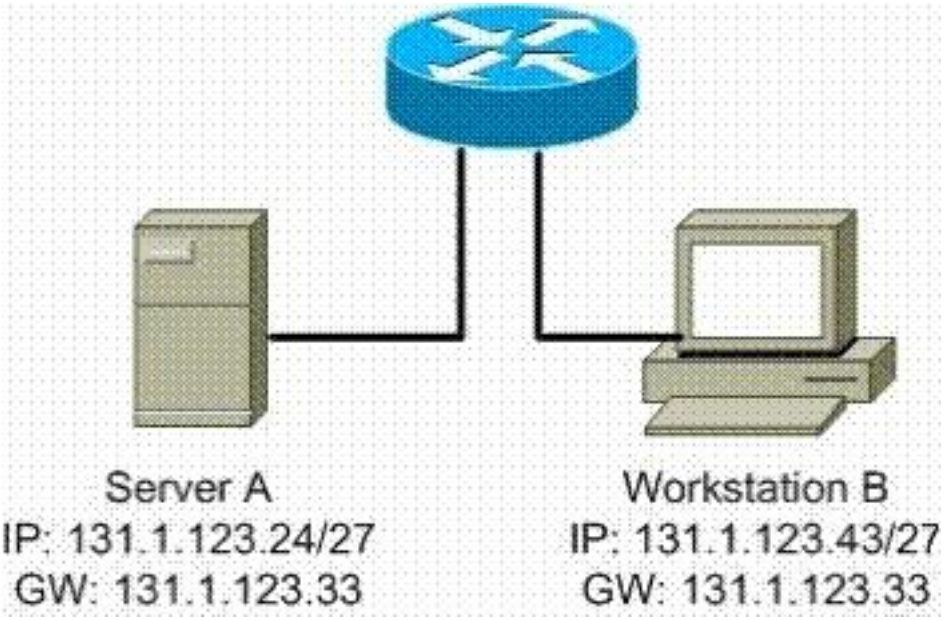
A. 10.0.0.0
B. 10.0.0.254
C. 192.223.129.0
D. 192.223.129.254

Answer: B

Explanation:

QUESTION NO: 150

Refer to the exhibit. The user at Workstation B reports that Server A cannot be reached. What is preventing Workstation B from reaching Server A?



A. The IP address for Server A is a broadcast address.
B. The IP address for Workstation B is a subnet address.
C. The gateway for Workstation B is not on the same subnet.
D. The gateway for Server A is not on the same subnet.

Answer: D

Explanation:

QUESTION NO: 151

Refer to the exhibit. What does the (*) represent in the output?

```
02:16:29: NAT: s=10.10.0.2->1.2.4.2, d=1.2.4.1 [51607]
02:16:29: NAT: s=1.2.4.1, d=1.2.4.2->10.10.0.2 [55227]
02:16:29: NAT*: s=10.10.0.2->1.2.4.2, d=1.2.4.1 [51608]
02:16:29: NAT*: s=10.10.0.2->1.2.4.2, d=1.2.4.1 [51609]
```

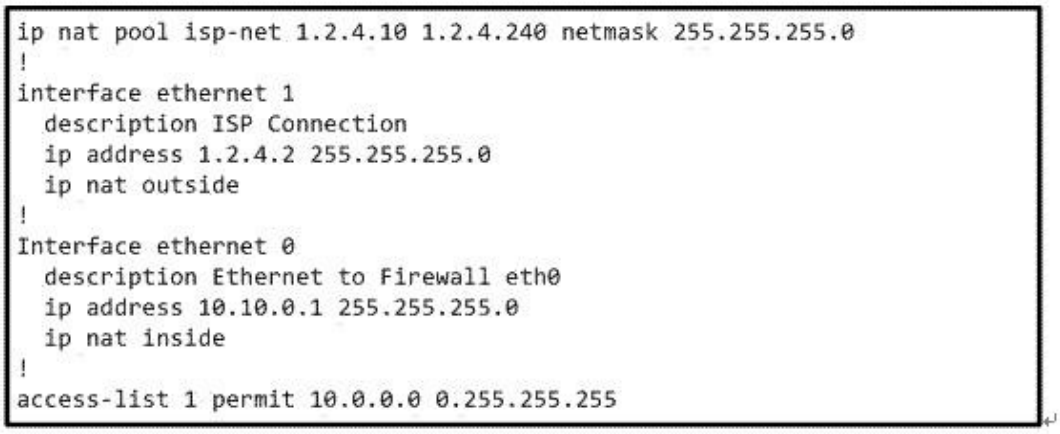
A. Packet is destined for a local interface to the router.
B. Packet was translated, but no response was received from the distant device.
C. Packet was not translated, because no additional ports are available.
D. Packet was translated and fast switched to the destination.

Answer: D

Explanation:

QUESTION NO: 152

Refer to the exhibit. What command sequence will enable PAT from the inside to outside network?



```
ip nat pool isp-net 1.2.4.10 1.2.4.240 netmask 255.255.255.0
!
interface ethernet 1
  description ISP Connection
  ip address 1.2.4.2 255.255.255.0
  ip nat outside
!
Interface ethernet 0
  description Ethernet to Firewall eth0
  ip address 10.10.0.1 255.255.255.0
  ip nat inside
!
access-list 1 permit 10.0.0.0 0.255.255.255
```

A. (config) ip nat pool isp-net 1.2.4.2 netmask 255.255.255.0 overload
B. (config-if) ip nat outside overload
C. (config) ip nat inside source list 1 interface ethernetl overload
D. (config-if) ip nat inside overload

Answer: C

Explanation:

QUESTION NO: 153

Refer to the exhibit. What will happen to HTTP traffic coming from the Internet that is destined for 172.16.12.10 if the traffic is processed by this ACL?

```
router#show access-lists
Extended IP access list 110
    10 deny tcp 172.16.0.0 0.0.255.255 any eq telnet
    20 deny tcp 172.16.0.0 0.0.255.255 any eq smtp
    30 deny tcp 172.16.0.0 0.0.255.255 any eq http
    40 permit tcp 172.16.0.0 0.0.255.255 any
```

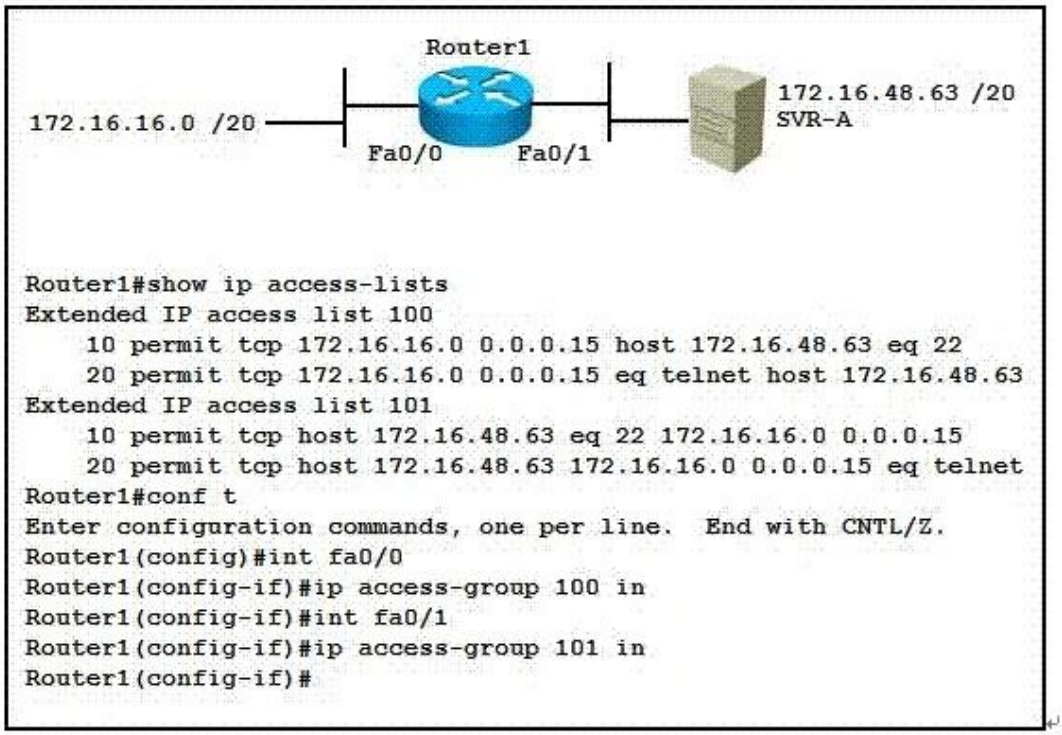
A. Traffic will be dropped per line 30 of the ACL.
B. Traffic will be accepted per line 40 of the ACL.
C. Traffic will be dropped, because of the implicit deny all at the end of the ACL.
D. Traffic will be accepted, because the source address is not covered by the ACL.

Answer: C

Explanation: In Line 30 only deny http Traffic that come from 172.16.0.0 and goes to any.

QUESTION NO: 154

Refer to the exhibit. Which statement describes the effect that the Router1 configuration has on devices in the 172.16.16.0 subnet when they try to connect to SVR-A using Telnet or SSH?



A. Devices will not be able to use Telnet or SSH.
B. Devices will be able to use SSH, but not Telnet.
C. Devices will be able to use Telnet, but not SSH.

D. Devices will be able to use Telnet and SSH.

Answer: B

Explanation:

This question is to examine the use of ACL.

According to the information provided in the exhibit, 172.16.16.0 can reach SVR by using SSH.

SVR can reach 172.16.16.0 by using telnet.

So the correct answer is B.

QUESTION NO: 155

What are three advantages of VLANs? (Choose three.)

A. VLANs establish broadcast domains in switched networks.
B. VLANs utilize packet filtering to enhance network security.
C. VLANs provide a method of conserving IP addresses in large networks.
D. VLANs provide a low-latency internetworking alternative to routed networks.
E. VLANs allow access to network services based on department, not physical location.
F. VLANs can greatly simplify adding, moving, or changing hosts on the network.

Answer: A,E,F

Explanation:

VLAN technology is often used in practice, because it can better control layer2 broadcast to improve network security. This makes network more flexible and scalable.

Packet filtering is a function of firewall instead of VLAN.

QUESTION NO: 156

An administrator would like to configure a switch over a virtual terminal connection from locations outside of the local LAN. Which of the following are required in order for the switch to be configured from a remote location? (Choose two.)

A. The switch must be configured with an IP address, subnet mask, and default gateway.
B. The switch must be connected to a router over a VLAN trunk.
C. The switch must be reachable through a port connected to its management VLAN.
D. The switch console port must be connected to the Ethernet LAN.
E. The switch management VLAN must be created and have a membership of at least one switch port.

F. The switch must be fully configured as an SNMP agent.

Answer: A,C

Explanation:

QUESTION NO: 157

Which of the following host addresses are members of networks that can be routed across the public Internet? (Choose three.)

A. 10.172.13.65
B. 172.16.223.125
C. 172.64.12.29
D. 192.168.23.252
E. 198.234.12.95
F. 212.193.48.254

Answer: C,E,F

Explanation:

QUESTION NO: 158

Given a subnet mask of 255.255.255.224, which of the following addresses can be assigned to network hosts? (Choose three.)

A. 15.234.118.63
B. 92.11.178.93
C. 134.178.18.56
D. 192.168.16.87
E. 201.45.116.159
F. 217.63.12.192

Answer: B,C,D

Explanation:

QUESTION NO: 159

Which of the following are benefits of VLANs? (Choose three.)

A. They increase the size of collision domains.
B. They allow logical grouping of users by function.
C. They can enhance network security.
D. They increase the size of broadcast domains while decreasing the number of collision domains.
E. They increase the number of broadcast domains while decreasing the size of the broadcast domains.
F. They simplify switch administration.

Answer: B,C,E

Explanation:

QUESTION NO: 160

In order to resolve the LAN connectivity problems, which router IOS commands will you use? (Choose three.)

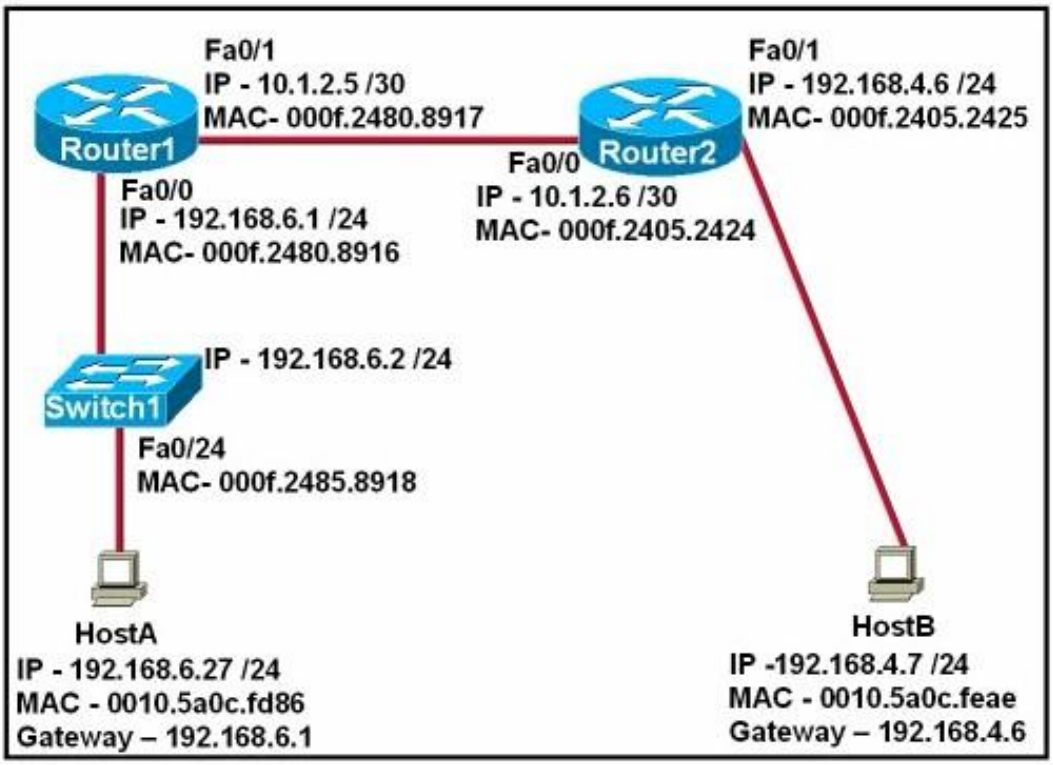
A. ping
B. tracert
C. ipconfig
D. show ip route
E. winipcfg
F. show interfaces

Answer: A,D,F

Explanation:

QUESTION NO: 161

Exhibit:



Refer to the exhibit. After HostA pings HostB, which entry will be in the ARP cache of HostA to support this transmission?

Entry exhibit

A.

Interface Address	Physical Address	Type
192.168.4.7	000f.2480.8916	dynamic

B.

Interface Address	Physical Address	Type
192.168.4.7	0010.5a0c.feae	dynamic

C.

Interface Address	Physical Address	Type
192.168.6.1	0010.5a0c.feae	dynamic

D.

Interface Address	Physical Address	Type
192.168.6.1	000f.2480.8916	dynamic

E.

Interface Address	Physical Address	Type
192.168.6.2	0010.5a0c.feae	dynamic

F.

Interface Address	Physical Address	Type
192.168.6.2	000f.2485.8918	dynamic

A. Exhibit A
B. Exhibit B
C. Exhibit C
D. Exhibit D
E. Exhibit E
F. Exhibit F

Answer: A

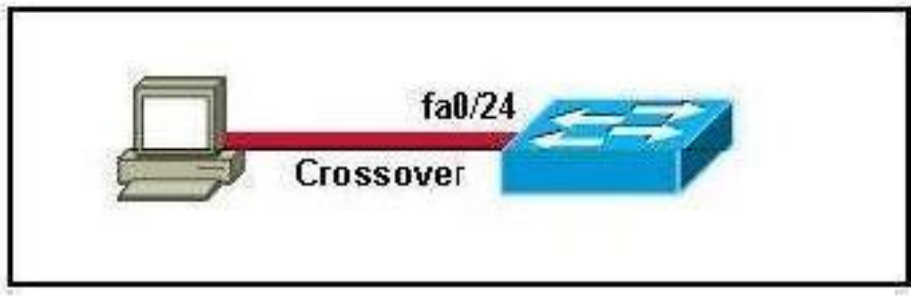
Explanation:

When a host needs to reach a device on another subnet, the ARP cache entry will be that of the Ethernet address of the local router (default gateway) for the physical MAC address. The destination IP address will not change, and will be that of the remote host (HostB).

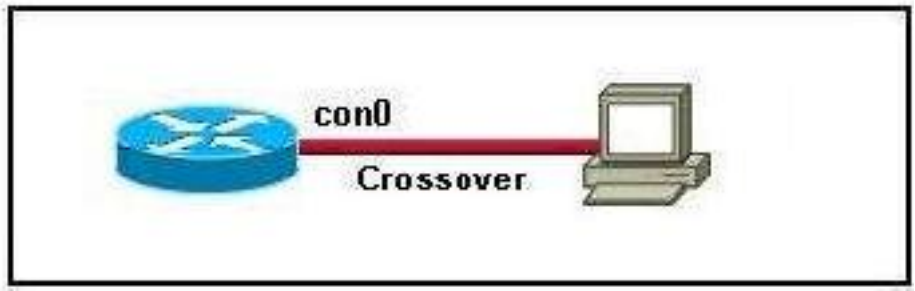
QUESTION NO: 162

Which two topologies are using the correct type of twisted-pair cables? (Choose two.)

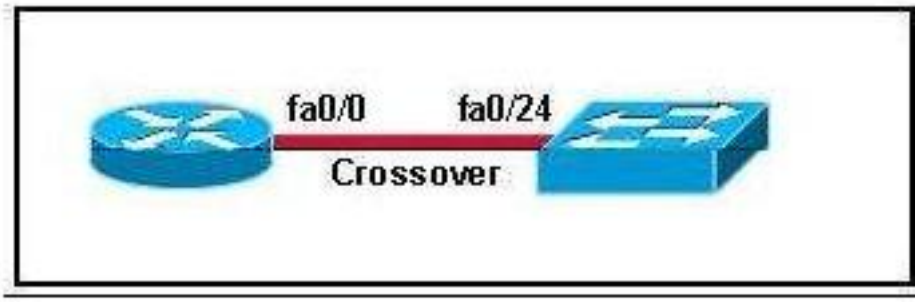
A.



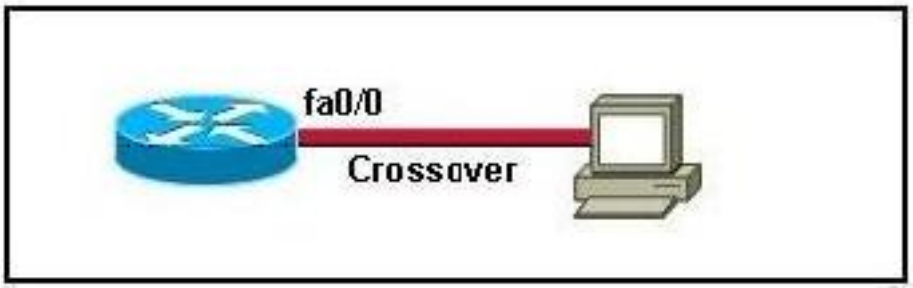
B.



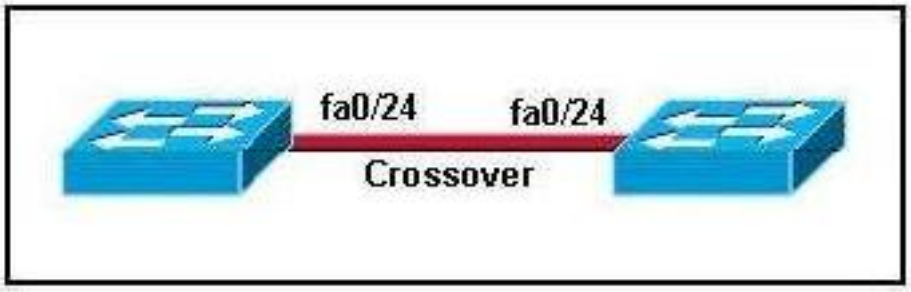
C.



D.



E.



A. Exhibit A
B. Exhibit B
C. Exhibit C
D. Exhibit D
E. Exhibit E

Answer: D,E

Explanation:

Devices of the same layer are connected by crossover cable, while devices of different layers are connected by straight-through cable.

Router ------ Crossover ------- Router

Router ------ Crossover ------- PC

Router ------ straight-through ------- Switch

Switch ------ straight-through ------- PC

Switch ------ Crossover ------- Switch

QUESTION NO: 163

Which of the following are true regarding bridges and switches? (Choose two.)

A. Bridges are faster than switches because they have fewer ports.
B. A switch is a multiport bridge.
C. Bridges and switches learn MAC addresses by examining the source MAC address of each frame received.
D. A bridge will forward a broadcast but a switch will not.
E. Bridges and switches increase the size of a collision domain.

Answer: B,C

Explanation:

Bridge is a Layer2 device, which is designed to create two or more LAN segments. Each segment is an independent collision domain. Bridge is also created to provide more available bandwidth, Its purpose is to filter the LAN traffic, making local traffic be in the local area, and those directed to other parts of the LAN (sub) be forwarded there. Each NIC on each device has a unique MAC address. Bridge will record the MAC address of each port and then make forwarding decisions based on this MAC address table.

Switch is a device of the data link layer, it combines multiple physical LAN segments into a large network.. Similar to bridge, the switch will transfer and flood the communication frames based on the MAC address. Because the switching process is performed in hardware, the switching speed of the switch is faster than that of a bridge performed by software. Regarding each switching port as a mini-bridge, then each switching port will work as an independent bridge to provide full medium's bandwidth to each host.

QUESTION NO: 164

What are some of the advantages of using a router to segment the network? (Choose two.)

A. Filtering can occur based on Layer 3 information.
B. Broadcasts are eliminated.
C. Routers generally cost less than switches.
D. Broadcasts are not forwarded across the router.
E. Adding a router to the network decreases latency.

Answer: A,D

Explanation:

The router will never forward the broadcast packet, each interface of the router is a separate broadcast domain. The router has two primary advantages:
1.By default, the router will never forward broadcasts.

QUESTION NO: 165

Which of the following statements are true regarding bridges and switches? (Choose 3.)

A. Switches are primarily software based while bridges are hardware based.
B. Both bridges and switches forward Layer 2 broadcasts.
C. Bridges are frequently faster than switches.
D. Switches have a higher number of ports than most bridges.
E. Bridges define broadcast domains while switches define collision domains.
F. Both bridges and switches make forwarding decisions based on Layer 2 addresses.

Answer: B,D,F

Explanation:

Bridge is a Layer2 device, which is designed to create two or more LAN segments. Each segment is an independent collision domain. Bridge is also created to provide more available bandwidth, Its purpose is to filter the LAN traffic, making local traffic be in the local area, and those directed to other parts of the LAN (sub) be forwarded there. Each NIC on each device has a unique MAC address. Bridge will record the MAC address of each port and then make forwarding decisions based on this MAC address table.
Switch is a device of the data link layer, it combines multiple physical LAN segments into a large network.. Similar to bridge, the switch will transfer and flood the communication frames based on the MAC address. Because the switching process is performed in hardware, the switching speed of the switch is faster than that of a bridge performed by software. Regarding each switching port as a mini-bridge, then each switching port will work as an independent bridge to provide full medium's bandwidth to each host.

QUESTION NO: 166

Which characteristics are representative of a link-state routing protocol? (Choose three.)

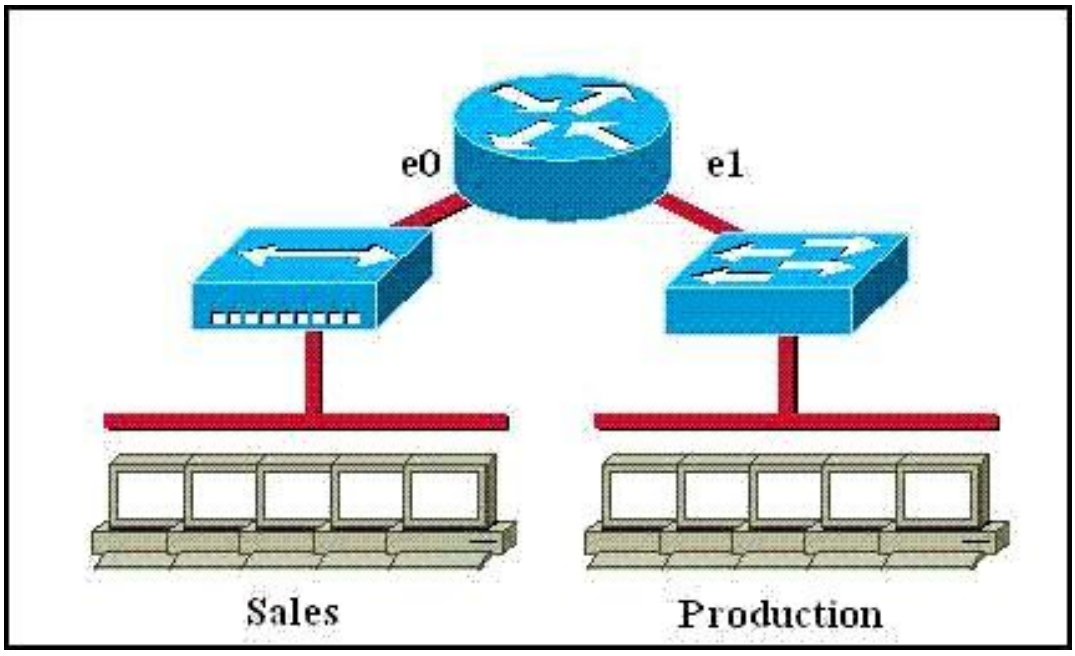
A. provides common view of entire topology
B. exchanges routing tables with neighbors
C. calculates shortest path
D. utilizes event-triggered updates
E. utilizes frequent periodic updates

Answer: A,C,D

Explanation:

QUESTION NO: 167

Which of the following statements describe the network shown in the graphic? (Choose two.)



What are the proper statements?. (Choose two)

A. There are two broadcast domains in the network.
B. There are four broadcast domains in the network.
C. There are six broadcast domains in the network.

D. There are four collision domains in the network.
E. There are five collision domains in the network.
F. There are seven collision domains in the network.

Answer: A,F

Explanation:

QUESTION NO: 168

Use the output from the router shown in the graphic above to determine which of the following are correct. (Choose two.)

```
John#show ip protocol
Routing Protocol is "rip"
  Sending updates every 30 seconds, next due in 4 seconds
  Invalid after 180 seconds, hold down 180, flushed after 240
  Outgoing update filter list for all interfaces is not set
  Incoming update filter list for all interfaces is not set
  Redistributing: rip
  Default version control: send version 1, receive any version
    Interface         Send  Recv  Triggered RIP  Key-chain
    Serial0/0         1     1 2
    Serial0/1         1     1 2
  Automatic network summarization is in effect
  Maximum path: 4
  Routing for Networks:
    10.0.0.0
  Routing Information Sources:
    Gateway         Distance      Last Update
    10.168.11.14         120      00:00:22
  Distance: (default is 120)

John#show ip interfaces brief
Interface              IP-Address      OK? Method Status
FastEthernet0/0        192.168.18.1    YES manual up
Serial0/0              10.168.11.17    YES manual up
FastEthernet0/1        unassigned      YES NVRAM  administratively down
Serial0/1              192.168.11.21   YES manual up
```

A. Router John uses a link-state routing protocol.
B. Router John will receive routing updates on the Serial0/0 interface.
C. Router John will receive routing updates on the Serial0/1 interface.
D. Router John will send routing updates out the Serial0/0 interface.
E. Router John will send routing updates out the FastEthernet0/0 interface.

F. Router John will send routing updates out the Serial0/1 interface.

Answer: B,D

Explanation:

QUESTION NO: 169

A national retail chain needs to design an IP addressing scheme to support a nationwide network. The company needs a minimum of 300 sub-networks and a maximum of 50 host addresses per subnet. Working with only one Class B address, which of the following subnet masks will support an appropriate addressing scheme? (Choose two.)

A. 255.255.255.0
B. 255.255.255.128
C. 255.255.252.0
D. 255.255.255.224
E. 255.255.255.192
F. 255.255.248.0

Answer: B,E

Explanation:

Subnetting is used to break the network into smaller more efficient subnets to prevent excessive rates of Ethernet packet collision in a large network. Such subnets can be arranged hierarchically, with the organization's network address space (see also Autonomous System) partitioned into a tree-like structure. Routers are used to manage traffic and constitute borders between subnets.
A routing prefix is the sequence of leading bits of an IP address that precede the portion of the address used as host identifier. In IPv4 networks, the routing prefix is often expressed as a "subnet mask", which is a bit mask covering the number of bits used in the prefix. An IPv4 subnet mask is frequently expressed in quad-dotted decimal representation, e.g., 255.255.255.0 is the subnet mask for the 192.168.1.0 network with a 24-bit routing prefix (192.168.1.0/24).

QUESTION NO: 170

Given the address 192.168.20.19/28, which of the following are valid host addresses on this subnet? (Choose two.)

A. 192.168.20.29
B. 192.168.20.16
C. 192.168.20.17

D. 192.168.20.31
E. 192.168.20.0

Answer: A,C
Explanation:

QUESTION NO: 171

An inbound access list has been configured on a serial interface to deny packet entry for TCP and UDP ports 21, 23 and 25. What types of packets will be permitted by this ACL? (Choose three.)

A. HTTP
B. FTP
C. POP3
D. Telnet
E. SMTP
F. DNS

Answer: A,C,F
Explanation:

The most often used port numbers of TCP/UDP are as follows:
The port numbers of TCP:
20 FTP data
21 FTP control
23 Telnet
25 SMTP
53 DNS
80 WWW
110 POP3
The port numbers of UDP
53DNS
69 TFTP
161 SNMP
NotE. DNS uses TCP to perform Zone Transfers and UDP to query name .
The ACL created on the router denied the traffic from the ports 21,23,25, thus allowing these three types of traffic such as DNS, POP3, HTTP to cross .

QUESTION NO: 172

As a network technician, do you know which are valid modes for a switch port used as a VLAN trunk? (Choose three.)

A. transparent
B. auto
C. on
D. desirable
E. blocking
F. forwarding

Answer: B,C,D

Explanation:

Both the auto and on modes can be automatically switched to the desirable mode based on the topology.

A trunk port can be configured as one of the following 5 different modes: on, off, desirable, auto, or nonegotiate.

QUESTION NO: 173

OSPF routing uses the concept of areas. What are the characteristics of OSPF areas? (Choose Three.)

A. Each OSPF area requires a loopback interface to be configured.
B. Areas may be assigned any number from 0 to 65535.
C. Area 0 is called the backbone area.
D. Hierarchical OSPF networks do not require multiple areas.
E. Multiple OSPF areas must connect to area 0.
F. Single area OSPF networks must be configured in area 1.

Answer: B,C,E

Explanation:

Answer A is wrong because of the “requires”

Answer B is tricky but is correct

Definition of OSPF areas: An OSPF network may be structured, or subdivided, into routing *areas* to simplify administration and optimize traffic and resource utilization. Areas are identified by 32-bit numbers, expressed either simply in decimal, or often in octet-based dot-decimal notation, familiar from IPv4 address notation.

Answer C is correct.
Answer D is NOT correct.
Answer E is correct
Answer F is NOT correct.

See discussion following Cisco Learning discussion.

https://learningnetwork.cisco.com/message/90832

QUESTION NO: 174

What information can be used by a router running a link-state protocol to build and maintain its topological database? (Choose two.)

A. hello packets
B. SAP messages sent by other routers
C. LSAs from other routers
D. beacons received on point-to-point links
E. routing tables received from other link-state routers
F. TTL packets from designated routers

Answer: A,C
Explanation:

QUESTION NO: 175

Which items are correct about the routing protocol OSPF? (Choose three.)

A. It supports VLSM.
B. It is used to route between autonomous systems.
C. It confines network instability to one area of the network.
D. It increases routing overhead on the network.
E. It allows extensive control of routing updates.
F. It is simpler to configure than RIP v2.

Answer: A,C,E
Explanation:

QUESTION NO: 176

The switches shown in the diagram.

Core and Core2, are both Catalyst 2950s.

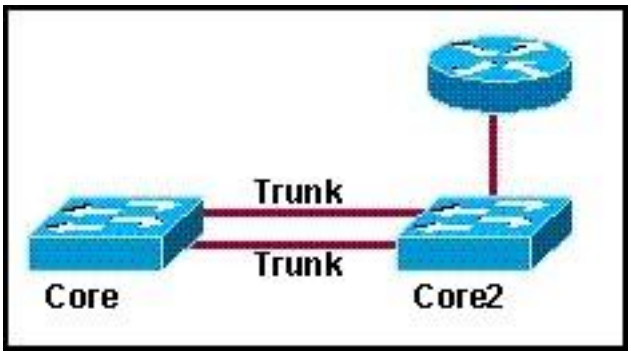
The addressing scheme for each company site is as follows:

Router Ethernet port: 1st usable address

CorE. second usable address

Core2: third usable address

For this network, which of the following commands must be configured on Core2 to allow it to be managed remotely from any subnet on the network? (Choose three.)



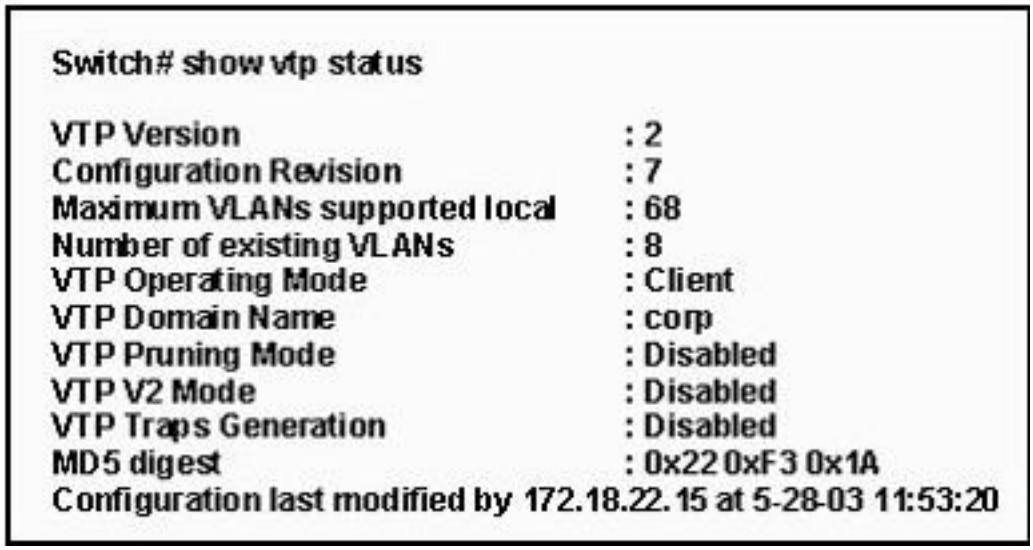
A. Core2(config)# interface f0/0
Core2(config-if)# ip address 192.168.1.10 255.255.255.248
B. Core2(config)# interface vlan 1
Core2(config-if)# ip address 192.168.1.11 255.255.255.248
C. Core2(config)# line con 0 Core2(config-line)# password cisco
D. Core2(config)# line vty 0 4 Core2(config-line)# password cisco
E. Core2(config)# ip default-gateway 192.168.1.9
F. Core2(config)# ip route 0.0.0.0 0.0.0.0 192.168.1.8

Answer: B,D,E
Explanation:

QUESTION NO: 177

An administrator is unsuccessful in adding VLAN 50 to a switch. While troubleshooting the

problem, the administrator views the output of the show vtp status command, which is displayed in the graphic. What commands must be issued on this switch to add VLAN 50 to the database? (Choose two.)



A. Switch(config-if)# switchport access vlan 50
B. Switch(vlan)#vtp mode server
C. Switch(config)# config-revision 20
D. Switch(config)# vlan 50 name Tech
E. Switch(vlan)#vlan50
F. Switch(vlan)# switchport trunk vlan 50

Answer: B,E

Explanation:

QUESTION NO: 178

Which of the following IP addresses fall into the CIDR block of 115.64.4.0/22? (Choose three.)

A. 115.64.8.32
B. 115.64.7.64
C. 115.64.6.255
D. 115.64.3.255
E. 115.64.5.128
F. 115.64.12.128

Answer: B,C,E

Explanation:

QUESTION NO: 179

Which of the following are types of flow control? (Choose three.)

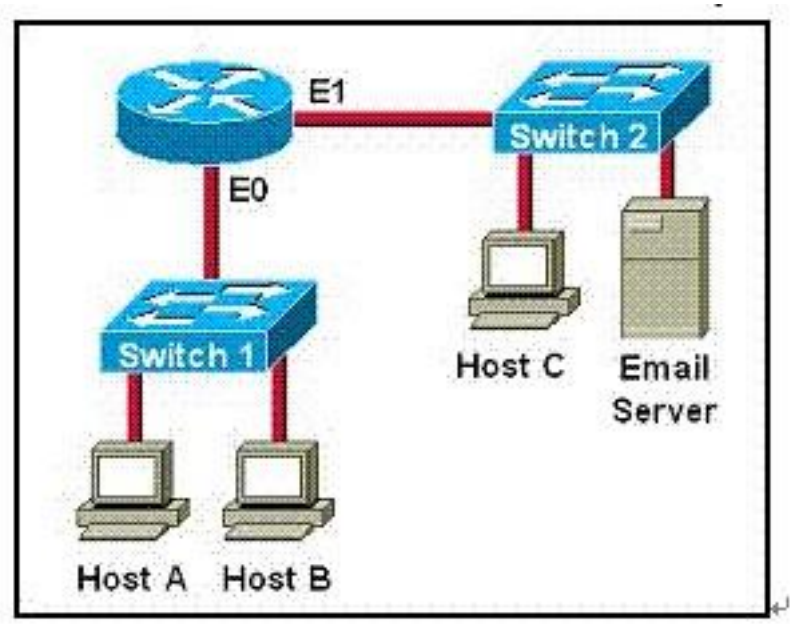
A. buffering
B. cut-through
C. windowing
D. congestion avoidance
E. load balancing

Answer: A,C,D

Explanation:

QUESTION NO: 180

Which destination addresses will be used by Host A to send data to Host C? (Choose two.)



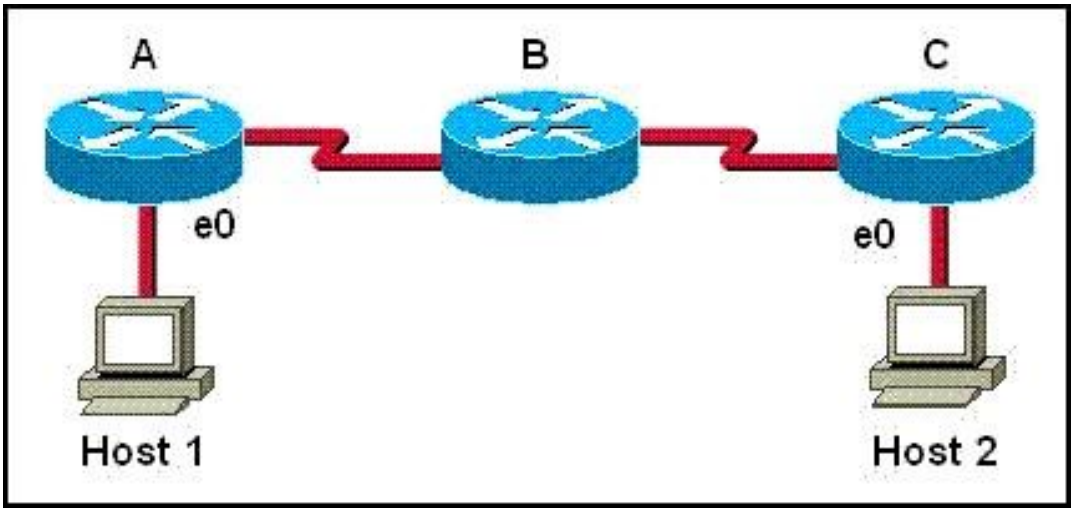
A. the IP address of Switch 1
B. the MAC address of Switch 1
C. the IP address of Host C
D. the MAC address of Host C
E. the IP address of the router's E0 interface
F. the MAC address of the router's E0 interface

Answer: C,F

Explanation:

QUESTION NO: 181

Host 1 is trying to communicate with Host 2. The e0 interface on Router C is down. Which of the following are true? (Choose two.)



A. Router C will send a Destination Unreachable message type.
B. Router C will send a Source Quench message type.
C. Router C will use ICMP to inform Host 1, Router A, and Router B that Host 2 cannot be reached.
D. Router C will send a Router Selection message type.
E. Router C will use ICMP to inform Host 1 that Host 2 cannot be reached.
F. Router C will use ICMP to inform Router B that Host 2 cannot be reached.

Answer: A,E

Explanation:

Host 1 is trying to communicate with Host 2. The e0 interface on Router C is down. Router C will send ICMP packets to inform Host 1 that Host 2 cannot be reached.

QUESTION NO: 182

To configure the VLAN trunking protocol to communicate VLAN information between two switches, what two requirements must be met? (Choose two.)

A. Each end of the trunk line must be set to IEEE 802.1 E encapsulation.
B. The VTP management domain name of both switches must be set the same.
C. All ports on both the switches must be set as access ports.
D. One of the two switches must be configured as a VTP server.
E. A rollover cable is required to connect the two switches together.
F. A router must be used to forward VTP traffic between VLANs.

Answer: B,D

Explanation:

VLAN Trunking Protocol (VTP) is a Cisco proprietary Layer 2 messaging protocol that manages the addition, deletion, and renaming of VLANs on a network-wide basis. Virtual Local Area Network (VLAN) Trunk Protocol (VTP) reduces administration in a switched network. When you configure a new VLAN on one VTP server, the VLAN is distributed through all switches in the domain. This reduces the need to configure the same VLAN everywhere. To do this VTP carries VLAN information to all the switches in a VTP domain. VTP advertisements can be sent over ISL, 802.1q, IEEE 802.10 and LANE trunks. VTP traffic is sent over the management VLAN (VLAN1), so all VLAN trunks must be configured to pass VLAN1. VTP is available on most of the Cisco Catalyst Family products.

VTP operates in one of three modes:

Server - In this VTP mode you can create, remove, and modify VLANs. You can also set other configuration options like the VTP version and also turn on/off VTP pruning for the entire VTP domain. VTP servers advertise their VLAN configuration to other switches in the same VTP domain and synchronize their VLAN configuration with other switches based on messages received over trunk links. VTP server is the default mode. The VLANs information are stored on NVRAM and they are not lost after a reboot.

Client - VTP clients behave the same way as VTP servers, but you cannot create, change, or delete VLANs on the local device. In VTP client mode, VLAN configurations are not saved in NVRAM.

QUESTION NO: 183

Which of the following describe the process identifier that is used to run OSPF on a router? (Choose two.)

A. It is locally significant.
B. It is globally significant.
C. It is needed to identify a unique instance of an OSPF database.
D. It is an optional parameter required only if multiple OSPF processes are running on the router.
E. All routers in the same OSPF area must have the same process ID if they are to exchange routing information.

Answer: A,C

Explanation:

QUESTION NO: 184

What functions do routers perform in a network? (Choose two.)

A. packet switching
B. access layer security
C. path selection
D. VLAN membership assignment
E. bridging between LAN segments
F. microsegmentation of broadcast domains

Answer: A,C

Explanation:

(1) Intercept datagrams sent to remote network segments between networks, playing a translated role.

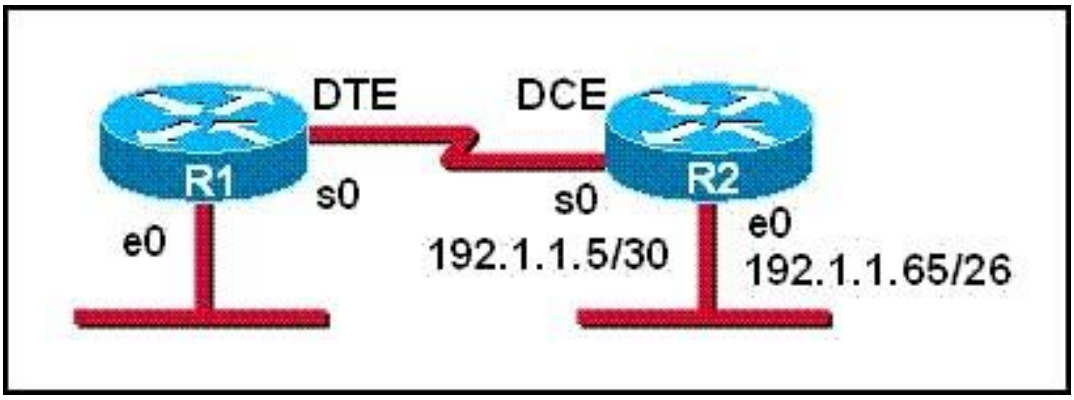
(2) Select the most reasonable route to guide communications. In order to achieve this function, the router will check the routing table based on certain routing communication protocol, and the routing table lists all the nodes contained in the entire internet , the path conditions between nodes and transmission costs associated with them. If a specific node has more than one path, then select the optimal path based on pre-determined specifications. Because a variety of network segments and their mutual connection situations may change, the routing information needs to be updated in time, which is completed by timing update or updating according to changes determined by the routing information protocol used. Each router in the network dynamically updates its routing table according to this rule to maintain effective routing information.

(3) When forwarding datagrams, in order to facilitate transferring datagrams between networks, routers will divide large data packets into appropriate sized data packets according to pre-determined specifications, and those appropriate sized data packets will be turned into their original form when reaching the destination.

(4) Multi-protocol routers can connect and use network segments of different communication protocols, they can be used as communication connecting platforms of network segments of different communication protocols.

QUESTION NO: 185

Which series of commands will configure router R1 for LAN-to-LAN communication with router R2? The enterprise network address is 192.1.1.0/24 and the routing protocol in use is RIP. (Choose three.)



A. R1(config)# interface ethernet 0
R1(config-if)# ip address 192.1.1.129 255.255.255.192
R1(config-if)# no shutdown
B. R1(config)# interface ethernet 0
R1(config-if)# ip address 192.1.1.97 255.255.255.192
R1(config-if)# no shutdown
C. R1(config)# interface serial 0
R1(config-if)# ip address 192.1.1.4 255.255.255.252
R1(config-if)# clock rate 56000
D. R1(config)# interface serial 0
R1(config-if)# ip address 192.1.1.6 255.255.255.252
R1(config-if)# no shutdown
E. R1(config)# router rip
R1(config-router)# network 192.1.1.4
R1(config-router)# network 192.1.1.128
F. R1(config)# router rip
R1(config-router)# version 2
R1(config-router)# network 192.1.1.0

Answer: A,D,F

Explanation:

QUESTION NO: 186

A network administrator wants to ensure that only the server can connect to port Fa0/1 on a Catalyst switch. The server is plugged into the switch Fa0/1 port and the network administrator is about to bring the server online. What can the administrator do to ensure that only the MAC