CCNA – Basic Questions

Question 1

Which network topology allows all traffic to flow through a central hub?

A. bus
B. star
C. mesh
D. ring

Answer: B

Question 2

What is true about Ethernet? (Choose two)

A. 802.2 Protocol
B. 802.3 Protocol
C. 10BaseT half duplex\
D. CSMA/CD stops transmitting when congestion occurs
E. CSMA/CA stops transmitting when congestion occurs

Answer: B D

Question 3

If a router has 3 hosts connected in one port and two other hosts connected in another port, how may broadcast domains are present on the router?

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

Answer: B

Question 4

On which type of device is every port in the same collision domain?

A. a router
B. a Layer 2 switch
C. a hub

Answer: C

Question 5

Which MTU size can cause a baby giant error?

A. 1500
B. 9216
C. 1600
D. 1518

Answer: D

Question 6

What are three characteristics of the TCP protocol? (Choose three)

A. The connection is established before data is transmitted.
B. It uses a single SYN-ACK message to establish a connection.
C. It ensures that all data is transmitted and received by the remote device.
D. It uses separate SYN and ACK messages to establish a connection.
E. It supports significantly higher transmission speeds than UDP.
F. It requires applications to determine when data packets must be retransmitted.

Answer: A C D

CCNA – OSI & TCP/IP Model

http://www.9tut.com/osi-model-questions

Question 1

Which statements correctly describe steps in the OSI data encapsulation process?

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

Question 2

What layer of the OSI Model is included in TCP/IP Model's INTERNET layer?

A. Application
B. Session
C. Data Link
D. Presentation
E. Network

Answer: E

CCNA – WAN Questions

Question 1

Which command can you enter to determine whether serial interface 0/2/0 has been configured using HDLC encapsulation?

A. router#show platform
B. router#show ip interface s0/2/0
C. router#show interfaces Serial 0/2/0
D. router#show ip interface brief

Answer: C

Question 2

Which Layer 2 protocol encapsulation type supports synchronous and asynchronous circuits and has built-in security mechanisms?

A. X.25
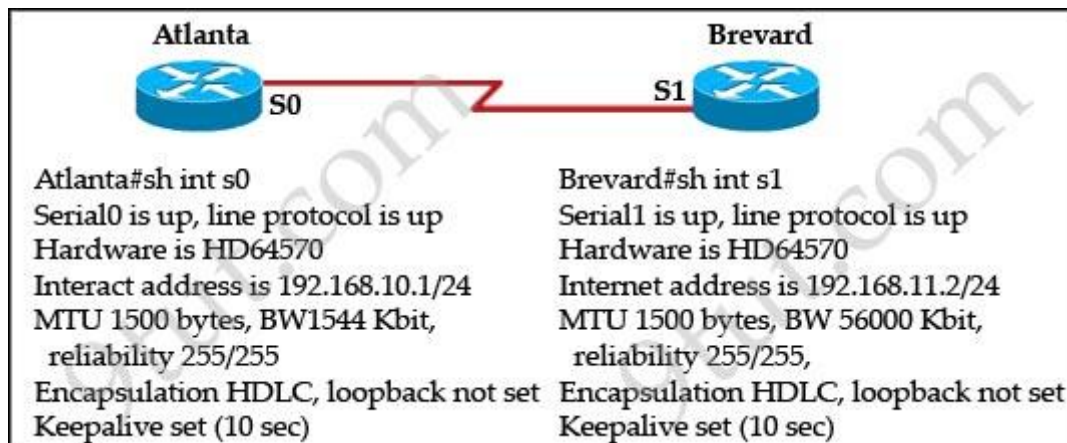B. HDLC
C. PPP
D. Frame Relay

Answer: C

Question 3

Which statements about using leased lines for your WAN infrastructure are true?

A. Leased lines provide inexpensive WAN access.
B. Leased lines with sufficient bandwidth can avoid latency between endpoints.
C. Leased lines require little installation and maintenance expertise.
D. Leased lines provide highly flexible bandwidth scaling.
E. Multiple leased lines can share a router interface.
F. Leased lines support up to T1 link speeds.

Answer: C D

Question 4

Two routers named Atlanta and Brevard are connected by their serial interfaces as illustrated, but there is no connectivity between them. The Atlanta router is known to have a correct configuration. Given the partial configurations, identify the problem on the Brevard router that is causing the lack of connectivity.


```
Atlanta                                    Brevard
        S0                          S1

Atlanta#sh int s0                    Brevard#sh int s1
Serial0 is up, line protocol is up   Serial1 is up, line protocol is up
Hardware is HD64570                   Hardware is HD64570
Interact address is 192.168.10.1/24  Internet address is 192.168.11.2/24
MTU 1500 bytes, BW1544 Kbit,         MTU 1500 bytes, BW 56000 Kbit,
  reliability 255/255                   reliability 255/255,
Encapsulation HDLC, loopback not set Encapsulation HDLC, loopback not set
Keepalive set (10 sec)               Keepalive set (10 sec)
```

A. transmission unit size too large
B. no loopback set
C. an incorrect subnet mask
D. incompatible encapsulation at each end
E. an incorrect IP address
F. incompatible bandwidth between routers

Answer: E

Question 5

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

Question 6

Which two pieces of information are provided by the "show controllers serial 0" command? (Choose two)

A. the type of cable that is connected to the interface.
B. The uptime of the interface
C. the status of the physical layer of the interface
D. the full configuration of the interface
E. the interface's duplex settings

Answer: A C

PPP Questions

http://www.9tut.com/ppp-questions

Question 1

Which two statements about using the CHAP authentication mechanism in a PPP link are true? (Choose two)

A. CHAP uses a two-way handshake.
B. CHAP uses a three-way handshake.

C. CHAP authentication periodically occurs after link establishment.
D. CHAP authentication passwords are sent in plaintext.
E. CHAP authentication is performed only upon link establishment.
F. CHAP has no protection from playback attacks.

Answer: B C

Question 2

A network administrator needs to configure a serial link between the main office and a remote location. The router at the remote office is a non-Cisco router. How should the network administrator configure the serial interface of the main office router to make the connection?

A. Main(config)# interface serial 0/0
Main(config-if)# ip address 172.16.1.1 255.255.255.252
Main(config-if)# no shut

B. Main(config)# interface serial 0/0
Main(config-if)# ip address 172.16.1.1 255.255.255.252
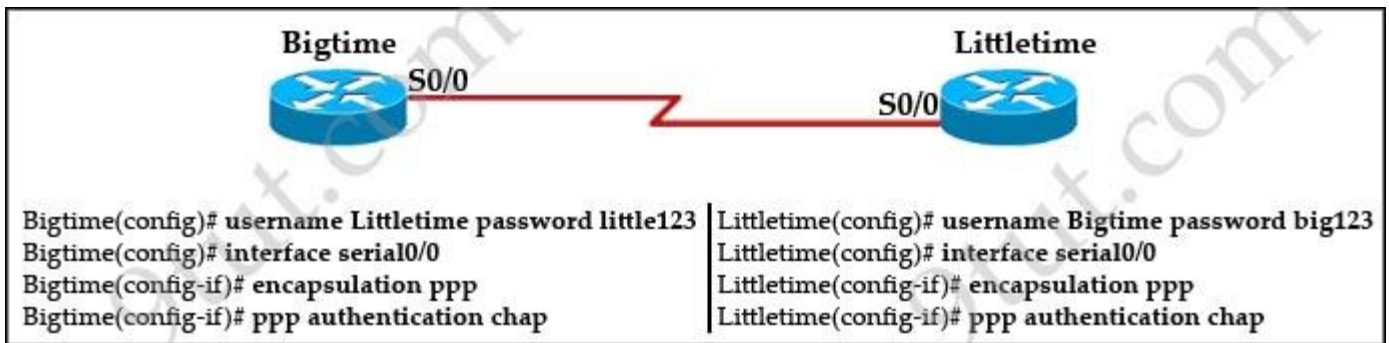Main(config-if)# encapsulation ppp
Main(config-if)# no shut

C. Main(config)# interface serial 0/0
Main(config-if)# ip address 172.16.1.1 255.255.255.252
Main(config-if)# encapsulation frame-relay
Main(config-if)# authentication chap
Main(config-if)# no shut

D. Main(config)# interface serial 0/0
Main(config-if)#ip address 172.16.1.1 255.255.255.252
Main(config-if)#encapsulation ietf
Main(config-if)# no shut

Answer: B

Question 3

Refer to the exhibit:

```
Bigtime(config)# username Littletime password little123   Littletime(config)# username Bigtime password big123
Bigtime(config)# interface serial0/0                      Littletime(config)# interface serial0/0
Bigtime(config-if)# encapsulation ppp                     Littletime(config-if)# encapsulation ppp
Bigtime(config-if)# ppp authentication chap               Littletime(config-if)# ppp authentication chap
```

The Bigtime router is unable to authenticate to the Littletime router. What is the cause of the problem?

A. The usernames are incorrectly configured on the two routers.
B. The passwords do not match on the two routers.
C. CHAP authentication cannot be used on a serial interface.
D. The routers cannot be connected from interface S0/0 to interface S0/0.
E. With CHAP authentication, one router must authenticate to another router. The routers cannot be configured to authenticate to each other.

Answer: B

Question 4

What is the benefit of point-to-point leased line? (Choose two)

A. Low cost
B. Full-mesh capability
C. Flexibility of design
D. Simply configuration

Answer: C (?) D

PPPoE Questions

http://www.9tut.com/pppoe-questions

Question 1

Which part of the PPPoE server configuration contains the information used to assign an IP address to a PPPoE client?

A. virtual-template interface
B. DHCP

C. dialer interface
D. AAA authentication

Answer: A

Question 2

During which phase of PPPoE is PPP authentication performed?

A. the PPP Session phase
B. Phase 2
C. the Active Discovery phase
D. the Authentication phase
E. Phase 1

Answer: A

Question 3

Which type of interface can negotiate an IP address for a PPPoE client?

A. Ethernet
B. dialer
C. serial
D. Frame Relay

Answer: B

MPLS Questions

http://www.9tut.com/mpls-questions

Question 1

Which statement about MPLS is true?

A. It operates in Layer 1.
B. It operates between Layer 2 and Layer 3.
C. It operates in Layer 3.
D. It operates in Layer 2.

Answer: B

Question 2

What's are true about MPLS?

A. It use a label to separate traffic from several costumer
B. It use IPv4 IPv6
C. other
D. other

Answer: A

DMVPN Questions

Question 1

Which type of topology is required by DMVPN?

A. ring
B. full mesh
C. hub-and-spoke
D. partial mesh

Answer: C

Question 2

Which circumstances can cause a GRE tunnel to be in an up/down state?

A. The tunnel interface IP address is misconfigured.
B. The tunnel interface is down.
C. A valid route to the destination address is missing from the routing table.
D. The tunnel address is routed through the tunnel itself.
E. The ISP is blocking the traffic.
F. An ACL is blocking the outbound traffic.

Answer: B C D

CDP & LLDP Questions

Question 1

Which command would you configure globally on a Cisco router that would allow you to view directly connected Cisco devices?

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

Answer: A

Question 2

Which statement about LLDP is true?

A. It is a Cisco proprietary protocol.
B. It is configured in global configuration mode.
C. The LLDP update frequency is a fixed value.
D. It runs over the transport layer.

Answer: B

Question 3

What is true about Cisco Discovery Protocol?

A. it discovers the routers, switches and gateways.
B. it is network layer protocol
C. it is physical and data link layer protocol
D. it is proprietary protocol

Answer: D

IP Address Questions

http://www.9tut.com/ip-address-questions

Question 1

Which two statements about IPv4 multicast traffic are true? (Choose two)

A. It burdens the source host without affecting remote hosts.
B. It uses a minimum amount of network bandwidth.
C. It is bandwidth-intensive.

D. It simultaneously delivers multiple streams of data.
E. It is the most efficient way to deliver data to multiple receivers.

Answer: B E

Question 2

What are benefits of private IPv4 IP addresses?

A. They are routed the same as public IP addresses.
B. They are less costly than public IP addresses.
C. They can be assigned to devices without Internet connections.
D. They eliminate the necessity for NAT policies.
E. They eliminate duplicate IP conflicts.

Answer: B C

Question 3

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

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

Answer: B

Question 4

Which destination IP address can a host use to send one message to multiple devices across different subnets?

A. 172.20.1.0
B. 127.0.0.1
C. 192.168.0.119
D. 239.255.0.1

Answer: D

Question 5

Which RFC was created to alleviate the depletion of IPv4 public addresses?

A. RFC 4193
B. RFC 1519

C. RFC 1518
D. RFC 1918

Answer: C

Question 6

Which IPv6 feature is supported in IPv4 but is not commonly used?

A. unicast
B. multicast
C. anycast
D. broadcast

Answer: C

Switch Questions

http://www.9tut.com/switch-questions

Question 1

Which switching method duplicates the first six bytes of a frame before making a switching decision?

A. fragment-free switching
B. cut-through switching
C. store-and-forward switching
D. ASIC switching

Answer: B

Question 2

Refer to the exhibit. Which of these statements correctly describes the state of the switch once the boot process has been completed?

```
00:00:39: %LINEPROTO-5-UPDOWN: Line protocol on Interface Vlan1, changed state to down
00:00:40: %SPANTREE-5-EXTENDED_SYSID: Extended SysId enabled for type vlan
00:00:42: %SYS-5-CONFIG_I: Configured from memory by console
00:00:42: %SYS-5-RESTART: System restarted --
Cisco IOS Software, C2960 Software (C2960-LANBASEK9-M), Version 12.2(25)SEE2, RELEASE SOF
Copyright (c) 1986-2006 by Cisco Systems, Inc.
Compiled Fri 28-Jul-06 11:57 by yenanh
00:00:44: %LINK-5-CHANGED: Interface Vlan1, changed state to administratively down
00:00:44: %LINK-3-UPDOWN: Interface FastEthernet0/1, changed state to up
00:00:44: %LINK-3-UPDOWN: Interface FastEthernet0/2, changed state to up
00:00:44: %LINK-3-UPDOWN: Interface FastEthernet0/11, changed state to up
00:00:45: %LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/1, changed state to up
00:00:45: %LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/2, changed state to up
00:00:45: %LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/11, changed state to up
00:00:48: %LINK-3-UPDOWN: Interface FastEthernet0/12, changed state to up
00:00:49: %LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/12, changed state to up
```

A. As FastEthernet0/12 will be the last to come up, it will not be blocked by STP.
B. Remote access management of this switch will not be possible without configuration change.
C. More VLANs will need to be created for this switch.
D. The switch will need a different IOS code in order to support VLANs and STP.

Answer: B

Question 3

The network administrator normally establishes a Telnet session with the switch from host A. The administrator's attempt to establish a connect via Telnet to the switch from host B fails, but pings from host B to other two hosts are successful. What is the issue for this problem?

```
Switch# show ip interface brief
Interface         IP-Address   OK? Method  Status  Protocol
Vlan 1            172.19.1.250 Yes manual  up      up
FastEthernet0/1   unassigned   Yes unset   up      up
FastEthernet0/2   unassigned   Yes unset   up      up
FastEthernet0/3   unassigned   Yes unset   up      up
<output omitted>
```
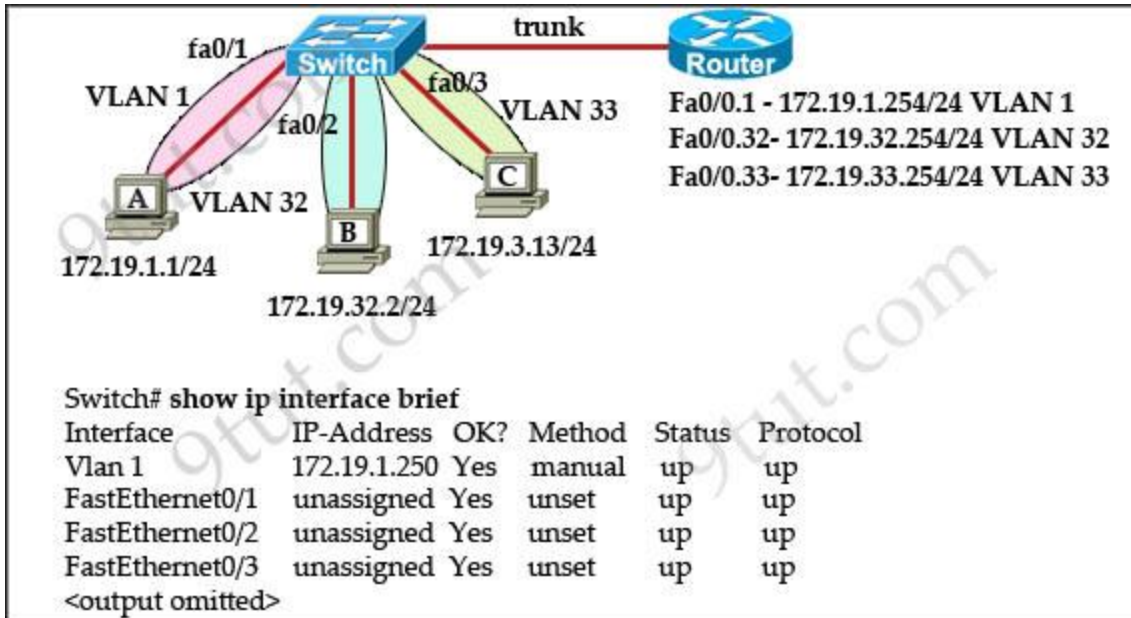
A. Host B and the switch need to be in the same subnet.
B. The switch needs an appropriate default gateway assigned.
C. The switch interface connected to the router is down.
D. Host B need to be assigned an IP address in vlan 1.

Answer: B

Question 4

The network administrator cannot connect to Switch1 over a Telnet session, although the hosts attached to Switch1 can ping the interface Fa0/0 of the router. Given the information in the graphic and assuming that the router and Switch2 are configured properly, which of the following commands should be issued on Switch1 to correct this problem?

192.168.24.1/24   192.168.25.1/24
Fa0/0   Fa0/1
Switch1   Switch2
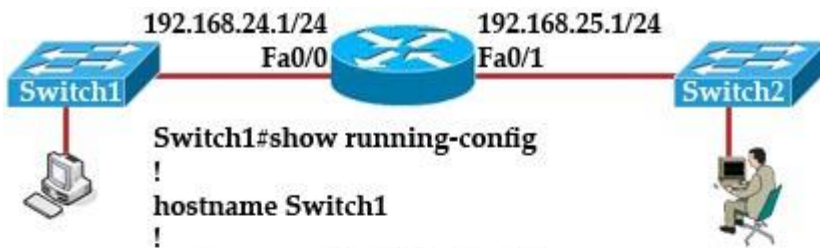
Switch1#show running-config
!
hostname Switch1
!
enable secret 5ka$jflkjs$dsf$dk
enable password guess
!
interface Vlan1
 ip address 192.168.24.2 255.255.255.0
!
ip http server
!
line con 0
line vty 0 4
 password cisco
 login
!
end

A. Switch1 (config)# line con0
Switch1 (config-line)# password cisco
Switch1 (config-line)#login

B. Switch1 (config)# interface fa0/1
Switch 1(config-if)# ip address 192.168.24.3 255.255.255.0

C. Switch1 (config)# ip default-gateway 192.168.24.1

D. Switch1 (config)# interface fa0/1
Switch 1(config-if)# duplex full
Switch 1(config-if)# speed 100

E. Switch1 (config)# interface fa0/1
Switch 1(config-if)# switchport mode trunk

Answer: C

Question 5

Which command can you use to set the hostname on a switch?

A. switch-mdf-c1(config)#hostname switch-mdf1
B. switch-mdf-c1>hostname switch-mdf1
C. switch-mdf-c1#hostname switch-mdf1
D. switch-mdf-c1(config-if)#hostname switch-mdf1

Answer: A

Question 6

Refer to the exhibit. What is the effect of the given configuration?

```
Switch#configuration terminal
Switch#interface VLAN 1
Switch(config-if)#ip address 192.168.2.2 255.255.255.0
Switch(config-if)#end
```

A. It configures an inactive switch virtual interface.
B. It configures an active management interface.
C. It configures the native VLAN.
D. It configures the default VLAN.

Answer: A

Question 7

Which statement about switch access ports is true?

A. They drop packets with 802.1Q tags.
B. A VLAN must be assigned to an access port before it is created.
C. They can receive traffic from more than one VLAN with no voice support
D. By default, they carry traffic for VLAN 10.

Answer: A

Question 8

Which feature allows a device to use a switch port that is configured for half-duplex to access the network?

A. CSMA/CD
B. IGMP
C. port security
D. split horizon

Answer: A

Question 9

Which option is a invalid hostname for a switch?

A. 5witch-Cisco
B. Switch-Cisco!
C. 5witchCisc0
D. SwitchCisc0

Answer: B

Question 10

Which statement about unicast frame forwarding on a switch is true?

A. The TCAM table stores destination MAC addresses
B. If the destination MAC address is unknown, the frame is flooded to every port that is configured in the same VLAN except on the port that it was received on.
C. The CAM table is used to determine whether traffic is permitted or denied on a switch
D. The source address is used to determine the switch port to which a frame is forwarded

Answer: B

Question 11

Two hosts are attached to a switch with the default configuration. Which statement about the configuration is true?

A. IP routing must be enabled to allow the two hosts to communicate.
B. The two hosts are in the same broadcast domain.
C. The switch must be configured with a VLAN to allow the two hosts to communicate.
D. Port security prevents the hosts from connecting to the switch.

Answer: B

Question 12

Configuration of which option is required on a Cisco switch for the Cisco IP phone to work?

A. PortFast on the interface
B. the interface as an access port to allow the voice VLAN ID
C. a voice VLAN ID in interface and global configuration mode
D. Cisco Discovery Protocol in global configuration mode

Answer: B

Question 13
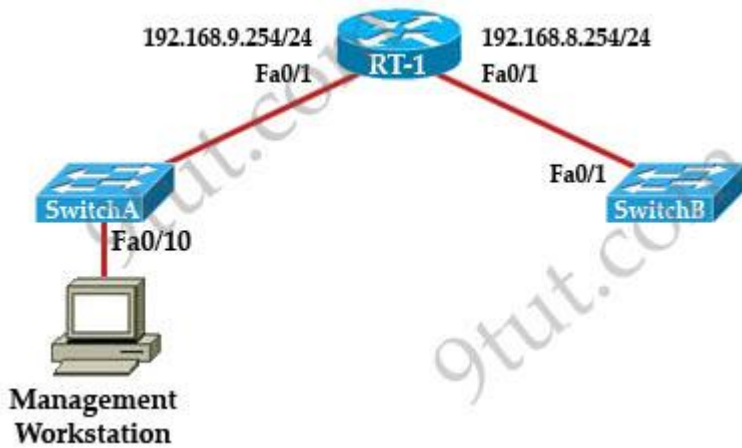
A technician has installed SwitchB and needs to configure it for remote access from the management workstation connected SwitchA. Which set of commands is required to accomplish this task?

A.
SwitchB(config)#interface FastEthernet 0/1
SwitchB(config-if)#ip address 192.168.8.252 255.255.255.0
SwitchB(config-if)#no shutdown

B.
SwitchB(config)#ip default-gateway 192.168.8.254
SwitchB(config)#interface vlan 1
SwitchB(config-if)#ip address 192.168.8.252 255.255.255.0
SwitchB(config-if)#no shutdown

C.
SwitchB(config)#interface vlan 1
SwitchB(config-if)#ip address 192.168.8.252 255.255.255.0
SwitchB(config-if)#ip default-gateway 192.168.8.254 255.255.255.0
SwitchB(config-if)#no shutdown

D.
SwitchB(config)#ip default-network 192.168.8.254
SwitchB(config)#interface vlan 1
SwitchB(config-if)#ip address 192.168.8.252 255.255.255.0
SwitchB(config-if)#no shutdown

Answer: B

Question 14

Which three statements accurately describe layer 2 Ethernet switches? (choose three)

A. Microsegmentation decreases the number of collisions on the network.
B. If a switch receives a frame for an unknown destination, it uses ARP to resolve the address.
C. Spanning Tree Protocol allows switches to automatically share vlan information.

D. In a property functioning network with redundant switched paths, each switched segment will contain one root bridge with all its ports in the forwarding state. All other switches in that broadcast domain will have only one root port.

E. Establishing vlans increases the number of broadcast domains.

F. Switches that are configured with vlans make forwarding decisions based on both layer 2 and layer 3 address information.

Answer: A D E

Question 15

Refer to the exhibit. Give this output for SwitchC, what should the network administrator's next action be?
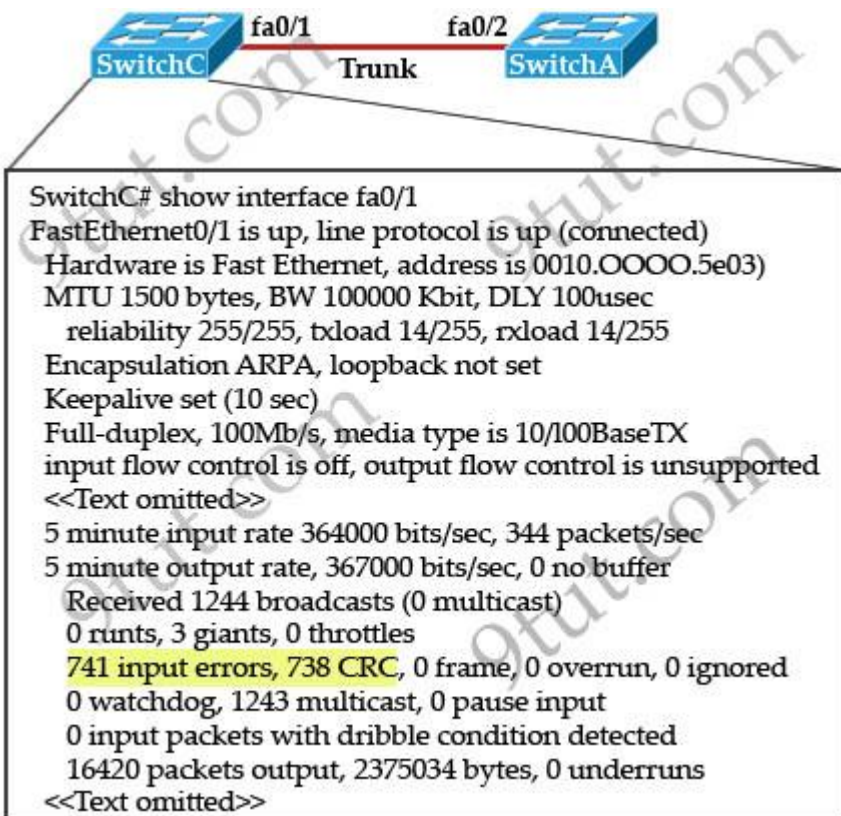
A. Check the trunk encapsulation mode for SwitchC's fa0/1 port.
B. Check the duplex mode for SwitchC's fa0/1 port.
C. Check the duplex mode for SwitchA's fa0/2 port.
D. Check the trunk encapsulation mode for SwitchA's fa0/2 port.

Answer: C

Question 16

Refer to the exhibit.

```
Switch-1# show mac address-table
Dynamic Addresses Count:                    3
Secure Addresses (User-defined) Count:      0
Static Addresses (User-defined) Count:      0
System Self Addresses Count:                41
Total Mac addresses:                        50
Non-static Address Table:
Destination Address  Address Type  VLAN  Destination Port
-------------------  ------------  ----  ----------------
0010.0de0.e289       Dynamic       1     FastEthernet0/1
0010.7b00.1540       Dynamic       2     FastEthernet0/3
0010.7b00.1545       Dynamic       2     FastEthernet0/2
```

Switch-1 needs to send data to a host with a MAC address of 00b0.d056.efa4. What will Switch-1 do with this data?

A. Switch-1 will drop the data because it does not have an entry for that MAC address.
B. Switch-1 will forward the data to its default gateway.
C. Switch-1 will flood the data out all of its ports except the port from which the data originated.
D. Switch-1 will send an ARP request out all its ports except the port from which the data originated.

Answer: C

VLAN Questions

Question 1

What are three benefits of implementing VLANs? (Choose three)

A. A more efficient use of bandwidth can be achieved allowing many physical groups to use the same network infrastructure.
B. A higher level of network security can be reached by separating sensitive data traffic from other network traffic.
C. Broadcast storms can be mitigated by increasing the number of broadcast domains, thus reducing their size.
D. A more efficient use of bandwidth can be achieved allowing many logical networks to use the same network infrastructure.
E. Port-based VLANs increase switch-port use efficiency, thanks to 802.1 Q trunks.
F. VLANs make it easier for IT staff to configure new logical groups, because the VLANs all belong to the same broadcast domain. Broadcast storms can be mitigated by decreasing the number of broadcast domains, thus increasing their size.

Answer: B C D

Question 2

Which command can you enter to view the ports that are assigned to VLAN 20?

A. Switch#show ip interface brief
B. Switch#show interface vlan 20
C. Switch#show ip interface vlan 20
D. Switch#show vlan id 20

Answer: D

Question 3

What are three advantages of VLANs? (Choose three)

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

Answer: A D F

Question 4

Which command sequence can you enter to create VLAN 20 and assign it to an interface on a switch?

A. Switch(config)#vlan 20
Switch(config)#interface gig x/y
Switch(config-if)#switchport access vlan 20

B. Switch(config)#interface gig x/y
Switch(config-if)#vlan 20
Switch(config-vlan)#switchport access vlan 20

C. Switch(config)#vlan 20
Switch(config)#interface vlan 20
Switch(config-if)#switchport trunk native vlan 20

D. Switch(config)#vlan 20
Switch(config)#interface vlan 20
Switch(config-if)#switchport access vlan 20
E. Switch(config)#vlan 20
Switch(config)#interface vlan 20
Switch(config-if)#switchport trunk allowed vlan 20

Answer: A

Question 5

Which two circumstances can cause collision domain issues on VLAN domain? (Choose two)

A. duplex mismatches on Ethernet segments in the same VLAN
B. multiple errors on switchport interfaces
C. congestion on the switch inband path
D. a failing NIC in an end device
E. an overloaded shared segment

Answer: A C

Question 6

What is the default VLAN on an access port?

A. 0
B. 1
C. 10
D. 1024

Answer: B

Question 7

Which statement about native VLAN traffic is true?

A. Cisco Discovery Protocol traffic travels on the native VLAN by default
B. Traffic on the native VLAN is tagged with 1 by default
C. Control plane traffic is blocked on the native VLAN.
D. The native VLAN is typically disabled for security reasons

Answer: A

Question 8

Refer to the exhibit. Which statement describes the effect of this configuration?

```
Router#configure terminal
Router(config)#vlan 10
Router(config-vlan)#do show vlan
```

A. The VLAN 10 VTP configuration is displayed.
B. VLAN 10 spanning-tree output is displayed.

C. The VLAN 10 configuration is saved when the router exits VLAN configuration mode.
D. VLAN 10 is added to the VLAN database.

Answer: C

Question 9

Which method does a connected trunk port use to tag VLAN traffic?

A. IEEE 802.1w
B. IEEE 802.1D
C. IEEE 802.1Q
D. IEEE 802.1p

Answer: C

Question 10

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

Question 11

Which feature facilitate the tagging of a specific VLAN?

A. Routing
B. Hairpinning
C. Encapsulation
D. Switching

Answer: C

Trunking Questions

http://www.9tut.com/trunking-questions

Question 1

Which command can you enter to determine whether a switch is operating in trunking mode?

A. show vlan
B. show ip interface brief
C. show interfaces
D. show interface switchport

Answer: D

Question 2

Which two commands can be used to verify a trunk link configuration status on a Cisco switch? (choose two)

A. show interfaces trunk
B. show interfaces switchport
C. show ip interface brief
D. show interfaces vlan

Answer: A B

Question 3

Refer to the exhibit:

```
ALSwitch1# show interfaces fastethernet0/24 switchport
Name: Fa0/24
Switchport: Enabled
Administrative Mode: static access
Operational Mode: static access
Administrative Trunking Encapsulation: dot1q
Operatfonal Trunking Encapsulation: native
Negotiation of Trunking: Off
Access Mode VLAN1 (default)
Trunking Native Mode VLAN: 1 (default)
Voice VLAN: none
Administrative private-vlan host-association: none
Administrative private-vlan mapping: none
Operafional private-vlan: none
Trunking VLANs Enabled: ALL
Pruning VLANs Enabled: 2-1001
Capture Mode Disabled
Capture VLANs Allowed: ALL

Protected: false

Voice VLAN: none (Inactive)
Appliance trust: none
```

Switch port FastEthernet 0/24 on AlSwitch1 will be used to create an IEEE 802.1Q-complaint trunk to another switch. Based on the output shown, What is the reason the trunk does not form, even thought the proper cabling has been attached?

A. VLANs have not been created yet.
B. An IP address must be configured for the port.
C. The port is currently configured for access mode.
D. The correct encapsulation type has not been configured.
E. The no shutdown command has not been entered for the port.

Answer: C

Question 4

Which two of these are characteristics of the 802.1Q protocol? (Choose two)

A. It is a layer 2 messaging protocol which maintains vlan configurations across network.
B. It includes an 8-bit field which specifies the priority of a frame.
C. It is used exclusively for tagging vlan frames and does not address network reconvergence following switched network topology changes.
D. It modifies the 802.3 frame header and thus requires that the FCS be recomputed.
E. It is a trunking protocol capable of earring untagged frames.

Answer: D E

Question 5

How to create a trunk port and allow VLAN 20? (Choose three)

A. switchport trunk encapsulation dot1q
B. switchport mode trunk
C. switchport trunk allowed vlan 20
D. switchport trunk native vlan 20
E. ?

Answer: A B C

Question 6

Which mode is compatible with Trunk, Access, and desirable ports?

A. Trunk Ports
B. Access Ports
C. Dynamic Auto
D. Dynamic Desirable

Answer: C (?)

Question 7

What field is consist of 6 bytes in the field identification frame in IEEE 802.1Q?

A. SA
B. DA
C. FCS
D. other

Answer: A

Question 8

Which statement about DTP is true?

A. It uses the native VLAN.
B. It negotiates a trunk link after VTP has been configured.
C. It uses desirable mode by default.
D. It sends data on VLAN 1.

Answer: D

Question 9

How can you disable DTP on a switch port?

A. Configure the switch port as a trunk.
B. Add an interface on the switch to a channel group.
C. Change the operational mode to static access.
D. Change the administrative mode to access.

Answer: A (no correct answer, in fact)

Question 10

What is true about DTP? (Choose three)

A. Layer 2 protocol
B. Layer 3 protocol
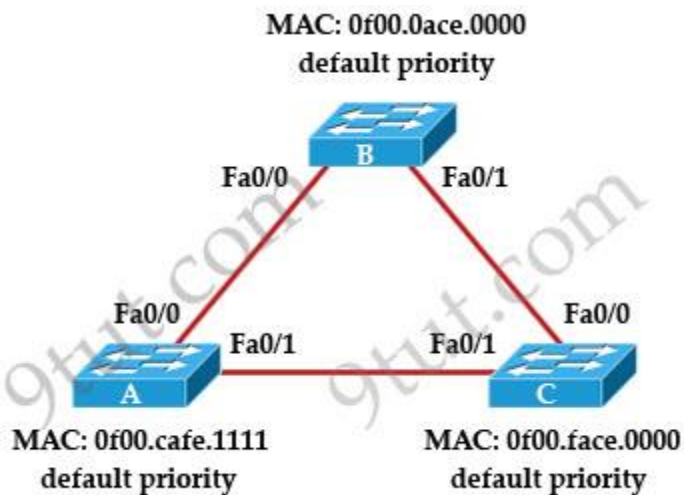C. Proprietary protocol
D. enabled by default
E. disabled by default

Answer: A C D

STP Questions

http://www.9tut.com/stp-questions

Question 1

Refer to the topology shown in the exhibit. Which ports will be STP designated ports if all the links are operating at the same bandwidth? (Choose three)

MAC: 0f00.0ace.0000
default priority

Fa0/0   B   Fa0/1

Fa0/0   Fa0/0
     Fa0/1   Fa0/1

A   C

MAC: 0f00.cafe.1111   MAC: 0f00.face.0000
default priority   default priority

A. Switch A – Fa0/0
B. Switch A – Fa0/1
C. Switch B – Fa0/0
D. Switch B – Fa0/1
E. Switch C – Fa0/0
F. Switch C – Fa0/1

Answer: B C D

Question 2

If the primary root bridge experiences a power loss, which switch takes over?

A. switch 0040.0BC0.90C5
B. switch 00E0.F90B.6BE3
C. switch 0004.9A1A.C182
D. switch 00E0.F726.3DC6

Answer: C

Question 3

Refer to the topology shown in the exhibit. Which ports will be STP designated ports if all the links are operating at the same bandwidth? (Choose three)

MAC: 0f00.0ace.0000
default priority

Fa0/0   Fa0/1

Fa0/0   Fa0/0
        Fa0/1   Fa0/1

MAC: 0f00.cafe.1111   MAC: 0f00.face.0000
default priority   default priority
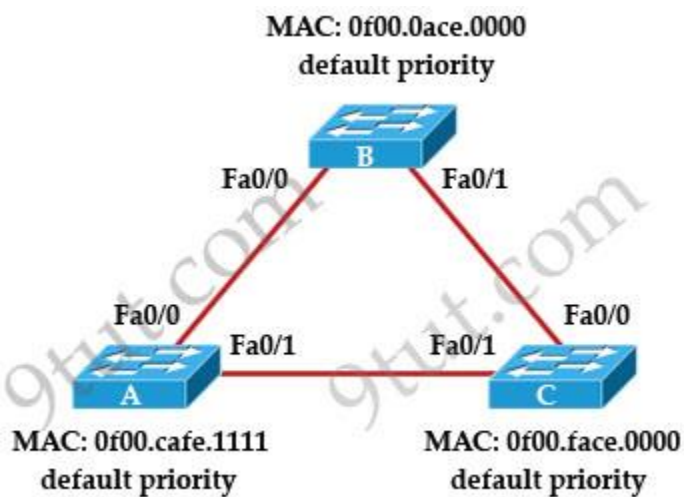
A. Switch A – Fa0/0
B. Switch A – Fa0/1
C. Switch B – Fa0/0
D. Switch B – Fa0/1
E. Switch C – Fa0/0
F. Switch C – Fa0/1

Answer: B C D

Question 4

If primary and secondary root switches with priority 16384 both experience catastrophic losses, which tertiary switch can take over?

A. a switch with priority 20480
B. a switch with priority 8192
C. a switch with priority 4096
D. a switch with priority 12288

Answer: A

Question 5

Which spanning-tree protocol rides on top of another spanning-tree protocol?

A. MSTP
B. RSTP
C. PVST+
D. Mono Spanning Tree

Answer: A

Question 6

Which IEEE standard does PVST+ use to tunnel information?

A. 802.1x
B. 802.1q
C. 802.1w
D. 802.1s

Answer: B

Question 7

Which process is associated with spanning-tree convergence?

A. determining the path cost
B. electing designated ports
C. learning the sender bridge ID
D. assigning the port ID

Answer: B

Question 8

Which option describes how a switch in rapid PVST+ mode responds to a topology change?

A. It immediately deletes dynamic MAC addresses that were learned by all ports on the switch.
B. It sets a timer to delete all MAC addresses that were learned dynamically by ports in the same STP instance.
C. It sets a timer to delete dynamic MAC addresses that were learned by all ports on the switch.
D. It immediately deletes all MAC addresses that were learned dynamically by ports in the same STP instance.

Answer: B

Question 9

Refer to the exhibit. The output that is shown is generated at a switch. Which three of these statements are true? (Choose three)

```
Switch# show spanning-tree vlan 30
VLAN0030
Spanning tree enabled protocol rstp
Root ID Priority 24606
Address 00d0.047b.2800
This bridge is the root
Hello Time 2 sec Max Age 20 sec Forward Delay 15 sec
Bridge ID Priority 24606 (priority 24576 sys-id-ext 30)
Address 00d0.047b.2800
Hello Time 2 sec Max Age 20 sec Forward Delay 15 sec
Aging Time 300
Interface      Role  Sts   Cost   Prio.Nbr    Type
----------     ----- ----  ----   --------    ----- ----------
Fa1/1          Desg FWD    4      128.1       p2p
Fa1/2          Desg FWD    4      128.2       p2p
Fa5/1          Desg FWD    4      128.257     p2p
```

A. All ports will be in a state of discarding, learning or forwarding.
B. Thirty VLANs have been configured on this switch.
C. The bridge priority is lower than the default value for spanning tree.
D. All interfaces that are shown are on shared media.
E. All designated ports are in a forwarding state.
F. The switch must be the root bridge for all VLANs on this switch.

Answer: A C E

Question 10

Refer to the topology shown in the exhibit. Which ports will be STP designated ports if all the links are operating at the same bandwidth? (Choose three)

MAC: 0f00.0ace.0000
default priority

Fa0/0   B   Fa0/1

Fa0/0   Fa0/0
Fa0/1   Fa0/1

A   C

MAC: 0f00.cafe.1111   MAC: 0f00.face.0000
default priority   default priority
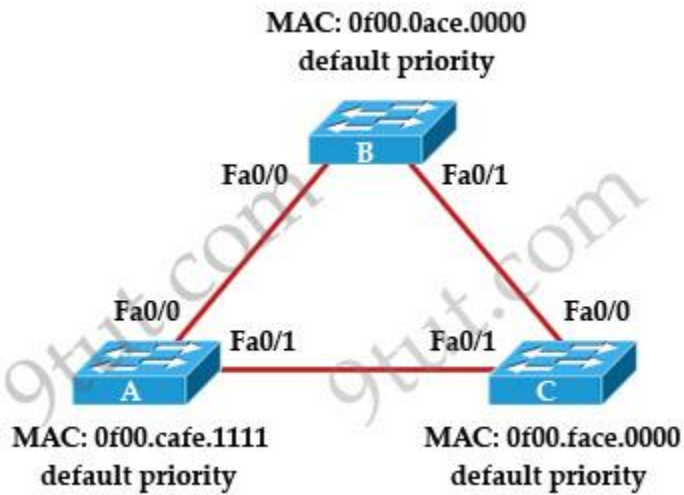
A. Switch A – Fa0/0
B. Switch A – Fa0/1
C. Switch B – Fa0/0
D. Switch B – Fa0/1
E. Switch C – Fa0/0
F. Switch C – Fa0/1

Answer: B C D

Question 11

When an interface is configured with PortFast BPDU guard, how does the interface respond when it receives a BPDU?

A. It continues operating normally.
B. It goes into an errdisable state.
C. It goes into a down/down state.
D. It becomes the root bridge for the configured VLAN.

Answer: B

Question 12

Which spanning-tree feature places a port immediately into a forwarding stated?

A. BPDU guard
B. PortFast
C. loop guard
D. UDLD
E. Uplink Fast

Answer: B

RSTP Questions

Question 1

Which two spanning-tree port states does RSTP combine to allow faster convergence? (Choose two)

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

Answer: B C

Question 2

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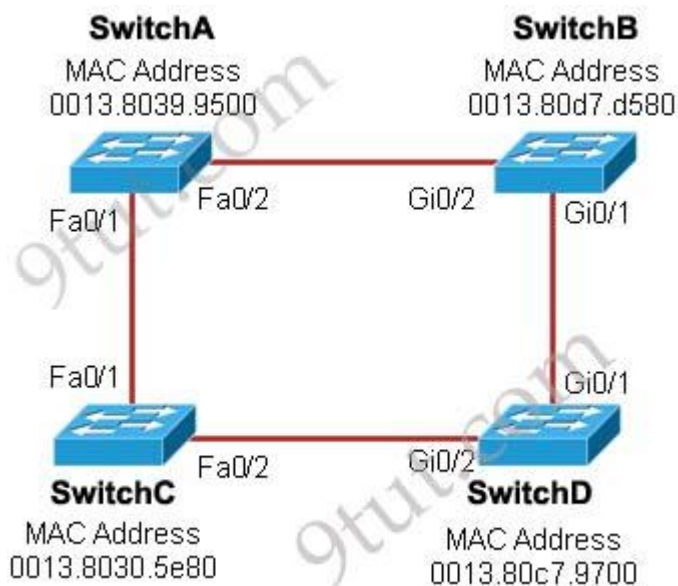
A. SwitchA, Fa0/2, designated
B. SwitchA, Fa0/1, root
C. SwitchB, Gi0/2, root
D. SwitchB, Gi0/1, designated
E. SwitchC, Fa0/2, root
F. SwitchD, Gi0/2, root

Answer: A B F

Question 3

Which two switch states are valid for 802.1w? (Choose two)

A. listening
B. backup
C. disabled
D. learning
E. discarding

Answer: D E

Question 4

Which two states are the port states when RSTP has converged? (choose two)

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

Answer: A D

Question 5

Which three statements about RSTP are true? (choose three)

A. RSTP significantly reduces topology reconverging time after a link failure.
B. RSTP expends the STP port roles by adding the alternate and backup roles.
C. RSTP port states are blocking, discarding, learning, or forwarding.
D. RSTP also uses the STP proposal-agreement sequence.
E. RSTP use the same timer-based process as STP on point-to-point links.
F. RSTP provides a faster transition to the forwarding state on point-to-point links than STP does.

Answer: A B F

VTP Questions

Question 1

Which protocol supports sharing the VLAN configuration between two or more switches?

A. multicast
B. STP
C. VTP
D. split-horizon

Answer: C

Question 2

How to enable VLANs automatically across multiple switches?

A. Configure VLAN
B. Confiture NTP
C. Configure each VLAN
D. Configure VTP

Answer: D

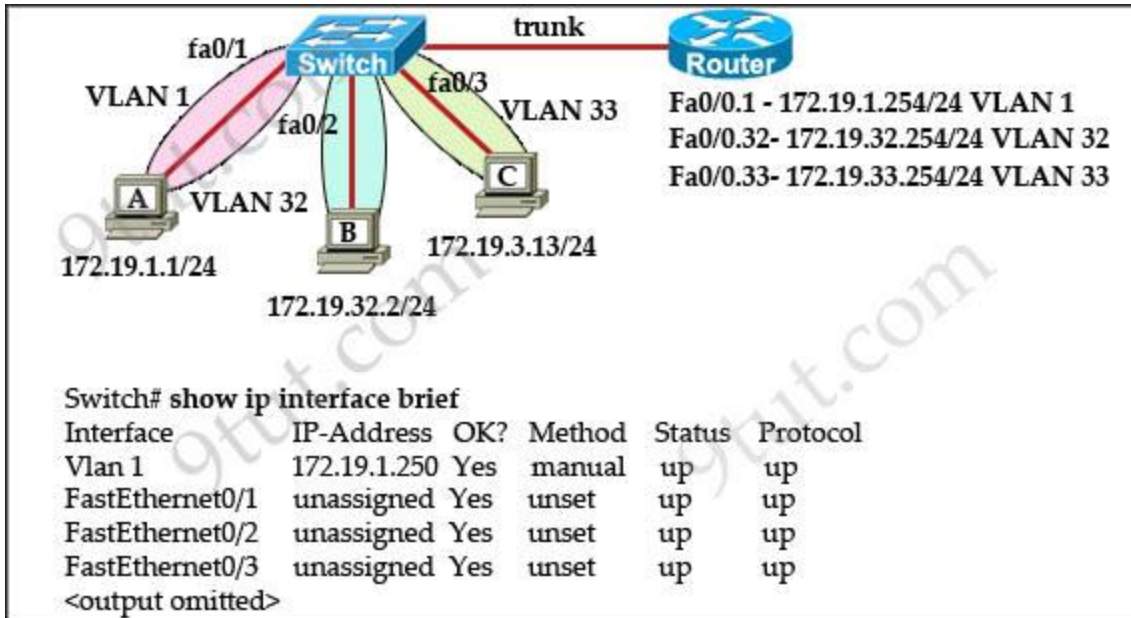# Port Security Questions

Question 1

A network administrator needs to configure port security on a switch. Which two statements are true? (Choose two)

A. The network administrator can apply port security to dynamic access ports
B. The network administrator can configure static secure or sticky secure mac addresses in the voice vlan.
C. The sticky learning feature allows the addition of dynamically learned addresses to the running configuration.
D. The network administrator can apply port security to EtherChannels.
E. When dynamic mac address learning is enabled on an interface, the switch can learn new addresses up to the maximum defined.

Answer: C E

Question 2

The network administrator normally establishes a Telnet session with the switch from host A. The administrator's attempt to establish a connect via Telnet to the switch from host B fails, but pings from host B to other two hosts are successful. What is the issue for this problem?

```
Switch# show ip interface brief
Interface       IP-Address   OK?  Method  Status  Protocol
Vlan 1          172.19.1.250 Yes  manual  up      up
FastEthernet0/1 unassigned   Yes  unset   up      up
FastEthernet0/2 unassigned   Yes  unset   up      up
FastEthernet0/3 unassigned   Yes  unset   up      up
<output omitted>
```

A. Host B and the switch need to be in the same subnet.
B. The switch needs an appropriate default gateway assigned.
C. The switch interface connected to the router is down.
D. Host B need to be assigned an IP address in vlan 1.

Answer: B

Question 3

Which option is the default switch port port-security violation mode?

A. shutdown
B. protect
C. shutdown vlan
D. restrict

Answer: A

Question 4

By default, how many MAC addresses are permitted to be learned on a switch port with port security enabled?

A. 8
B. 2
C. 1
D. 0

Answer: C

Question 5

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

Question 6

Select the action that results from executing these commands:

Switch(config-if)# switchport port-security
Switch(config-if)# switchport port-security mac-address sticky

A. A dynamically learned MAC address is saved in the startup-configuration file.
B. A dynamically learned MAC address is saved in the running-configuration file.
C. A dynamically learned MAC address is saved in the VLAN database.
D. Statically configured MAC addresses are saved in the startup-configuration file if frames from that address are received.
E. Statically configured MAC addresses are saved in the running-configuration file if frames from that address are received.

Answer: B

Question 7

Refer to the exhibit. The following commands are executed on interface fa0/1 of 2950Switch.

2950Switch(config-if)#switchport port-security
2950Switch(config-if)#switchport port-security mac-address sticky
2950Switch(config-if)#switchport port-security maximum 1

The Ethernet frame that is shown arrives on interface fa0/1. What two functions will occur when this frame is received by 2950Switch? (Choose two)

MAC Address Table
Fa0/2 0000.00bb.bbbb
Fa0/3 0000.00cc.cccc

0000.00aa.aaaa

fa0/2   2950Switch   fa0/1

B
0000.00bb.bbbb

fa0/3

C
0000.00cc.cccc

A

ETHERNET FRAME

FFFF.FFFF.FFFF | 0000.00AA.AAAA | Data
Destination MAC | Source MAC
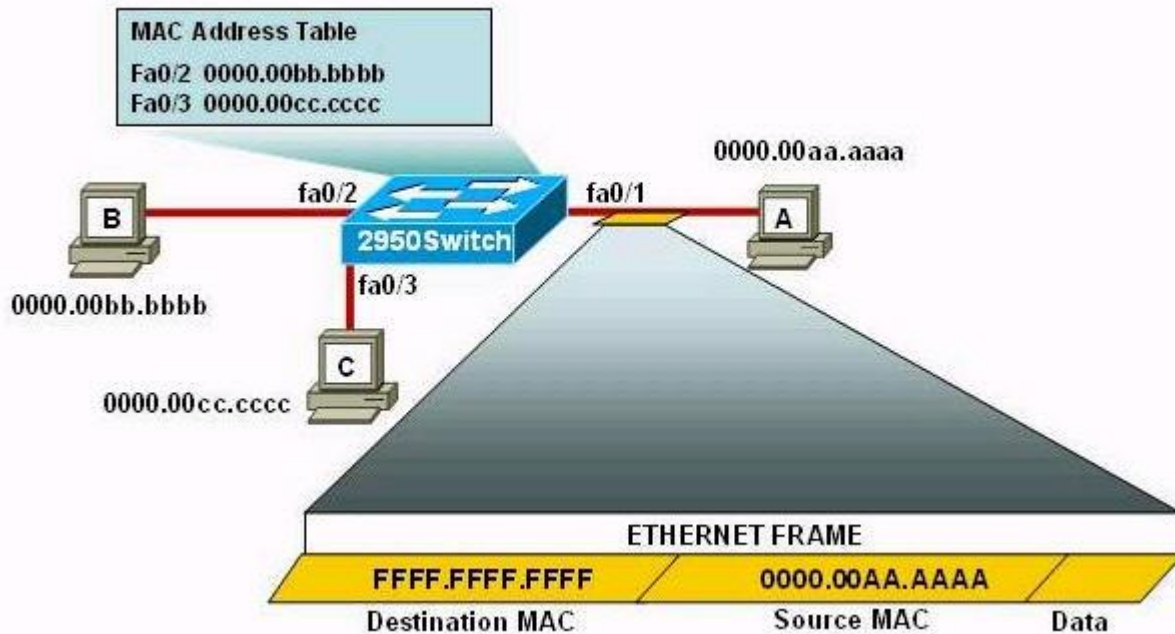
A. The MAC address table will now have an additional entry of fa0/1 FFFF.FFFF.FFFF.

B. Only host A will be allowed to transmit frames on fa0/1.

C. This frame will be discarded when it is received by 2950Switch.

D. All frames arriving on 2950Switch with a destination of 0000.00aa.aaaa will be forwarded out fa0/1.

E. Hosts B and C may forward frames out fa0/1 but frames arriving from other switches will not be forwarded out fa0/1.

F. Only frames from source 0000.00bb.bbbb, the first learned MAC address of 2950Switch, will be forwarded out fa0/1.

Answer: B D

Question 8

Which two commands correctly verify whether port security has been configured on port FastEthernet 0/12 on a switch? (Choose two)

A. SW1# show switchport port-security interface FastEthernet 0/12
B. SW1# show switchport port-secure interface FastEthernet 0/12
C. SW1# show port-security interface FastEthernet 0/12
D. SW1# show running-config

Answer: C D

Question 9

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.

```
SwitchA# show port-security interface fa0/1
Port Security              : Disabled
Port Status                : Secure-down
Violation Mode             : Restrict
Aging Time                 : 0 mins
Aging Type                 : Absolute
SecureStatic Address Aging : Disabled
Maximum MAC Addresses      : 2
Total MAC Addresses        : 0
Configured MAC Addresses   : 0
Sticky MAC Addresses       : 0
Last Source Address:Vlan   : 0000.0000.0000:0
Security Violation Count   : 0

SwitchA# show running-config interface fa0/1
Building configuration...

Current configuration : 209 bytes
!
interface FastEthernet0/1
 switchport access vlan 3
 switchport mode access
 switchport port-security maximum 2
 switchport port-security violation restrict
 switchport port-security mac-address sticky
end
```

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

A. Port security needs to be globally enabled.
B. Port security needs to be enabled on the interface.
C. Port security needs to be configured to shut down the interface in the event of a violation.
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

SPAN Questions

http://www.9tut.com/span-questions

Question 1

Which feature can you use to monitor traffic on a switch by replicating it to another port or ports on the same switch?

A. copy run start
B. traceroute
C. the ICMP Echo IP SLA
D. SPAN

Answer: D

EtherChannel Questions

Question 1

Refer to the exhibit. While troubleshooting a switch, you executed the "show interface port-channel 1 etherchannel" command and it returned this output. Which information is provided by the Load value?

```
Index   Load    Port    EC state            No of bits
-----+-------+------+-----------------+----------
0       36      Gi1/1   Active              3
1       84      Gi1/2   Active              3
2       16      Gi1/3   Active              2
```

A. the percentage of use of the link
B. the preference of the link
C. the session count of the link
D. the number source-destination pairs on the link

Answer: D

Question 2

What is the status of port-channel if LACP is misconfigured?

A. Forwarding
B. Enabled
C. Disabled
D. Errdisabled

Answer: C

Question 3

What parameter can be different on ports within an EtherChannel?

A. speed
B. DTP negotiation settings
C. trunk encapsulation
D. duplex

Answer: B

Question 4

Standard industrialized protocol of Etherchannel?

A. LACP
B. PAGP
C. PRP
D. REP

Answer: A

InterVLAN Routing

http://www.9tut.com/intervlan-routing

Question 1

Which type of device can be replaced by the use of subinterfaces for VLAN routing?

A. Layer 2 bridge
B. Layer 2 switch
C. Layer 3 switch
D. router

Answer: C

Question 2

Which technology can enable multiple VLANs to communicate with one another?

A. inter-VLAN routing using a Layer 3 switch
B. inter-VLAN routing using a Layer 2 switch
C. intra-VLAN routing using router on a stick
D. intra-VLAN routing using a Layer 3 switch

Answer: A

Question 3

Which configuration can you apply to enable encapsulation on a subinterface?

A. interface FastEthernet 0/0
encapsulation dot1Q 30
ip address 10.1.1.30 255.255.255.0

B. interface FastEthernet 0/0.30
ip address 10.1.1.30 255.255.255.0

C. interface FastEthernet 0/0.30
description subinterface vlan 30

D. interface FastEthernet 0/0.30
encapsulation dot1Q 30
ip address 10.1.1.30 255.255.255.0

Answer: D

Question 4

Which statement about slow inter VLAN forwarding is true?

A. The VLAN is experiencing slowness in the point-to-point collisionless connection.
B. The VLANs are experiencing slowness because multiple devices are connected to the same hub.
C. The local VLAN is working normally, but traffic to the alternate VLAN is forwarded slower than expected.
D. The entire VLAN is experiencing slowness.
E. The VLANs are experiencing slowness due to a duplex mismatch.

Answer: E

Question 5

Which function enables an administrator to route multiple VLANs on a router?

A. IEEE 802 1X
B. HSRP
C. port channel
D. router on a stick

Answer: D

Question 6

Which statement about a router on a stick is true?

A. Its date plane router traffic for a single Vl AN over two or more switches.
B. It uses multiple subinterfaces of a single interface to encapsulate traffic for different VLANs on the same subnet.
C. It requires the native VLAN to be disabled.
D. It uses multiple subinterfaces of a single interface to encapsulate traffic for different VLANs.

Answer: D

Router Questions

Question 1

Which step in the router boot process searches for an IOS image to load into the router?

A. bootstrap
B. POST
C. mini-IOS
D. ROMMON mode

Answer: A

Question 2

If a router has four interfaces and each interface is connected to four switches, how many broadcast domains are present on the router?

A. 1
B. 2
C. 4
D. 8

Answer: C

Question 3

What is the purpose of the POST operation on a router?

A. determine whether additional hardware has been added
B. locate an IOS image for booting
C. enable a TFTP server
D. set the configuration register

Answer: A

Question 4

Which command can you execute to set the user inactivity timer to 10 seconds?

A. SW1(config-line)#exec-timeout 0 10
B. SW1(config-line)#exec-timeout 10
C. SW1(config-line)#absolute-timeout 0 10
D. SW1(config-line)#absolute-timeout 10

Answer: A

Question 5

After you configure the Loopback0 interface, which command can you enter to verify the status of the interface and determine whether fast switching is enabled?

A. Router#show ip interface loopback 0
B. Router#show run
C. Router#show interface loopback 0
D. Router#show ip interface brief

Answer: A

Question 6

A Cisco router is booting and has just completed the POST process. It is now ready to find and load an IOS image. What function does the router perform next?

A. It checks the configuration register
B. It attempts to boot from a TFTP server
C. It loads the first image file in flash memory
D. It inspects the configuration file in NVRAM for boot instructions

Answer: A

Question 7

Which command is used to show the interface status of a router?

A. show interface status
B. show ip interface brief
C. show ip route
D. show interface

Answer: B

Question 8

Which of the following privilege level is the most secured?

A. Level 0
B. Level 1
C. Level 15
D. Level 16

Answer: C

Question 9

What to do when the router password was forgotten?

A. use default password cisco to reset
B. access router physically
C. use ssl/vpn
D. Type confreg 0x2142 at the rommon 1

Answer: D

Question 10

How do you configure a hostname?

A. Router(config)#hostname R1
B. Router#hostname R1
C. Router(config)#host name R1
D. Router>hostname R1

Answer: A

Question 11

Which two Cisco IOS commands, used in troubleshooting, can enable debug output to a remote location? (Choose two)

A. no logging console
B. logging host ip-address
C. terminal monitor
D. show logging | redirect flashioutput.txt
E. snmp-server enable traps syslog

Answer: B C

Access list Questions

Question 1

Which identification number is valid for an extended ACL?

A. 1
B. 64
C. 99
D. 100
E. 299
F. 1099

Answer: D

Question 2

Which statement about named ACLs is true?

A. They support standard and extended ACLs.
B. They are used to filter usernames and passwords for Telnet and SSH.
C. They are used to filter Layer 7 traffic.
D. They support standard ACLs only.
E. They are used to rate limit traffic destined to targeted networks.

Answer: A

Question 3

Which range represents the standard access list?

A. 99
B. 150
C. 299
D. 2000

Answer: A

Question 4

A network engineer wants to allow a temporary entry for a remote user with a specific username and password so that the user can access the entire network over the internet. Which ACL can be used?

A. reflexive
B. extended
C. standard
D. dynamic

Answer: D

Question 5

Which statement about ACLs is true?

A. An ACL have must at least one permit action, else it just blocks all traffic.
B. ACLs go bottom-up through the entries looking for a match
C. An ACL has a an implicit permit at the end of ACL.
D. ACLs will check the packet against all entries looking for a match.

Answer: A

IP Routing

http://www.9tut.com/ip-routing

Question 1

A router has learned three possible routes that could be used to reach a destination network. One route is from EIGRP and has a composite metric of 20514560. Another route is from OSPF with a metric of 782. The last is from RIPv2 and has a metric of 4. Which route or routes will the router install in the routing table?

A. the RIPv2 route
B. all three routes
C. the OSPF and RIPv2 routes
D. the OSPF route
E. the EIGRP route

Answer: E

Question 2

Which command can you enter to route all traffic that is destined for 192.168.0.0/20 to a specific interface?

A. router(config)#ip route 192.168.0.0 255.255.240.0 GigabitEthernet0/1
B. router(config)#ip route 0.0.0.0 255.255.255.0 GigabitEthernet0/1
C. router(config)#ip route 0.0.0.0 0.0.0.0 GigabitEthernet0/1
D. router(config)#ip route 192.168.0.0 255.255.255.0 GigabitEthernet0/1

Answer: A

Question 3

Which command can you enter to set the default route for all traffic to an interface?

A. router(config)#ip route 0.0.0.0 0.0.0.0 GigabitEthernet0/1
B. router(config)#ip route 0.0.0.0 255.255.255.255 GigabitEthernet0/1
C. router(config-router)#default-information originate
D. router(config-router)#default-information originate always

Answer: A

Question 4

Which three statements about static routing are true? (Choose three)

A. It uses consistent route determination.
B. It is best used for small-scale deployments.
C. Routing is disrupted when links fail.
D. It requires more resources than other routing methods.
E. It is best used for large-scale deployments.
F. Routers can use update messages to reroute when links fail.

Answer: A B C

Question 5

If host Z needs to send data through router R1 to a storage server, which destination MAC address does host Z use to transmit packets?

A. the host Z MAC address
B. the MAC address of the interface on R1 that connects to the storage server
C. the MAC address of the interface on R1 that connects to host Z
D. the MAC address of the storage server interface

Answer: C

Question 6

Which routing protocol has the smallest default administrative distance?

A. IBGP
B. OSPF
C. IS-IS
D. EIGRP
E. RIP

Answer: D

Question 7

Which statement about static routes is true?

A. The source interface can be configured to make routing decisions.
B. A subnet mask is entered for the next-hop address.
C. The subnet mask is 255.255 255.0 by default
D. The exit interface can be specified to indicate where the packets will be routed.

Answer: D

Question 8

Which component of a routing table entry represents the subnet mask?

A. routing protocol code
B. prefix
C. metric
D. network mask

Answer: D

Question 9

When a router makes a routing decision for a packet that is received from one network and destined to another, which portion of the packet does if replace?

A. Layer 2 frame header and trailer
B. Layer 3 IP address
C. Layer 5 session
D. Layer 4 protocol

Answer: A

Question 10

Which statement about routing protocols is true?

A. Link-state routing protocols choose a path by the number of hops to the destination.
B. OSPF is a link-state routing protocol.
C. Distance-vector routing protocols use the Shortest Path First algorithm.
D. IS-IS is a distance-vector routing protocol.

Answer: B

Question 11

Which dynamic routing protocol uses only the hop count to determine the best path to a destination?

A. IGRP
B. RIP
C. EIGRP
D. OSPF

Answer: B

Question 12

Which value is indicated by the next hop in a routing table?

A. preference of the route source
B. IP address of the remote router for forwarding the packets
C. how the route was learned
D. exit interface IP address for forwarding the packets

Answer: B

Question 13

Which component of the routing table ranks routing protocols according to their preferences?

A. administrative distance
B. next hop
C. metric
D. routing protocol code

Answer: A

Question 14

Which route source code represents the routing protocol with a default administrative distance of 90 in the routing table?

A. S
B. E
C. D
D. R
E. O

Answer: C

Question 15

When enabled, which feature prevents routing protocols from sending hello messages on an interface?

A. virtual links
B. passive-interface
C. directed neighbors
D. OSPF areas

Answer: B

Subnetting Questions

Question 1

Refer to the exhibit. All of the routers in the network are configured with the ip subnet-zero command. Which network addresses should be used for Link A and Network A? (Choose two)
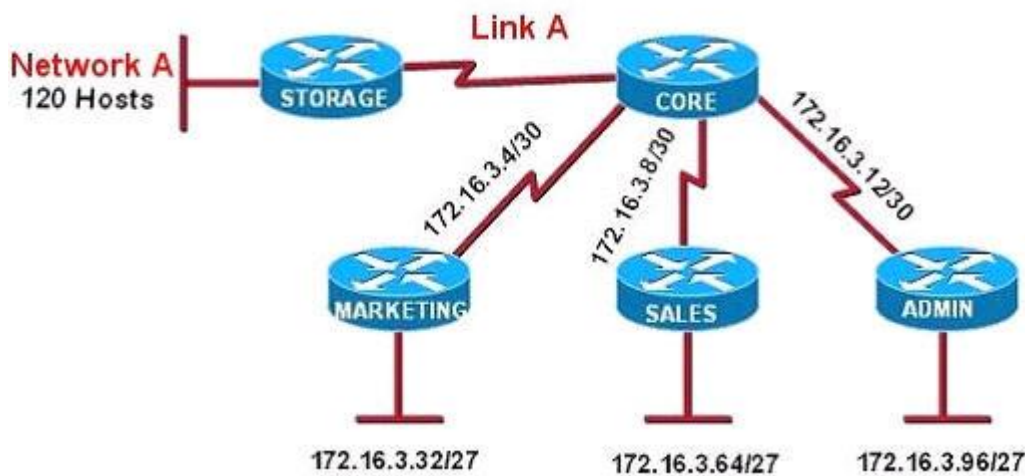
A. Network A – 172.16.3.48/26
B. Network A – 172.16.3.128/25
C. Network A – 172.16.3.192/26

D. Link A – 172.16.3.0/30
E. Link A – 172.16.3.40/30
F. Link A – 172.16.3.112/30

Answer: B D

Question 2

What is the correct routing match to reach 172.16.1.5/32?

A. 172.16.1.0/26
B. 172.16.1.0/25
C. 172.16.1.0/24
D. the default route

Answer: A

Question 3

You have been asked to come up with a subnet mask that will allow all three web servers to be on the same network while providing the maximum number of subnets. Which network address and subnet mask meet this requirement?

A. 192.168.252.0 255.255.255.252
B. 192.168.252.8 255.255.255.248
C. 192.168.252.8 255.255.255.252
D. 192.168.252.16 255.255.255.240
E. 192.168.252.16 255.255.255.252

Answer: B

RIP Questions

http://www.9tut.com/rip-questions

Question 1

How to configure RIPv2? (Choose two)

A. Enable RIP
B. Connect RIP to WAN interface
C. Enable auto-summary
D. Enable authentication

Answer: A ?

OSPF Questions

Question 1

Which three statements about link-state routing are true? (Choose three)

A. It uses split horizon.
B. Updates are sent to a broadcast address.
C. RIP is a link-state protocol.
D. Updates are sent to a multicast address by default.
E. Routes are updated when a change in topology occurs.
F. OSPF is a link-state protocol.

Answer: D E F

Question 2

Which three 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

Question 3

What are two drawbacks of implementing a link-state routing protocol? (Choose two)

A. the sequencing and acknowledgment of link-state packets
B. the high volume of link-state advertisements in a converged network
C. the requirement for a hierarchical IP addressing scheme for optimal functionality
D. the high demand on router resources to run the link-state routing algorithm
E. the large size of the topology table listing all advertised routes in the converged network

Answer: C D

Question 4

Refer to the exhibit. Router edge-1 is unable to establish OSPF neighbor adjacency with router ISP-1. Which two configuration changes can you make on edge-1 to allow the two routers to establish adjacency? (Choose two)

A. Set the subnet mask on edge-1 to 255 255.255.252.
B. Reduce the MTU on edge-1 to 1514.
C. Set the OSPF cost on edge-1 to 1522.
D. Reduce the MTU on edge-1 to 1500.
E. Configure the ip ospf mtu-ignore command on the edge-1 Gi0/0 interface.

Answer: D E

Question 5

A network administrator is troubleshooting the OSPF configuration of routers R1 and R2. The routers cannot establish an adjacency relationship on their common Ethernet link. The graphic shows the output of the show ip ospf interface e0 command for routers R1 and R2. Based on the information in the graphic, what is the cause of this problem?

A. The OSPF area is not configured properly.
B. The priority on R1 should be set higher.
C. The cost on R1 should be set higher.
D. The hello and dead timers are not configured properly.
E. A backup designated router needs to be added to the network.
F. The OSPF process ID numbers must match.

Answer: D

Question 6

What routing protocol use first-hand information?

A. link-state
B. distance-vector
C. path-vector
D. other

Answer: A

EIGRP Questions

Question 1

A network administrator is troubleshooting an EIGRP problem on a router and needs to confirm the IP addresses of the devices with which the router has established adjacency. The retransmit interval and the queue counts for the adjacent routers also need to be checked. What command will display the required information?

A. Router# show ip eigrp neighbors
B. Router# show ip eigrp interfaces
C. Router# show ip eigrp adjacency
D. Router# show ip eigrp topology

Answer: A

Question 2

Which option describes a difference between EIGRP for IPv4 and IPv6?

A. Only EIGRP for IPv6 advertises all connected networks.
B. Only EIGRP for IPv6 requires a router ID to be configured under the routing process
C. AS numbers are configured in EIGRP but not in EIGRPv3.
D. Only EIGRP for IPv6 is enabled in the global configuration mode.

Answer: B

Question 3

Which EIGRP for IPv6 command can you enter to view the link-local addresses of the neighbors of a device?

A. show ipv6 eigrp 20 interfaces
B. show ipv6 route eigrp
C. show ipv6 eigrp neighbors
D. show ip eigrp traffic

Answer: C

Question 4

Which function allows EIGRP peers to receive notice of implementing topology changes?

A. successors
B. advertised changes
C. goodbye messages
D. expiration of the hold timer

Answer: C

Question 5

What are the address that will show at the "show ip route" if we configure the above statements?
(Choose three)

```
router eigrp 100
network 172.15.4.0
network 10.4.3.0
network 192.168.4.0
auto-summary
```

A. 10.0.0.0
B. 10.4.3.0
C. 172.15.4.0
D. 172.15.0.0
E. 192.168.4.0
F. 192.168.0.0

Answer: A D E

Question 6

What does split horizon prevent?

A. routing loops, link state
B. routing loops, distance vector
C. switching loops, STP
D. switching loops, VTP

Answer: B

Question 7

What is called when variance with two times of metric?

A. unequal cost load balancing
B. path selection
C. equal cost load balancing
D. other

Answer: A

BGP Questions

Question 1

Which command can you enter to verify that a BGP connection to a remote device is established?

A. show ip bgp summary
B. show ip community-list
C. show ip bgp paths
D. show ip route

Answer: A

Question 2

Which two components are used to identify a neighbor in a BGP configuration? (Choose two)

A. autonomous system number
B. version number
C. router ID
D. subnet mask
E. IP address

Answer: A E

Question 3

interface fa0/0
ip address x.x.x.33 255.255.255.224

router bgp XXX
neighbor x.x.x.x remote as x.x.x.x

You need to advertise the network of int fa0/0. Which of the following would you type in the "network" command?

A. x.x.x.32 mask 255.255.255.224
B. x.x.x.32 255.255.255.224
C. x.x.x.32 mask 0.0.0.31
D. x.x.x.33 mask 255.255.255.224

Answer: A

IP SLA Questions

Question 1

Which function of the IP SLAs ICMP jitter operation can you use to determine whether a VoIP issue is caused by excessive end-to-end time?

A. round-trip time latency
B. packet loss
C. jitter
D. successive packet loss

Answer: A

Question 2

Which statement about the IP SLAs ICMP Echo operation is true?

A. The frequency of the operation specified in milliseconds.
B. It is used to identify the best source interface from which to send traffic.
C. It is configured in enable mode.
D. It is used to determine the frequency of ICMP packets.

Answer: D

Question 3

What IP SLA ICMP Echo measures?

A. Packet loss
B. Congestion

C. Hop-by-hop "something"
D. End-to-end response time
E. ?

Answer: D

NAT/PAT Questions

Question 1

Which technology allows a large number of private IP addresses to be represented by a smaller number of public IP addresses?

A. NAT
B. NTP
C. RFC 1631
D. RFC 1918

Answer: A

Question 2

What is the effect of the overload keyword in a static NAT translation configuration?

A. It enables port address translation.
B. It enables the use of a secondary pool of IP addresses when the first pool is depleted.
C. It enables the inside interface to receive traffic.
D. It enables the outside interface to forward traffic.

Answer: A

Question 3

Which two types of NAT addresses are used in a Cisco NAT device? (Choose two)

A. inside local
B. inside global
C. inside private
D. outside private
E. external global
F. external local

Answer: A B

Question 4

What is the danger of the permit any entry in a NAT access list?

A. It can lead to overloaded resources on the router.
B. It can cause too many addresses to be assigned to the same interface.
C. It can disable the overload command.
D. It prevents the correct translation of IP addresses on the inside network.

Answer: A

Question 5

Which type of address is the public IP address of a NAT device?

A. outside global
B. outside local
C. inside global
D. inside local
E. outside public
F. inside public

Answer: C

Question 6

Which command can you enter to display the hits counter for NAT traffic?

A. show ip nat statistics
B. debug ip nat
C. show ip debug nat
D. clear ip nat statistics

Answer: A

Question 7

Which NAT function can map multiple inside addresses to a single outside address?

A. PAT
B. SFTP
C. RARP
D. ARP
E. TFTP

Answer: A

Question 8

What is the first step in the NAT configuration process?

A. Define inside and outside interfaces.
B. Define public and private IP addresses.
C. Define IP address pools.
D. Define global and local interfaces.

Answer: A

Question 9

Under which circumstance should a network administrator implement one-way NAT?

A. when the network must route UDP traffic
B. when traffic that originates outside the network must be routed to internal hosts
C. when traffic that originates inside the network must be routed to internal hosts
D. when the network has few public IP addresses and many private IP addresses require outside access

Answer: B

Question 10

Which statement about the inside interface configuration in a NAT deployment is true?

A. It is defined globally
B. It identifies the location of source addresses for outgoing packets to be translated using access or route maps.
C. It must be configured if static NAT is used
D. It identifies the public IP address that traffic will use to reach the internet.

Answer: B

Question 11

Which NAT type is used to translate a single inside address to a single outside address?

A. dynamic NAT
B. NAT overload
C. PAT
D. static NAT

Answer: D

Question 12

What are two benefits of using NAT? (choose two)

A. NAT protects network security because private networks are not advertised.
B. NAT accelerates the routing process because no modifications are made on the packets.
C. Dynamic NAT facilitates connections from the outside of the network.
D. NAT facilitates end-to-end communication when IPsec is enable.
E. NAT eliminates the need to re-address all host that require external access.
F. NAT conserves addresses through host MAC-level multiplexing.

Answer: A E

HSRP Questions

Question 1

Which protocol advertises a virtual IP address to facilitate transparent failover of a Cisco routing device?

A. FHRP
B. DHCP
C. RSMLT
D. ESRP

Answer: A

Question 2

Which protocol is the Cisco proprietary implementation of FHRP?

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

Answer: A (in fact GLBP is also correct)

Question 3

Which standards-based First Hop Redundancy Protocol is a Cisco supported alternative to Hot Standby Router Protocol?

A. VRRP
B. GLBP
C. TFTP
D. DHCP

Answer: A

Question 4

What are two requirements for an HSRP group? (Choose two)

A. exactly one active router
B. one or more standby routers
C. one or more backup virtual routers
D. exactly one standby active router
E. exactly one backup virtual router

Answer: A B

Question 5

Which three options are the HSRP states for a router? (Choose three)

A. initialize
B. learn
C. secondary
D. listen
E. speak
F. primary

Answer: B D E

Question 6

Which standards-based First Hop Redundancy Protocol is a Cisco supported alternative to Hot Standby Router Protocol?

A. VRRP
B. GLBP
C. TFTP
D. DHCP

Answer: A

Question 7

Which value to use in HSRP protocol election process?

A. interface
B. virtual IP address
C. priority
D. router ID

Answer: C

Question 8

Which of the following is needed to be enable back the role of active in HSRP?

A. preempt
B. priority
C. other options
D. other options

Answer: A

Question 9

What is new in HSRPv2?

A. preempt
B. a greater number in hsrp group field
C. other
D. other

Answer: B

IPv6 Questions

http://www.9tut.com/ipv6-questions

Question 1

In which two formats can the IPv6 address fd15:0db8:0000:0000:0700:0003:400F:572B be written? (Choose two)

A. fd15:0db8:0000:0000:700:3:400F:527B
B. fd15:0db8::7:3:4F:527B
C. fd15::db8::700:3:400F:527B
D. fd15:db8::700:3:400F:572B
E. fd15:db8:0::700:3:4F:527B

Answer: A D

Question 2

Which statements about IPv6 prefixes are true?

A. FEC0::/10 is used for IPv6 broadcast.
B. FC00::/7 is used in private networks.
C. FE80::/8 is used for link-local unicast.
D. FE80::/10 is used for link-local unicast
E. 2001::1/127 is used for loopback addresses.
F. FF00::/8 is used for IPv6 multicast.

Answer: B D F

Question 3

Which statements about IPv6 and routing protocols are true? (Choose two)

A. EIGRPv3 was developed to support IPv6 routing.
B. OSPFv3 was developed to support IPv6 routing.
C. Loopback addresses are used to form routing adjacencies.
D. EIGRP, OSPF, and BGP are the only routing protocols that support IPv6.
E. Link-local addresses are used to form routing adjacencies.

Answer: B E

Question 4

Which command can you enter to verify that a 128-bit address is live and responding?

A. traceroute
B. telnet
C. ping
D. ping ipv6

Answer: D

Question 5

Which technology supports the stateless assignment of IPv6 addresses?

A. DNS
B. DHCPv6
C. DHCP
D. autoconfiguration

Answer: B

Question 6

Which IPv6 header field is equivalent to the TTL?

A. Hop Limit
B. Flow Label
C. TTD
D. Hop Count
E. Scan Timer

Answer: A

Question 7

Which two statements about the "tunnel mode ipv6ip" command are true? (Choose two)

A. It enables the transmission of IPv6 packets within the configured tunnel.
B. It specifies IPv4 as the encapsulation protocol.
C. It specifies IPv6 as the encapsulation protocol.
D. It specifies IPv6 as the transport protocol.
E. It specifies that the tunnel is a Teredo tunnel.

Answer: A B

Question 8

In which three ways is an IPv6 header simpler than an IPv4 header? (Choose three)

A. Unlike IPv4 headers, IPv6 headers have a fixed length.
B. IPv6 uses an extension header instead of the IPv4 Fragmentation field.
C. IPv6 headers eliminate the IPv4 Checksum field.
D. IPv6 headers use the Fragment Offset field in place of the IPv4 Fragmentation field.
E. IPv6 headers use a smaller Option field size than IPv4 headers.
F. IPv6 headers use a 4-bit TTL field, and IPv4 headers use an 8-bit TTL field.

Answer: A B C

Question 9

Which two statements about IPv6 and routing protocols are true? (Choose two)

A. Link-local addresses are used to form routing adjacencies.
B. OSPFv3 was developed to support IPv6 routing.
C. EIGRP, OSPF, and BGP are the only routing protocols that support IPv6.

D. Loopback addresses are used to form routing adjacencies.
E. EIGRPv3 was developed to support IPv6 routing.

Answer: A B

Question 10

Which two features can dynamically assign IPv6 addresses? (Choose two)

A. IPv6 stateless autoconfiguration
B. DHCP
C. NHRP
D. IPv6 stateful autoconfiguration
E. ISATAP tunneling

Answer: A D

Question 11

Which three commands can you use to set a router boot image? (Choose three)

A. Router(config)# boot system flash c4500-p-mz.121-20.bin
B. Router(config)# boot system tftp c7300-js-mz.122-33.SB8a.bin
C. Router(config)#boot system rom c7301-advipservicesk9-mz.124-24.T4.bin
D. Router> boot flash:c180x-adventerprisek9-mz-124-6T.bin
E. Router(config)#boot flash:c180x-adventerprisek9-mz-124-6T.bin
F. Router(config)#boot bootldr bootflash:c4500-jk9s-mz.122-23f.bin

Answer: A B C

IPv6 Questions 2

http://www.9tut.com/ipv6-questions-2

Question 1

Which two statements about IPv6 router advertisement messages are true? (Choose two)

A. They use ICMPv6 type 134.
B. The advertised prefix length must be 64 bits.
C. The advertised prefix length must be 48 bits.
D. They are sourced from the configured IPv6 interface address.
E. Their destination is always the link-local address of the neighboring node.

Answer: A B

Question 2

Which three statements about IPv6 prefixes are true? (Choose three)

A. FF00:/8 is used for IPv6 multicast.
B. FE80::/10 is used for link-local unicast.
C. FC00::/7 is used in private networks.
D. 2001::1/127 is used for loopback addresses.
E. FE80::/8 is used for link-local unicast.
F. FEC0::/10 is used for IPv6 broadcast.

Answer: A B C

Question 3

You enter the "show ipv6 route" command on an OSPF device and the device displays a route. Which conclusion can you draw about the environment?

A. OSPF is distributing IPv6 routes to BGP.
B. The router is designated as an ABR.
C. The router is designated as totally stubby.
D. OSPFv3 is in use.

Answer: D

Question 4

What is one requirement for interfaces to run IPv6?

A. An IPv6 address must be configured on the interface.
B. An IPv4 address must be configured.
C. Stateless autoconfiguration must be enabled after enabling IPv6 on the interface.
D. IPv6 must be enabled with the ipv6 enable command in global configuration mode.

Answer: A

Question 5

Which entity assigns IPv6 addresses to end users?

A. ICANN
B. APNIC
C. RIR
D. ISPs

Answer: D

Question 6

Which command enables IPv6 forwarding on a cisco router?

A. IPv6 host
B. IPv6 unicast-routing
C. IPv6 local
D. IPv6 neighbor

Answer: B

Question 7

What is the correct command for floating static ipv6 route?

A. ipv6 route 2001:DB8::/32 serial 2/0 201
B. ipv6 route 2001:DB8::/32 serial 2/0 1
C. ?
D. ?

Answer: A

Question 8

What are types of IPv6 static routes? (Choose three)

A. Recursive routes
B. Directly connected routes
C. Fully specified routes
D. Advertised routes
E. Virtual links
F. Redistributed routes

Answer: A B C

Question 9

What are three parts of an IPv6 global unicast address? (Choose three)

A. an interface ID that is used to identify the local host on the network.
B. an interface ID that is used to identify the local network for a particular host.
C. a subnet ID that is used to identify networks inside of the local enterprise site
D. a global routing prefix that is used to identify the network portion of the address that has been provided by an ISP

E. a global routing prefix that is used to identify the portion of the network address provided by a local administrator

Answer: A C D

Question 10

Which two statements are true about IPv6 Unique Local Addresses? (Choose two)

A. It is the counterpart of IPv4 private addresses
B. It uses FC00::/7 as prefix
C. ?
D. ?

Answer: A B

Question 11

What is the binary pattern of unique IPv6 unique local address?

A. 00000000
B. 11111100
C. 11111111
D. 11111101

Answer: B

Security Questions

Question 1

Which statement about RADIUS security is true?

A. It supports EAP authentication for connecting to wireless networks.
B. It provides encrypted multiprotocol support.
C. Device-administration packets are encrypted in their entirety.
D. It ensures that user activity is fully anonymous.

Answer: A

Question 2

Which condition indicates that service password-encryption is enabled?

A. The local username password is in clear text in the configuration.
B. The enable secret is in clear text in the configuration.
C. The local username password is encrypted in the configuration.
D. The enable secret is encrypted in the configuration.

Answer: C

Question 3

Which command can you enter to configure a local username with an encrypted password and EXEC mode user privileges?

A. Router(config)#username jdone privilege 1 password 7 08314D5D1A48
B. Router(config)#username jdone privilege 1 password 7 PASSWORD1
C. Router(config)#username jdone privilege 15 password 0 08314D5D1A48
D. Router(config)#username jdone privilege 15 password 0 PASSWORD1

Answer: A

Question 4

Which command sets and automatically encrypts the privileged enable mode password?

A. enable password c1sco
B. secret enable c1sco
C. password enable c1sco
D. enable secret c1sco

Answer: D

Question 5

The enable secret command is used to secure access to which CLI mode?

A. user EXEC mode
B. global configuration mode
C. privileged EXEC mode
D. auxiliary setup mode

Answer: C

Question 6

Refer to the exhibit. What is the result of setting the no login command?

```
Router#config t
Router(config)#line vty 0 4
Router(config-line)#password c1sc0
Router(config-line)#no login
```

A. Telnet access is denied.
B. Telnet access requires a new password at the first login.
C. Telnet access requires a new password.
D. no password is required for telnet access.

Answer: D

Question 7

What is a difference between TACACS+ and RADIUS in AAA?

A. Only TACACS+ allows for separate authentication.
B. Only RADIUS encrypts the entire access-request packet.
C. Only RADIUS uses TCP.
D. Only TACACS+ couples authentication and authorization.

Answer: A

Question 8

Which protocol authenticates connected devices before allowing them to access the LAN?

A. 802.1d
B. 802.11
C. 802.1w
D. 802.1x

Answer: D

Question 9

Which three options are benefits of using TACACS+ on a device? (Choose three)

A. It ensures that user activity is untraceable.
B. It provides a secure accounting facility on the device.
C. device-administration packets are encrypted in their entirely.
D. It allows the user to remotely access devices from other vendors.
E. It allows the users to be authenticated against a remote server.
F. It supports access-level authorization for commands.

Answer: C E F

Question 10

A security administrator wants to profile endpoints and gain visibility into attempted authentications. Which 802.1x mode allows these actions?

A. Monitor mode
B. High-Security mode
C. Low-impact mode
D. Closed mode

Answer: A

Question 11

What should be part of a comprehensive network security plan?

A. Allow users to develop their own approach to network security
B. Physically secure network equipment from potential access by unauthorized individuals
C. Encourage users to use personal information in their passwords to minimize the likelihood of passwords being forgotten
D. Delay deployment of software patches and updates until their effect on end-user equipment is well known and widely reported
E. Minimize network overhead by deactivating automatic antivirus client updates

Answer: B

Question 12

Which password types are encrypted?

A. SSH
B. Telnet
C. enable secret
D. enable password

Answer: C

Question 13

How do you maintain security in multiple websites?

A. VPN
B. DMVPN
C. other
D. other

Answer: A

Question 14

Which of the following encrypts the traffic on a leased line?

A. telnet
B. ssh
C. vtp
D. vpn
E. dmvpn

Answer: B

Question 15

Which command is necessary to permit SSH or Telnet access to a Cisco switch that is otherwise configured for these vty line protocols?

A. transport type all
B. transport output all
C. transport preferred all
D. transport input all

Answer: D

Question 16

How to verify SSH connections were secured?

A. ssh -v 1 -l admin IP
B. ssh -v 2 -l admin IP
C. ssh -l admin IP
D. ssh -v 2 admin IP

Answer: B

Troubleshooting Questions

Question 1

Which interface counter can you use to diagnose a duplex mismatch problem?

A. runts
B. CRC errors
C. no carrier
D. late collisions
E. deferred
F. giants

Answer: B

Question 2

Refer to the exhibit. The two connected ports on the switch are not turning orange or green. What would be the most effective steps to troubleshoot this physical layer problem? (Choose three)
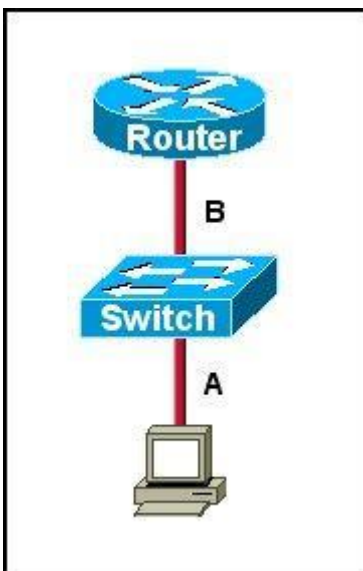
A. Ensure that the Ethernet encapsulations match on the interconnected router and switch ports.
B. Ensure that cables A and B are straight-through cables.
C. Ensure cable A is plugged into a trunk port.
D. Ensure the switch has power.
E. Reboot all of the devices.
F. Reseat all cables.

Answer: B D F

Question 3

What are reasons that duplex mismatches can be difficult to diagnose? (Choose two)

A. The interface displays a connected (up/up) state even when the duplex settings are mismatched.
B. 1-Gbps interfaces are full-duplex by default.
C. Full-duplex interfaces use CSMA/CD logic, so mismatches may be disguised by collisions.

D. The symptoms of a duplex mismatch may be intermittent.
E. Autonegotiation is disabled.

Answer: A D

Question 4

What are two reasons that duplex mismatches can be difficult to diagnose? (Choose two)

A. The interface displays a connected (up/up) state even when the duplex settings are mismatched.
B. The symptoms of a duplex mismatch may be intermittent.
C. Autonegotiation is disabled.
D. Full-duplex interfaces use CSMA/CD logic, so mismatches may be disguised by collisions.
E. 1-Gbps interfaces are full-duplex by default.

Answer: A B

Question 5

What is the best way to verify that a host has a path to other hosts in different networks?

A. Ping the loopback address.
B. Ping the default gateway.
C. Ping the local interface address.
D. Ping the remote network.

Answer: D

Question 6

While you were troubleshooting a connection issue, a ping from one VLAN to another VLAN on the same switch failed. Which command verifies that IP routing is enabled on interfaces and the local VLANs are up?

A. show ip interface brief
B. show ip nat statistics
C. show ip statistics
D. show ip route

Answer: D

DHCP Questions

http://www.9tut.com/dhcp-questions

Question 1

Which command can you enter to display duplicate IP addresses that the DHCP server assigns?

A. show ip dhcp conflict 10.0.2.12
B. show ip dhcp database 10.0.2.12
C. show ip dhcp server statistics
D. show ip dhcp binding 10.0.2.12

Answer: A

Question 2

What is the default lease time for a DHCP binding?

A. 24 hours
B. 12 hours
C. 48 hours
D. 36 hours

Answer: A

Question 3

Which statement is correct regarding the operation of DHCP?

A. A DHCP client uses a ping to detect address conflicts.
B. A DHCP server uses a gratuitous ARP to detect DHCP clients.
C. A DHCP client uses a gratuitous ARP to detect a DHCP server.
D. If an address conflict is detected, the address is removed from the pool and an administrator must resolve the conflict.
E. If an address conflict is detected, the address is removed from the pool for an amount of time configurable by the administrator.
F. If an address conflict is detected, the address is removed from the pool and will not be reused until the server is rebooted.

Answer: D

Question 4

Which command is used to build DHCP pool?

A. ip dhcp pool DHCP
B. ip dhcp conflict
C. ip dhcp-server pool DHCP
D. ip dhcp-client pool DHCP

Answer: A

Question 5

What is the two benefits of DHCP snooping? (Choose two)

A. static reservation
B. DHCP reservation
C. prevent DHCP rouge server
D. prevent untrusted host and servers to connect

Answer: B D

Syslog Questions

Question 1

Which logging command can enable administrators to correlate syslog messages with millisecond precision?

A. logging buffered 4
B. logging host 10.2.0.21
C. logging console
D. service timestamps log datetime msec
E. logging monitor

Answer: D

Question 2

If you configure syslog messages without specifying the logging trap level, which log messages will the router send?

A. informational messages only
B. warning and error conditions only
C. normal but significant conditions only
D. error conditions only
E. all levels except debugging

Question 3

If you are configuring syslog messages specifying 'logging trap warning', which log messages will the router send?

A. 0-4
B. 0-5
C. 0-2
D. 0-6
E. 0-1

Answer: A

Question 4

If you configure syslog messages without specifying the logging trap level, which log messages will the router send?

A. 0-4
B. 0-5
C. 0-2
D. 0-6
E. 0-1

Answer: D

Question 5

Two statements about syslog logging?

A. Syslog logging is disabled by default
B. Messages are stored in the internal memory of device
C. Messages can be erased when device reboots
D. Messages are stored external to the device
E. ?
F. ?

Answer: B C

Question 6

Refer to the exhibit. What is the cause of the Syslog output messages?

```
*Mar 01, 00:40:10.3111: %SYS-5-CONFIG_I: Configured from console by console
%LINK-5-CHANGED: Interface FastEthernet0/1, changed state to administratively down
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/1, changed state to down
$DUAL-5-NBRCHANGE: IP-EIGRP 1: Neighbor 10.10.11.2 (FastEthernet0/1) is down: interface down
```

A. The EIGRP neighbor on Fa0/1 went down due to a failed link.
B. The EIGRP neighbor connected to Fa0/1 is participating in a different EIGRP process, causing the adjacency to go down.
C. A shut command was executed on interface Fa0/1, causing the EIGRP adjacency to go down.
D. Interface Fa0/1 has become error disabled, causing the EIGRP adjacency to go down.

Answer: C

SNMP Questions

http://www.9tut.com/snmp-questions

Question 1

Which version of SNMP first allowed user-based access?

A. SNMPv3 with RBAC
B. SNMPv3
C. SNMPv1
D. SNMPv2

Answer: B

Question 2

What is the first step you perform to configure an SNMPv3 user?

A. Configure server traps.
B. Configure the server group.
C. Configure the server host.
D. Configure the remote engine ID.

Answer: B

NTP Questions

http://www.9tut.com/ntp-questions

Question 1

Which NTP command configures the local device as an NTP reference clock source?

A. ntp peer
B. ntp broadcast

C. ntp master
D. ntp server

Answer: D

Question 2

What command is used to configure a switch as authoritative NTP server?

A. ntp master 3
B. ntp peer IP
C. ntp server IP
D. ntp source IP

Answer: A

SDN Solution

http://www.9tut.com/sdn-solution

Question 1

Which component of the Cisco SDN solution serves as the centralized management system?

A. Cisco OpenDaylight
B. Cisco ACI
C. Cisco APIC
D. Cisco IWAN

Answer: C

Question 2

Which two statements about northbound and southbound APIs are true? (Choose two)

A. Only southbound APIs allow program control of the network.
B. Only northbound APIs allow program control of the network.
C. Only southbound API interfaces use a Service Abstraction Layer.
D. Only northbound API interfaces use a Service Abstraction Layer.
E. Both northbound and southbound API interfaces use a Service Abstraction Layer.
F. Both northbound and southbound APIs allow program control of the network.

Answer: B C

Wireless Questions

Question 1

Which device allows users to connect to the network using a single or double radio?

A. access point
B. switch
C. wireless controller
D. firewall

Answer: A

Question 2

Which two statements about wireless LAN controllers are true? (Choose two)

A. They can simplify the management and deployment of wireless LANs.
B. They rely on external firewalls for WLAN security.
C. They are best suited to smaller wireless networks.
D. They must be configured through a GUI over HTTP or HTTPS.
E. They can manage mobility policies at a systemwide level.

Answer: A E

Question 3

Which WAN topology is most appropriate for a centrally located server farm with several satellite branches?

A. star
B. hub and spoke
C. point-to-point
D. full mesh

Answer: B

Question 4

What are three broadband wireless technologies? (Choose three)

A. WiMax
B. satellite Internet
C. municipal Wi-Fi

D. site-to-site VPN
E. DSLAM
F. CMTS

Answer: A B C

Question 5

What are three characteristics of satellite Internet connections? (Choose three)

A. Their upload speed is about 10 percent of their download speed.
B. They are frequently used by rural users without access to other high-speed connections.
C. They are usually at least 10 times faster than analog modem connections.
D. They are usually faster than cable and DSL connections.
E. They require a WiMax tower within 30 miles of the user location.
F. They use radio waves to communicate with cellular phone towers.

Answer: A B C

Question 6

Which Cisco platform can verify ACLs?

A. Cisco Prime Infrastructure
B. Cisco Wireless LAN Controller
C. Cisco APIC-EM
D. Cisco IOS-XE

Answer: B

Miscellaneous Questions

http://www.9tut.com/miscellaneous-questions

Question 1

What is the authoritative source for an address lookup?

A. a recursive DNS search
B. the operating system cache
C. the ISP local cache
D. the browser cache

Answer: A

Question 2

Which feature builds a FIB and an adjacency table to expedite packet forwarding?

A. cut through
B. fast switching
C. process switching
D. Cisco Express Forwarding

Answer: D

Question 3

Which two statements about late collisions are true? (Choose two)

A. They may indicate a duplex mismatch.
B. By definition, they occur after the 512th bit of the frame has been transmitted.
C. They indicate received frames that did not pass the FCS match.
D. They are frames that exceed 1518 bytes.
E. They occur when CRC errors and interference occur on the cable.

Answer: A B

Question 4

Which option describes the purpose of traffic policing?

A. It prioritizes routing protocol traffic.
B. It remarks traffic that is below the CIR
C. It drops traffic that exceeds the CIR.
D. It queues and then transmits traffic that exceeds the CIR.

Answer: C

Question 5

Which option is the benefit of implementing an intelligent DNS for a cloud computing solution?

A. It reduces the need for a backup data center.
B. It can redirect user requests to locations that are using fewer network resources.
C. It enables the ISP to maintain DNS records automatically.
D. It eliminates the need for a GSS.

Answer: B

Question 6

Which statement about QoS default behavior is true?

A. Ports are untrusted by default.
B. VoIP traffic is passed without being tagged.
C. Video traffic is passed with a well-known DSCP value of 46.
D. Packets are classified internally with an environment.
E. Packets that arrive with a tag are untagged at the edge of an administrative domain.

Answer: E

Question 7

What 8-bit field exists in IP packet for QoS?

A. Tos Field
B. DSCP
C. IP Precedence
D. Cos
E. ?

Answer: A

Question 8

What feature uses a random time to re-sent a frame?

A. CSMA/CA
B. ?
C. ?
D. CSMA/CD

Answer: D

Question 9

Which command can you enter to verify echo request and echo reply?

A. ping
B. traceroute
C. tracert
D. telnet

Answer: A

Question 10

End-to-end response timeWhat are the three major components of Cisco network virtualization? (Choose three)

A. network access control
B. path isolation
C. virtual network services
D. policy enforcement

Answer: A B C

Question 11

Two features of the extended ping command? (Choose two)

A. It can send a specific number of packet
B. It can send packet from specified interface of IP address
C. It can resolve the destination host name
D. It can ping multiple host at the same time

Answer: A B

Question 12

What utility is used for shadowed rules?

A. Create an action plan
B. Implement an action plan
C. Gather facts
D. ?

Answer: B

Question 13

Which feature can you implement to reserve bandwidth for VoIP calls across the call path?

A. round robin
B. CBWFQ
C. PQ
D. RSVP

Answer: D

Question 14

Which option is a benefit of switch stacking?

A. It provides redundancy with no impact on resource usage.
B. It simplifies adding and removing hosts.
C. It supports better performance of high-needs applications.
D. It provides higher port density with better resource usage.

Answer: D

Drag and Drop

Question 1

The left describes the types of cables, while the right describes the purposes of the cables. Drag the items on the left to the proper locations. (Not all items can be used.)

crossover	switch access port to router
null modem	switch to switch
straight-through	PC COM to switch Console port
rollover	
9-25 pin serial	

Answer:

+ switch access port to router: straight-through
+ switch to switch: crossover
+ PC COM to switch Console port: rollover

Question 2

Match the items on the left with appropriate OSI layer on the right. (Not all options are used.)
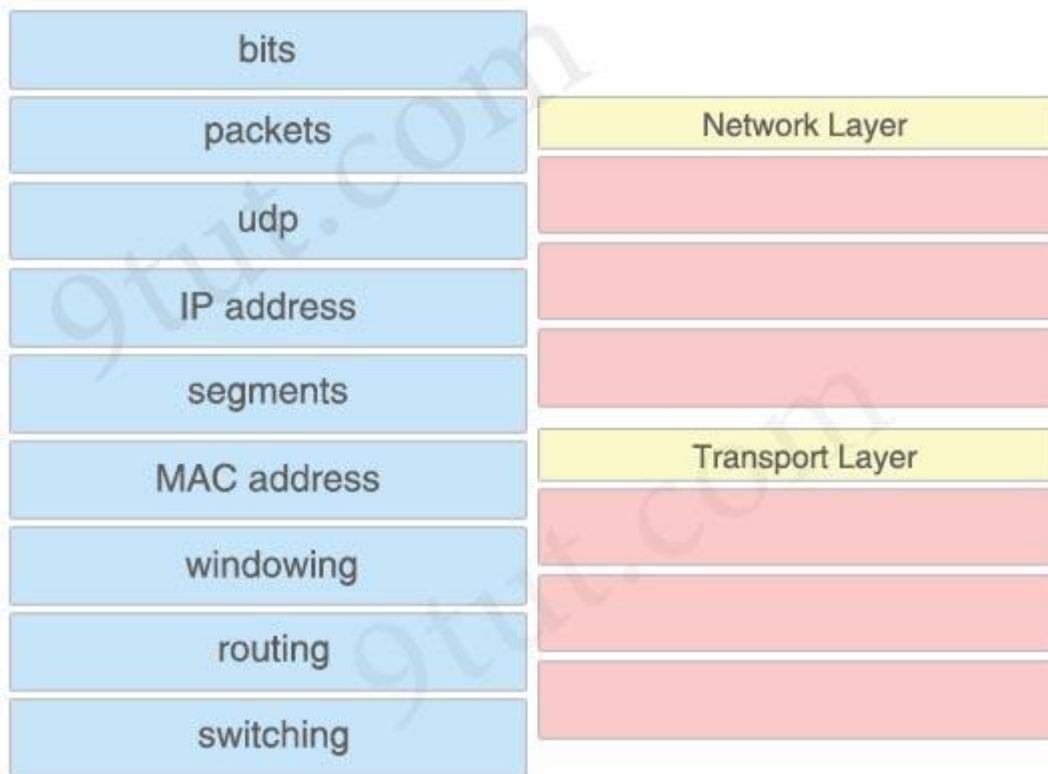
Answer:

Network Layer:
+ packets
+ IP address
+ routing

Transport Layer:
+ udp
+ segments
+ windowing

Question 3

Drag and drop the correct address space on the left to the IPv6 multicast feature or protocol on the right.

Answer:

+ All nodes of Link Local: FF02::1
+ All EIGRPv3 routers: FF02::A
+ All OSPFv3 Designated routers: FF02::6
+ All PIM routers: FF02::D
+ All OSPFv3 routers: FF02::5
+ All routers of site local: FF05::2

RIPv2 Troubleshooting Sim

http://www.9tut.com/ripv2-troubleshooting-sim

Refer to the topology below and answer the questions using "show" commands.

209.165.201.2/27

ISP

209.165.201.1/27

172.16.16.0/24

R1

RIPv2

172.16.14.0/30

10.10.12.0/24

10.10.10.0/24

R2

172.16.11.0/30

R3

VLAN 100

SW

VLAN 200

Server 1
192.168.100.250/24

Server 2
192.168.200.250/24
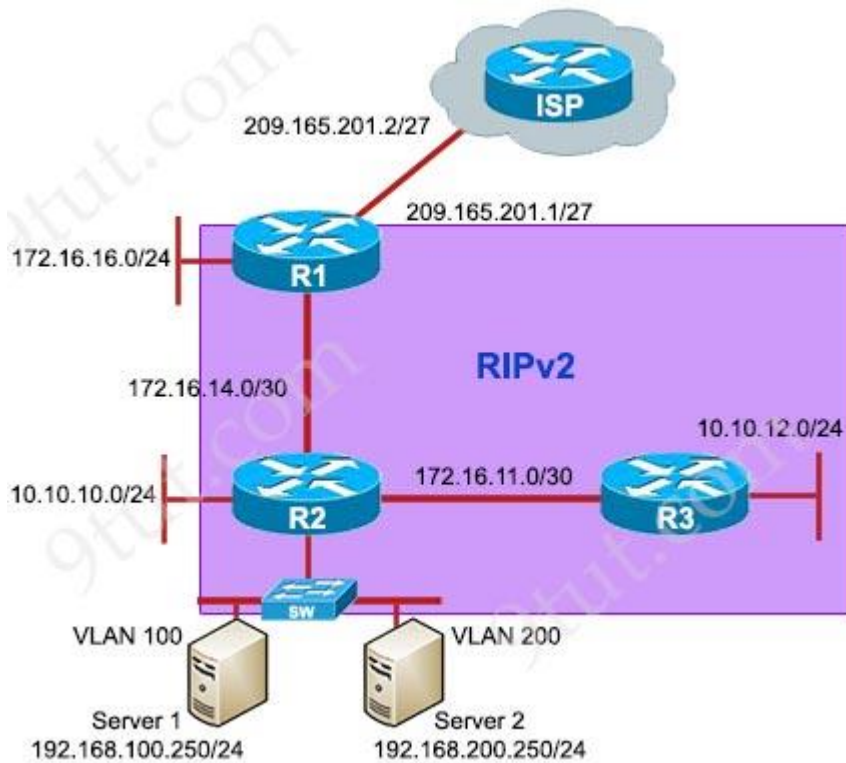
Question 1

Server1 and Server2 are unable to communicate with the rest of the network. Your initial check with system administrators shows that IP address settings are correctly configured on the server side. What could be an issue?

A. The VLAN encapsulation is misconfigured on the router subinterfaces.
B. The Router is missing subinterface configuration.
C. The Trunk is not configured on the L2SW1 switch.
D. The IP address is misconfigured on the primary router interface.

Answer: A

Question 2

Users in the main office complain that they are unable to reach internet sites. You observe that internet traffic that is destined towards ISP router is not forwarded correctly on Router R1. What could be an issue?

Ping to Internet server shows the following results from R1:

```
R1#ping 209.165.200.225
Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 209.165.200.225, timeout is 2 seconds:
.....
Success rate is 0 percent (0/5)
```

A. The next hop router address for the default route is incorrectly configured.
B. Default route pointing to ISP router is not configured on Router R1.
C. Default route pointing to ISP router is configured with AD of 225.
D. Router R1 configured as DHCP client is not receiving default route via DHCP from ISP router.

Answer: B

Question 3

Examine R2 configuration, the traffic that is destined to R3 LAN network sourced from Router R2 is forwarded to R1 instead R3. What could be an issue?

```
R2#traceroute 10.10.12.1 source 10.10.10.1
Type escape sequence to abort.
Tracing the route to 10.10.12.1
VRF info: (vrf in name/id, vrf out name/id)
1 172.16.14.1 0 msec 1 msec 0 msec
2 172.16.14.1 !H !H *

R2#
```

A. RIPv2 enabled on R3, but R3 LAN network that is not advertised into RIPv2 domain.
B. RIPv2 routing updates are suppressed between R2 and R3 using passive interface feature.
C. RIPv2 not enabled on R3.
D. No issue that is identified; this behavior is normal since default route propagated into RIPv2 domain by Router R1.

Answer: C

Question 4

What is the correct statement below after examining the R1 routing table?

A. Traffic that is destined to 10.10.10.0/24 from R1 LAN network uses static route instead RIPv2 because the static route AD that is configured is less than the AD of RIPv2
B. Traffic that is destined to 10.10.10.0/24 from R1 LAN network uses RIPv2 instead of static route because the static route AD that is configured is higher than the AD of RIPv2
C. Traffic that is destined to 10.10.10.0/24 from R1 LAN network uses static route instead of RIPv2 but the traffic is forwarded to the ISP instead of the internal network
D. Traffic that is destined to 10.10.10.0/24 from R1 LAN network uses RIPv2 instead of static route because the static route AD that is configured is 255

Answer: B

DHCP Sim

Refer to the topology below and answer the questions.
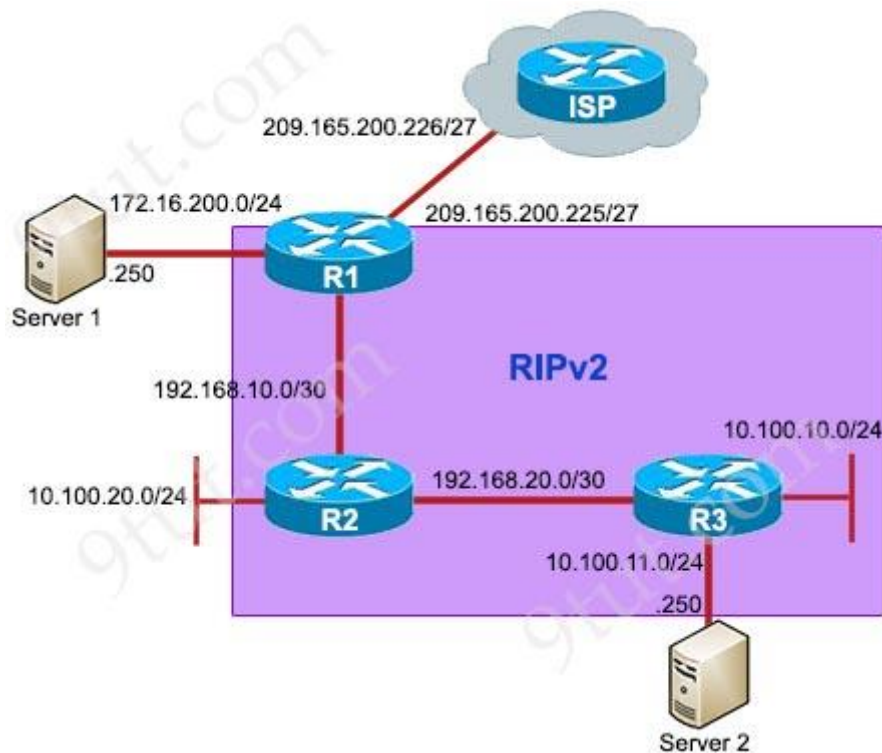
Question 1

Examine the DHCP configuration between R2 and R3, R2 is configured as the DHCP server and R3 as the client. What is the reason R3 is not receiving the IP address via DHCP?

A. On R3, DHCP is not enabled on the interface that is connected to R2.
B. On R3, the interface that is connected to R2 is in shutdown condition.
C. On R2, the interface that is connected to R3 is in shutdown condition.
D. On R2, the network statement in the DHCP pool configuration is incorrectly configured.

Answer: A

Question 2

R1 router clock is synchronized with ISP router. R2 is supposed to receive NTP updates from R1. But you observe that R2 clock is not synchronized with R1. What is the reason R2 is not receiving NTP updates from R1?

A. R1 router Ethernet interface that is connected to R2 is placed in shutdown condition.
B. R2 router Ethernet interface that is connected to R1 is placed in shutdown condition.

C. The NTP server command not configured on R2 router.
D. The IP address that is used in the NTP configuration on R2 router is incorrect.

Answer: D

Question 3

Why applications that are installed on PC's in R2 LAN network 10.100.20.0/24 are unable to communicate with Server1?

A. A standard ACL statement that is configured on R1 is blocking the traffic sourced from R2 LAN network.
B. A standard ACL statement that is configured on R1 is blocking the traffic sourced from Server1 network.
C. A standard ACL statement that is configured on R2 is blocking the traffic sourced from Server1 network.
D. A standard ACL statement that is configured on R2 is blocking the traffic sourced from R2 LAN network.

Answer: C

Question 4

Users complain that they are unable to reach internet sites. You are troubleshooting internet connectivity problem at main office. Which statement correctly identifies the problem on Router R1?

A. NAT configurations on the interfaces are incorrectly configured.
B. NAT translation statement incorrectly configured.
C. Interesting traffic for NAT ACL is incorrectly configured.
D. Only static NAT translation configured from the server, missing Dynamic NAT or Dynamic NAT overloading for internal networks.

Answer: A

EIGRP Troubleshooting Sim

Question

Refer to the topology. Your company has connected the routers R1, R2 and R3 with serial links. R2 and R3 are connected to the switches SW1 and SW2, respectively. SW1 and SW2 are also connected to the routers R4 and R5.

The EIGRP routing protocol is configured. You are required to troubleshoot and resolve the EIGRP issues between the various routers. Use the appropriate show commands to troubleshoot the issues.

Question 1

The loopback interfaces on R4 with the IP addresses of 10.4.4.4/32, 10.4.4.5/32 and 10.4.4.6/32 are not appearing in the routing table of R5. Why are the interfaces missing?

A. The interfaces are shutdown, so they are not being advertised.
B. R4 has been incorrectly configured to be in another AS, so it does not peer with R5.
C. Automatic summarization is enabled, so only the 10.0.0.0 network is displayed.
D. The loopback addresses haven't been advertised, and the network command is missing on R4.

Answer: B

Question 2

Which path does traffic take from R1 to R5?

A. The traffic goes through R2.
B. The traffic goes through R3.
C. The traffic is equally load-balanced over R2 and R3.
D. The traffic is unequally load-balanced over R2 and R3.

Answer: A

Question 3

Router R6 does not form an EIGRP neighbor relationship correctly with router R1. What is the cause for this misconfiguration?

A. The K values mismatch.
B. The AS does not match.

C. The network command is missing.
D. The passive-interface command is enabled.

Answer: C

Question 4

Study the following output taken on R1:

```
R1#ping 10.5.5.55 source 10.1.1.1
Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 10.5.5.55, timeout is 2 seconds:
Packet sent with a source address of 10.1.1.1
. . . . .
Success rate is 0 percent (0/5)
```

Why are the pings failing?

A. The network statement is missing on R5.
B. The loopback interface is shut down on R5.
C. The network statement is missing on R1.
D. The IP address that is configured on the Lo1 interface on R5 is incorrect.

Answer: C

OSPF Neighbor Sim

Question

Refer to the topology. Your company has decided to connect the main office with three other remote branch offices using point-to-point serial links. You are required to troubleshoot and resolve OSPF neighbor adjacency issues between the main office and the routers located in the remote branch offices.
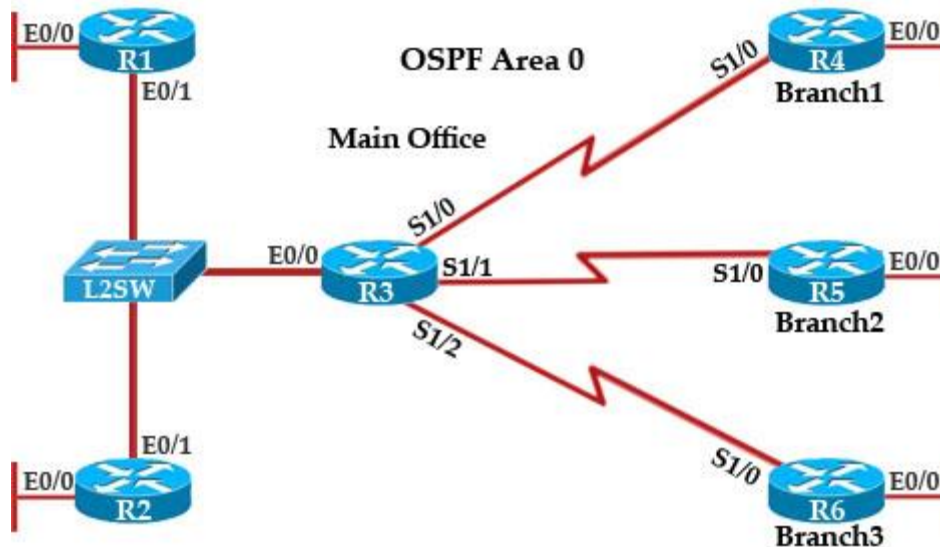
Question 1

An OSPF neighbor adjacency is not formed between R3 in the main office and R4 in the Branch1 office. What is causing the problem?

A. There is an area ID mismatch.
B. There is a Layer 2 issue; an encapsulation mismatch on serial links.
C. There is an OSPF hello and dead interval mismatch.
D. The R3 router ID is configured on R4.

Answer: A

Question 2

An OSPF neighbor adjacency is not formed between R3 in the main office and R5 in the Branch2 office. What is causing the problem?

A. There is an area ID mismatch.
B. There is a PPP authentication issue; a password mismatch.
C. There is an OSPF hello and dead interval mismatch.
D. There is a missing network command in the OSPF process on R5.

Answer: C

Question 3

R1 does not form an OSPF neighbor adjacency with R2. Which option would fix the issue?

A. R1 ethernet0/1 is shutdown. Configure no shutdown command.
B. R1 ethernet0/1 configured with a non-default OSPF hello interval of 25; configure no ip ospf

hello-interval 25
C. R2 ethernet0/1 and R3 ethernet0/0 are configured with a non-default OSPF hello interval of 25; configure no ip ospf hello-interval 25
D. Enable OSPF for R1 ethernet0/1; configure ip ospf 1 area 0 command under ethernet0/1

Answer: B

Question 4

An OSPF neighbor adjacency is not formed between R3 in the main office and R6 in the Branch3 office. What is causing the problem?

A. There is an area ID mismatch.
B. There is a PPP authentication issue; the username is not configured on R3 and R6.
C. There is an OSPF hello and dead interval mismatch.
D. The R3 router ID is configured on R6.

Answer: D

CCNA VTP SIM Question

http://www.9tut.com/80-ccna-vtp-sim-question

Question

This task requires you to use the CLI of Sw-AC3 to answer five multiple-choice questions. This does not require any configuration.

To answer the multiple-choice questions, click on the numbered boxes in the right panel.
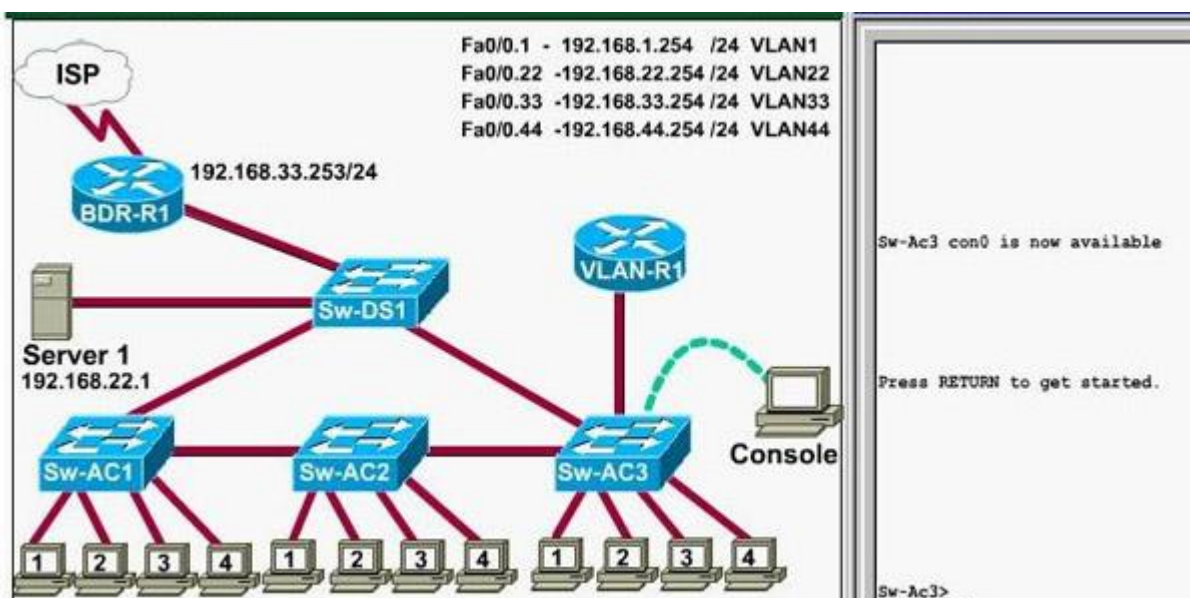
There are five multiple-choice questions with this task. Be sure to answer all five questions before leaving this item.

Notice: All the images in this VTP LAB are used for demonstration only, you will see slightly different images in the real CCNA exam. You can download this sim to practice here (but notice that this sim is not perfect, only for practicing purpose):
http://www.9tut.com/download/9tut.com_CCNA_vtp_sim.pka

Note: In this VTP sim, you have to answer 5 questions. After answering the first question, click on the number boxes to move to other questions. If you click "Next" at the first question, you will lose points for 4 remaining questions.

Question 1

What interface did Sw-AC3 associate with source MAC address 0010.5a0c.ffba ?

a) Fa0/1

b) Fa0/3

c) Fa0/6

d) Fa0/8

e) Fa0/9

f) Fa0/12

Answer: Fa 0/8

Question 2

What ports on Sw-AC3 are operating has trunks (choose three)?

a) Fa0/1

b) Fa0/3

c) Fa0/4

d) Fa0/6

e) Fa0/9

f) Fa0/12

Answer: Fa0/3, Fa0/9 and Fa0/12

Question 3

What kind of router is VLAN-R1?

a) 1720

b) 1841

c) 2611

d) 2620

Answer: 2620

Question 4

Which switch is the root bridge for VLAN 1?

Answer: Sw-DS1

Question 5

What address should be configured as the default-gateway for the host connected to interface fa 0/4 of SW-Ac3?

Answer: 192.168.44.254

Question 6

From which switch did Sw-Ac3 receive VLAN information ?

Answer: Sw-AC2

Question 7

Refer to the exibit, SwX was taken out of the production network for maintenance. It will be reconnected to the Fa 0/16 port of Sw-Ac3. What happens to the network when it is reconnected and a trunk exists between the two switches?

```
SwX#show vlan
VLAN Name  Status  Ports
.............................................
1  default   active Fa0/1, Fa0/2, Fa0/3
                    Fa0/4, Fa0/5, Fa0/6
                    Fa0/7, Fa0/8, Fa0/9
                    Fa0/10, Fa0/11, Fa0/12
                    Gi0/1, Gi0/2
2  students  active
3  admin     active
4  faculty   active
```

```
SwX#  show vtp stat
VTP Version               : 2
Configuration Revision    : 6
Maximum VLANs supported locally : 250
Number of existing VLANs    : 8
VTP Operating Mode          : Server
VTP Domain Name             : home-office
VTP Pruning Mode            : Disabled
VTP V2 Mode                 : Disabled
VTP Traps Generation        : Disabled
MD5 digest        : 0xD8 0xD8 0x38 0x22
                    0x98 0xE3 0xAC 0x65
Configuration last modified by 0.0.0.0  at
                    3-28-99  01:24:88
```

A – All VLANs except the default VLAN will be removed from all switches

B – All existing switches will have the students, admin, faculty, Servers, Management, Production, and no-where VLANs

C – The VLANs Servers, Management, Production and no-where will replace the VLANs on SwX

D – The VLANs Servers, Management, Production and no-where will be removed from existing switches

Answer: D

Question 8

Out of which ports will a frame be forwarded that has source mac-address 0010.5a0c.fd86 and destination mac-address 000a.8a47.e612? (Choose three)

A – Fa0/8

B – Fa0/3

C – Fa0/1

D – Fa0/12

Answer: B C D

Question 9

If one of the host connected to Sw-AC3 wants to send something for the ip 190.0.2.5 (or any ip that is not on the same subnet) what will be the destination MAC address?

CCNA Access List Sim 2

http://www.9tut.com/78-ccna-access-list-sim-2

Question

Security is being added to the Corp1 router. The user on host C should be able to use a web browser to access financial information from the Finance Web Server. No other hosts from the LAN nor the Core should be able to use a web browser to access this server. Since there are multiple resources for the corporation at this location including other resources on the Finance Web Server, all other traffic should be allowed.

The task is to create and apply a numbered access-list with no more than three statements that will allow ONLY host C web access to the Finance Web Server. No other hosts will have web access to the Finance Web Server. All other traffic is permitted.
Access to the router CLI can be gained by clicking on the appropriate host.

All passwords have been temporarily set to "cisco".
The Core connection uses an IP address of 198.18.196.65
The computers in the Hosts LAN have been assigned addresses of 192.168.33.1 – 192.168.33.254
Host A 192.168.33.1
Host B 192.168.33.2
Host C 192.168.33.3
Host D 192.168.33.4
The servers in the Server LAN have been assigned addresses of 172.22.242.17 – 172.22.242.30
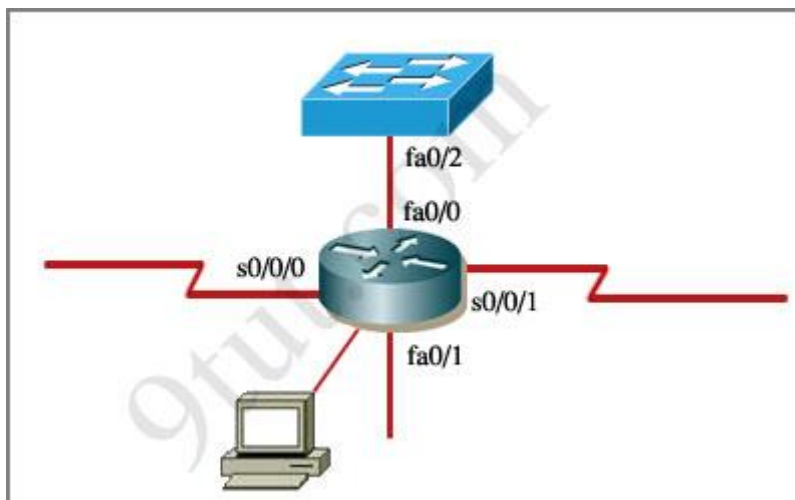The Finance Web Server is assigned an IP address of 172.22.242.23.
The Public Web Server is assigned an IP address of 172.22.242.17

CCNA Access List Sim

Question

An administrator is trying to ping and telnet from Switch to Router with the results shown below:

Switch>
Switch> ping 10.4.4.3

Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 10.4.4.3,timeout is 2 seconds:
.U.U.U
Success rate is 0 percent (0/5)
Switch>
Switch> telnet 10.4.4.3
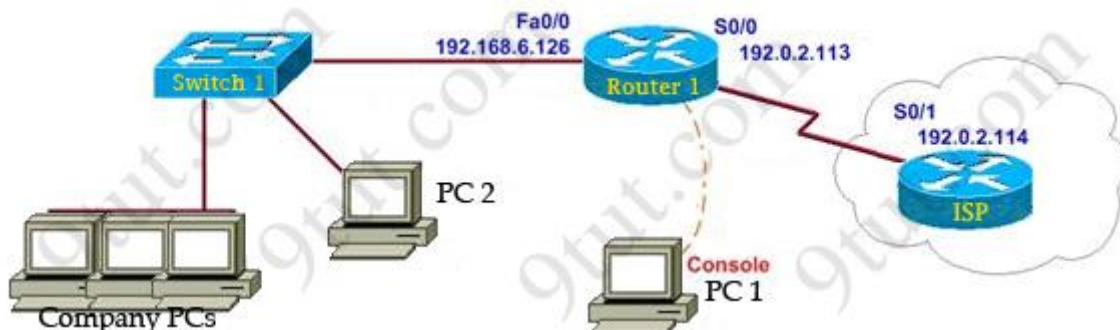Trying 10.4.4.3 …
% Destination unreachable; gateway or host down
Switch>

Click the console connected to Router and issue the appropriate commands to answer the questions.

# CCNA NAT SIM Question 2

Question

CCNA EIGRP LAB Question

Question

After adding R3 router, no routing updates are being exchanged between R3 and the new location.
All other inter connectivity and Internet access for the existing locations of the company are working
properly.

The task is to identify the fault(s) and correct the router configuration to provide full connectivity
between the routers.

Access to the router CLI can be gained by clicking on the appropriate host. All passwords on all
routers are cisco.

IP addresses are listed in the chart below.
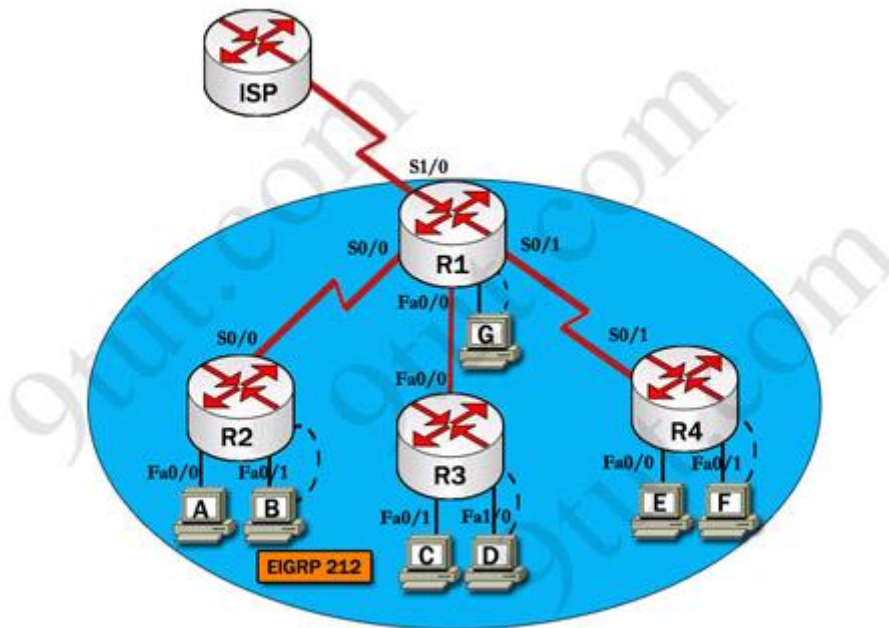
R1	R2
Fa0/0: 192.168.77.33	**Fa0/0:** 192.168.60.97
S1/0: 198.0.18.6	**Fa0/1:** 192.168.60.113
S0/1: 192.168.60.25	**S0/0:** 192.168.36.14
S0/0: 192.168.36.13	
R3	R4
Fa0/0: 192.168.77.34	**Fa0/0:** 192.168.60.129
Fa0/1: 192.168.60.65	**Fa0/1:** 192.168.60.145
Fa1/0: 192.168.60.81	**S0/1:** 192.168.60.26

CCNA Configuration SIM Question

http://www.9tut.com/59-ccna-configuration-sim-question

Question

To configure the router (R2-RC) click on the console host icon that is connected to a router by a serial console cable (shown in the diagram as a dashed black line)
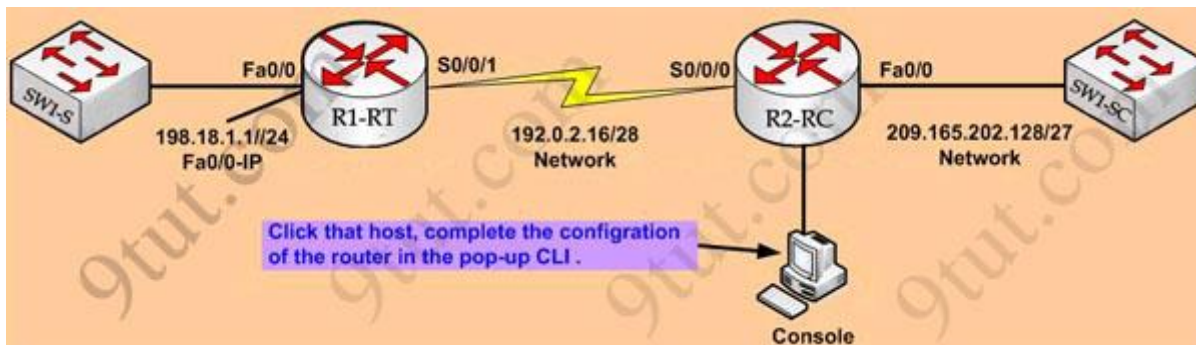
CCNA Training Company recently installed a new router in their office. Complete the network installation by performing the initial router configurations and configuring RIPV2 routing using the router command line interface (CLI) on the R2-RC.

Name of the router is **R2-RC**
Enable-secret password is **cisco1**
The password to access user EXEC mode using the console is **cisco2**
The password to allow telnet access to the router is **cisco3**
IPV4 addresses must be configured as follows:
Ethernet network **209.165.202.128/27** – router has last assignable host address in subnet
Serial network is **192.0.2.16/28** – router has last assignable host address in the subnet. Interfaces should be enabled.
Router protocol is **RIP V2**

Attention :
In practical examinations, please note the following, the actual information will prevail.
1. Name of the router is xxx
2. Enable-secret password is xxx
3. Password to access user EXEC mode using the console is xxx
4. The password to allow telnet access to the router is xxx
5. IP information

CCNA NAT SIM Question 1

http://www.9tut.com/52-ccna-nat-sim-question

Question

A network associate is configuring a router for the CCNA Training company to provide internet access. The ISP has provided the company six public IP addresses of 198.18.184.105 198.18.184.110. The company has 14 hosts that need to access the internet simultaneously. The hosts in the CCNA Training company LAN have been assigned private space addresses in the range of 192.168.100.17 – 192.168.100.30.

The task is to complete the NAT configuration using all IP addresses assigned by the ISP to provide Internet access for the hosts in the Weaver LAN. Functionality can be tested by clicking on the host provided for testing.

Configuration information
router name – Weaver
inside global addresses – 198.18.184.105 198.18.184.110/29
inside local addresses – 192.168.100.17 – 192.168.100.30/28
number of inside hosts – 14

The following have already been configured on the router :

– The basic router configuration

– The appropriate interfaces have been configured for NAT inside and NAT outside

– The appropriate static routes have also been configured (since the company will be a stub network, no routing protocol will be required.)

– All passwords have been temporarily set to "cisco"