Part 9

QUESTION 679
Which of the following are true regarding a network using a subnet mask of 255.255.248.0?(Choose three)
A.It corresponds to a Class A address with 13 bits borrowed.
B.It corresponds to a Class B address with 4 bits borrowed.
C.The network address of the last subnet will have 248 in the 3rdoctet.
D.The first 21 bits make the host portion of the address.
E.This subnet mask allows for 16 total subnets to be created.
F.The subnetwork numbers will be in multiples of 8.

Answer: A, C, F

Explanation:
This subnet mask includes the first 5 bits within the third octet, so for a class A address 13 bits will be used for the mask
(8 bits in the second octet plus 5 in the third).
Since the first 5 bits are used in this octet, that means that remaining 3 bits in this octet will be available for hosts, so
each network will be a factor of 8, making the last available subnet with a .248 in the third octet.

QUESTION 680
Your Certkiller trainee Bob asks you what 11111001 binary is in decimal. What should you tell him?
A.6
B.193
C.225
D.241
E.249

Answer: E

Explanation:
The binary number 11111001 translates to 128 + 64+32+16+8+1 = 249

QUESTION 681
The Certkiller network is displayed in the diagram shown below:

The Certkiller network consists of a small office with twentyfive
employees that has one connection to the

Internet through the CK1 router. What routing configurations are recommended on the CK1 and ISP routers?
A.BGP on both the routers.
B.RIP on both the routers.
C.Default routes on both routers.
D.BGP on the ISP router and a static route on CK1 .
E.A default route on CK1 and a static route on the ISP router.

Answer: E

Explanation:
Since private network use RFC 1918 IP address ranges internally, and because of security reasons, it is generally not
possible to use an interior routing protocol with the ISP.This eliminates choice B.When connecting to an ISP, usually
only BGP or static routes are supported.In this case, since there is only one connection to the Internet, BGP is not
needed so choices A and D can be eliminated.A static default route would be needed on router CK1 to route to the
Internet.In turn, the ISP only needs a specific static route to reach the LAN of the Certkiller network.
Incorrect Answers:
A, D.BGP is not needed on networks that contain only a single link to the Internet.
B.Interior routing protocols are generally not supported with an ISP.
C.A default route on the ISP router would send all of their customers Internet traffic to the Certkiller network, and not
the Internet.

QUESTION 682
The following configuration command was issued on router CK1 :
ip route 172.16.3.0 255.255.255.0 192.168.2.1
Which of the following statements are true regarding this command? (Select two)
A.The command is used to establish a static route.
B.The default administrative distance is used.
C.The command is used to configure the default route.
D.The subnet mask for the source address is 255.255.255.0
E.The command is used to establish a stub network

Answer: A, B

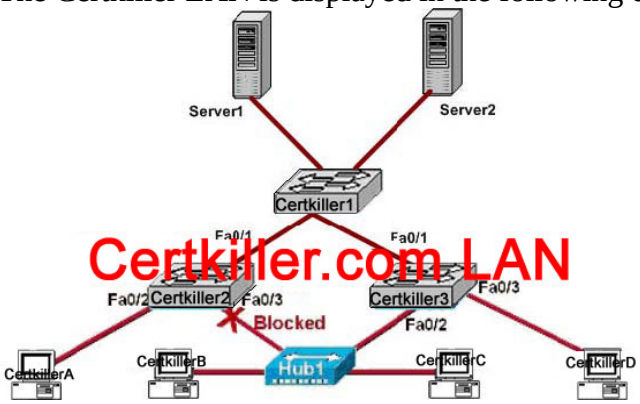
Explanation:
The IP route command is used to establish a static route. The default administrative distance is used because the other
distance is not set at the end of the command.Unless otherwise specified by placing a cost at the end of this command,
the default administrative distance will be 1.

QUESTION 683
You need to set the default gateway of one of your Certkiller switches.Which command will set the default gateway to 192.168.12.1 on a Cisco switch?
A.Switch(config)# ip defaultnetwork
192.168.12.1
B.Switch(config)#ip routedefault
192.168.12.1
C.Switch(config)# ip defaultgateway
192.168.12.1
D.Swicth(config)# ip route 192.168.12.1 0.0.0.0

Answer: C

Explanation:
Ip defaultgateway
address is a global command that sets the default gateway so that the management interface can be reached from a remote network.This is the correct command used on Cisco switches.
Reference: Cisco CCNA ICND p.14

QUESTION 684
The Certkiller LAN is displayed in the following diagram:



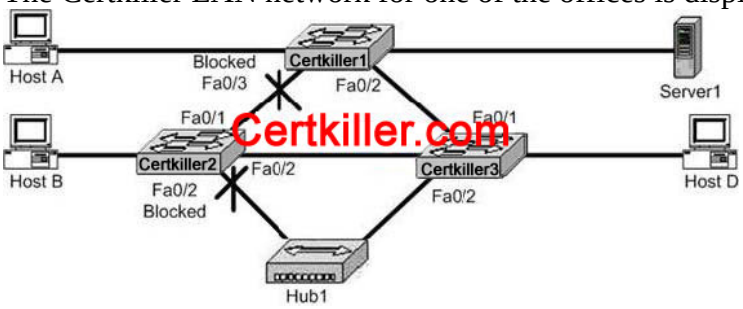
Assuming all hosts and servers are in the same VLAN, which statement is correct about the exhibit?
A.Switch Certkiller 2 is the root bridge.
B.Spanning Tree Protocol is not running.
C.Host Certkiller D and Server1 are in the same network.
D.No collisions can occur in traffic between Host Certkiller B and host Certkiller C.

Answer: C

Explanation:
Since there are no routers in the network diagram, and it was stated that all hosts and servers are in the same VLAN, it
can be assumed that these two devices are in the same IP network.
Incorrect Answers:
A. Certkiller 2 can not be the root bridge, since it contains a blocking port.On the root bridge, all ports are nonblocking.

B.STP has to be enabled, otherwise one of the ports would not be in blocking mode.
D.Since these devices are separated only by a layer 1 hub device, they will both be in the same collision domain.

QUESTION 685
The Certkiller LAN network for one of the offices is displayed below:

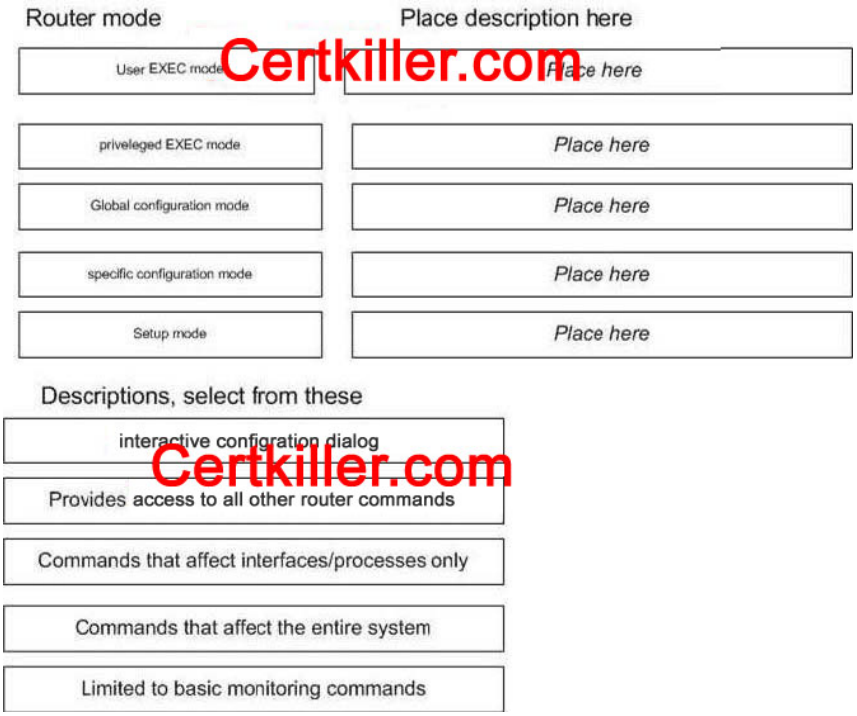


Assuming there is only one VLAN in this network, which switch is acting as the root bridge?
A. Certkiller 1
B. Certkiller 2
C. Certkiller 3
D.A root bridge is not required in this network.

Answer: C

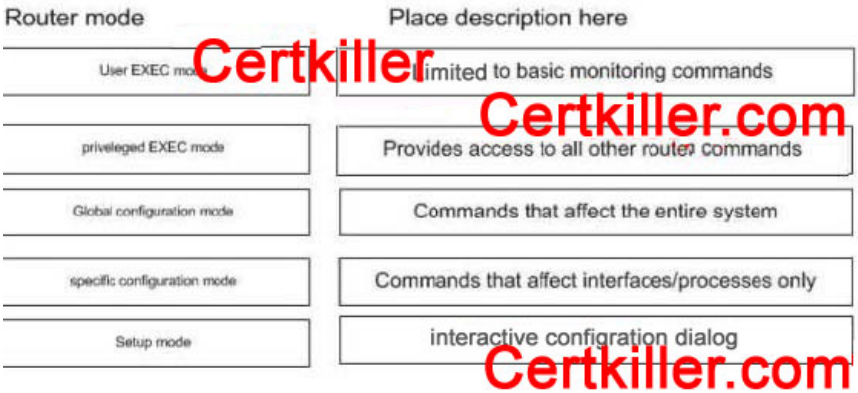
Explanation:
A root switch has all ports in nonblocking
mode.Based on the diagram above, Certkiller 1 and Certkiller 2 contain ports
that have been blocked by the STP process, so Certkiller 3 must be the root bridge.

QUESTION 686
Your Certkiller .com boss asks you tot match the descriptions to the corresponding router modes.



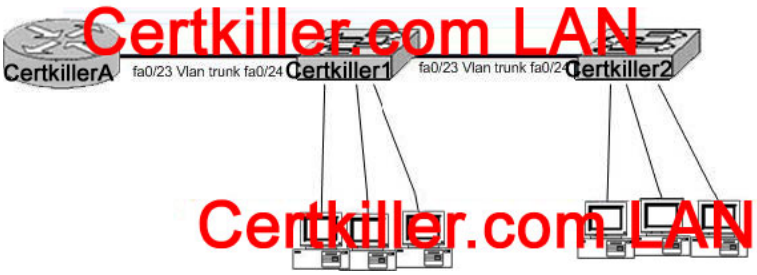
Answer:

Your Certkiller.com boss asks you to match the descriptions to the corresponding router modes.



QUESTION 687

The Certkiller network is displayed in the following diagram:



You work as a network technician at Certkiller .com. A new switch named Certkiller 2 is being added to

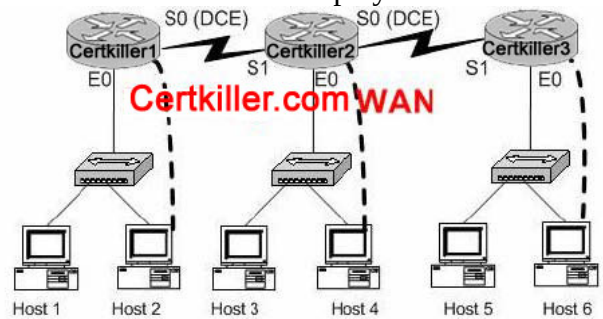
Certkiller .com LAN. You will work to complete this process by first configuring the Certkiller 2 switch with IP address and default gateway. For the switch host address you should use the first available IP address on the management subnet. In addition, the switch needs o be configure to be in the same VTP domain as the Certkiller 1 switch, andalso needs to be configured as a VTP client.
Assume that the IP configuration and VTP configuration or completed and working.
You must accomplish the following-
1.Determine and configure the IP host address of the new switch
2.Determine and configure the default gateway of the switch
3.Determine and configure the correct VTP domain name for the new switch
4.Configure the new switch as a VTP Client

Answer:

Explanation:
Step 1: Determine & Configure the IP hot address for the New switch
Certkiller 2 (configline)#
interface vlan 1
Certkiller 2 (configline)#
ip address A.D.C.D 255.255.255.0
Certkiller 2 (configline)#
no shutdown
Step 2: Configure the default gateway
Certkiller 2 (config)# ip defaultgateway
A.B.C.D
Step 3 & 4: Configure the Certkiller 2 switch as VTP Client and configure the correct VTP domain
Certkiller 2 (config)# vtp mode client
Certkiller 2 (configline)#vtp domain Certkiller
Certkiller 2 (configline)#vtp password Certkiller
Certkiller 2 (configline)#vtp pruning

Explanation: Even though we don't have enough information to deduce the IP address but at least we know the step by
step procedure to configure the switch Certkiller 2.

QUESTION 688
The Certkiller WAN is displayed below:



You work as a network engineer at Certkiller .com. Three Certkiller stores have established network connectivity. The routers are named Certkiller 1, Certkiller 2, and Certkiller 3. The manager at the Certkiller

site, Jack King, has decided to deny the ability of anyone from any other network to connect to the Certkiller 3 router with the ping command. Implment an access list on the Certkiller 3 router to deny this detection but allow all other types of traffic to pass. The access list should contain no more than three statements. The routers have been configured with the following specifications:
*The routers are named Certkiller 1, Certkiller 2, and Certkiller 3.
*RIP is the routing protocol.
*Clocking signal is provided on the serial 0 interfaces.
*The password on each router is " Certkiller ".
*The subnet mask on all interfaces is the default mask.
*The IP addresses are listed in the chart below.
Certkiller 1
E0192.168.49.1
S0192.168.51.1.
Certkiller 2
E0192.168.53.1
S0192.168.55.1
S1192.168.51.2
Certkiller 3
E0192.168.57.1
S1192.168.55.2
To configure the router click on the host icon that is connected to a router by a serial console cable.

Answer:

Explanation:
Click on Host 6 to connect to and configure Certkiller 3.
configure terminalaccesslist
101 deny icmp any 192.168.57.1 0.0.0.0accesslist
101 deny icmp any 192.168.55.2
0.0.0.0accesslist
101 permit ip any any
Interface s1Ip accessgroup
101 ininterface ethernet0ip accessgroup
101 outctrl zcopy running-config startup-config

QUESTION 689
While troubleshooting a link problem on one of the Certkiller routers, the following output was seen:

```
Certkiller3# show interfaces serial 0/0
Serial0/0 is up, line protocol is down
  Hardware is HD64570
  Internet address is 192.168.100.1/24
  MTU 1500 bytes, BW 1544 Kbit, DLY 20000 usec,
     reliability 255/255, txload 1/255, rxload 1/255
  Encapsulation HDLC, loopback not set
  Keepalive set (10 sec)
```


Based on the information above, what are possible causes for the status of this interface? Select three.

A.The interface is shut down.
B.No keepalive messages are received.
C.The clockrate is not set.
D.No loopback address is set.
E.No cable is attached to the interface.
F.There is a mismatch in the encapsulation type.

Answer: B, C, F

Explanation:
Table 151:
Serial Lines: show interfaces serial Status Line Conditions This
table shows the interface status
conditions, possible problems associated with the conditions, and solutions to those problems.

Status Line Condition	Possible Problem	Solution
Serial x is up, line protocol is up		This is the proper status line condition. No action required.
Serial x is down, line protocol is down (DTE mode)	• Typically indicates that the router is not sensing a CD signal (that is, CD is not active). • Telephone company problem-Line is down or line is not connected to CSU/DSU • Faulty or incorrect cabling • Hardware failure (CSU/DSU)	1. Check the LEDs on the CSU/DSU to see if CD is active, or insert a breakout box on the line to check for the CD signal. 2. Verify that you are using the proper cable and interface (see your hardware installation documentation). 3. Insert a breakout box and check all control leads. 4. Contact your leased-line or other carrier service to see if there is a problem. 5. Swap faulty parts. 6. If you suspect faulty router hardware, change the serial line to another port. If the connection comes up, the previously connected interface has a problem.
		1. Put the modem, CSU, or DSU in local loopback mode and use the **show interfaces serial** command to see if the line protocol comes up. If the line protocol comes up, a telephone company problem or a failed remote router is the likely problem. 2. If the problem appears to be on the remote end, repeat Step 1 on the remote modem, CSU, or DSU. 3. Verify all cabling. Make sure

Serial x is up, line protocol is down (DTE mode)	misconfigured • Keepalives are not being sent by remote router • Leased-line or other carrier service problem-Noisy line, or misconfigured or failed switch • Timing problem on cable (SCTE not set on CSU/DSU) Failed local or remote CSU/DSU • Failed local or remote CSU/DSU • Router hardware failure (local or remote)	4. Enable the **debug serial interface** EXEC command. **Caution:** Because debugging output is assigned a high priority in the CPU process, it can render the system unusable. For this reason, use debug commands only to troubleshoot specific problems or during troubleshooting sessions with Cisco technical support staff. Moreover, it is best to use **debug** commands during periods of low network traffic and fewer users. Debugging during these periods decreases the likelihood that increased **debug** command processing overhead will affect system use. 5. If the line protocol does not come up in local loopback mode and if the output of the **debug serial interface** EXEC command shows that the keepalive counter is not incrementing, a router hardware problem is likely. Swap router interface hardware. 6. If the line protocol comes up and the keepalive counter increments, the problem is not in the local router. Troubleshoot the serial line as described in the sections "Troubleshooting Clocking Problems" and "CSU and DSU Loopback Tests," later in this chapter. 7. If you suspect faulty router hardware, change the serial line to an unused port. If the connection comes up, the previously connected interface

Serial x is up, line protocol is down (DCE mode)	• Missing **clockrate** interface configuration command • DTE device does not support or is not set up for SCTE mode • Failed remote CSU or DSU • Failed or incorrect cable • Router hardware failure	1. Add the **clockrate** interface configuration command on the serial interface. **Syntax:** **clock rate *bps*** **Syntax Description:** o *bps*-Desired clock rate in bits per second: 1200, 2400, 4800, 9600, 19200, 38400, 56000, 64000, 72000, 125000, 148000, 250000, 500000, 800000, 1000000, 1300000, 2000000, 4000000, or 8000000. 2. Set the DTE device to SCTE mode if possible. If your CSU/DSU does not support SCTE, you may have to disable SCTE on the Cisco router interface. See the section "Inverting the Transmit Clock," later in this chapter. 3. Verify that the correct cable is being used. 4. If the line protocol :s still down, there is a possible hardware failure or cabling problem. Insert a breakout box and observe leads. 5. Replace faulty parts as necessary.
		1. Use the **show running-config** privileged EXEC command to look for any loopback interface configuration command entries. 2. If you find a **loopback** interface configuration command entry, use the **no loopback** interface

	If the same random number is returned over the link, a loop exists.	mode. If they are, disable manual loopback. 4. Reset the CSU or DSU, and inspect the line status. If the line protocol comes up, no other action is needed. 5. If the CSU or DSU is not configured in manual loopback mode, contact the leased-line or other carrier service for line troubleshooting assistance.
Serial x is up, line protocol is down (disabled)	• High error rate due to telephone company service problem • CSU or DSU hardware problem • Bad router hardware (interface)	1. Troubleshoot the line with a serial analyzer and breakout box. Look for toggling CTS and DSR signals. 2. Loop CSU/DSU (DTE loop). If the problem continues, it is likely that there is a hardware problem. If the problem does not continue, it is likely that there is a telephone company problem. 3. Swap-out bad hardware as required (CSU, DSU, switch, local or remote router).
Serial x is administratively down, line protocol is down	• Router configuration includes the **shutdown** interface configuration command • Duplicate IP address	1. Check the router configuration for the **shutdown** command. 2. Use the **no shutdown** interface configuration command to remove the **shutdown** command. 3. Verify that there are no identical IP addresses using the **show running-config** privileged EXEC command or the **show interfaces** EXEC command. 4. If there are duplicate addresses, resolve the conflict by changing one of the IP addresses.

Reference:
http://www.cisco.com/en/US/tech/ CK7 13/ CK6 28/technologies_tech_note09186a00800a758d.shtml

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QUESTION 690
Two Certkiller routers are connected together as shown in the diagram below:

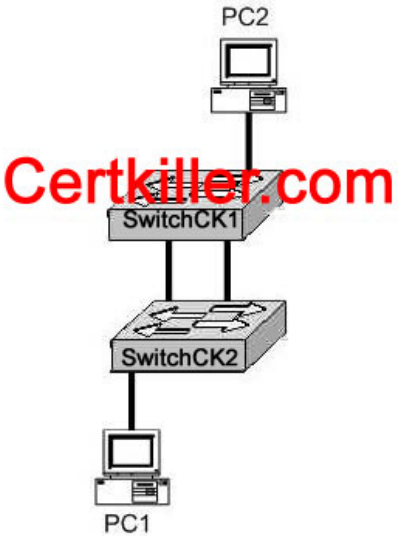
You work as a network administrator at Certkiller .com. You attempt to telnet from the console port on Router Certkiller 1 to 192.1.2.65. The Telnet connection is unsuccessful.

However, a ping to 192.1.2.65 is successful.
What could cause this problem?(Select two)
A.PPP authentication configuration problem
B.IP address/subnet mask configuration error
C.access control list filtering
D.defective serial cable
E.no clock rate on interface s0 on Certkiller 2
F.missing VTY password

Answer: C, F

Explanation:
Since a ping to 192.1.2.65 is successful we can eliminate IP configuration
beiing incorrect, however a telnet session is not successful could indeed be because
the vty password is not set or missing.
To be able to telnet to the router you need the set the telnet with line vty
0 4 command.
Also, C is correct because an access list that was placed on the router could be configured to deny the telnet traffic,
while at the same time permitting ICMP ping traffic.

QUESTION 691
A simple Certkiller network is displayed in the diagram below:

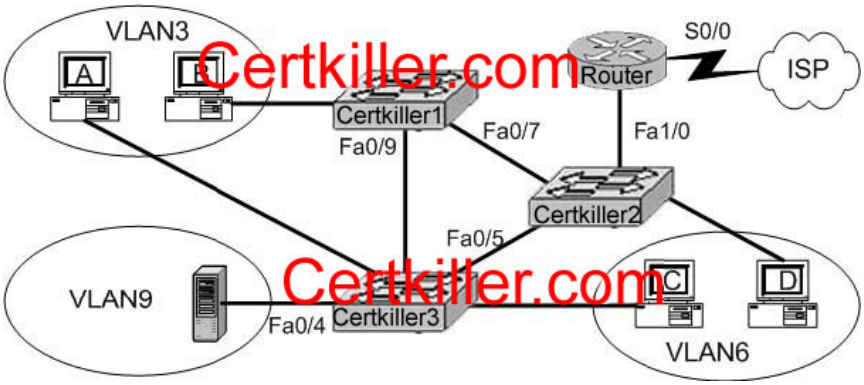


When PC1 sends an ARP requests for the MAC address of PC1, network performance slows dramatically, and the switches detect an unusually high number of broadcast frames. What is the most likely cause of this?
A.Theportfastfeature is not enabled on all switch ports.
B.The PCs are in two different VLANS.
C.Spanning Tree Protocol is not running on the switches.
D.PC2 is down and is not able to respond to the request.
E.The VTP version running on the two switches do not match.

Answer: C

Explanation:
As the switches CK1 and CK2 are connected with each other via two links, spanning tree must be enabled on both
switches to avoid switching loops and broadcast storms. An ARP request is a broadcast message. If Spanning tree is not
running, broadcast loops will form reducing the performance of the network.

QUESTION 692
The Certkiller network is shown below:



A technician is investigating a problem with the network shown above. These symptoms have been observed:
1.All of the user hosts can access the Internet.
2.None of the user hosts can access the server in VLAN9
3.All of the hosts can ping each other.
What could cause the symptoms?
A.Interface S0/0 on the router is down.
B.Interface Fa1/1 on the router is down.
C.Interface Fa0/5 on Certkiller 3 is down.
D.Interface Fa0/4 on Certkiller 3 is down.
E. Certkiller 2 is turned off.
F.Trunking is not enabled on the link between Certkiller 1 and Certkiller 3.

Answer: D

Explanation:
If the network interface connecting VLAN 9 was down, all devices would be unable to reach the server, but they would
not have any issues when trying to connect to other devices within the network, or when trying to reach the Internet.

QUESTION 693
While troubleshooting a Certkiller router, the following command was issued:

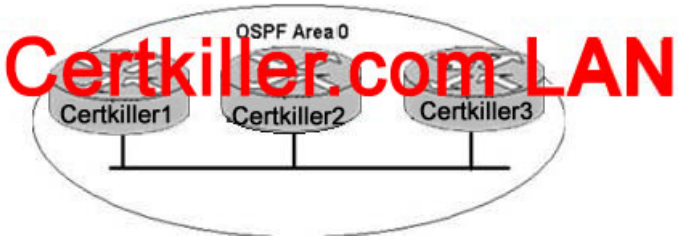
```
Certkiller3 # show ip route
....output omitted....
Gateway of last resort is 140.8.100.5 to network 0.0.0.0
R 140.8.7.0/24 [120/3] via 150.8.12.9:00:00:20 serial 01
O 140.8.5.5/24 [110/782] via 140.8.100.5 , 00:38:34 serial 0/0
R 140.8.78.8/29 [120/2] via 150.8.12.9 : 00:00:22 serial 0/1
C 140.8.100.0/28 is directly connected, serial 0/0
O 0.0.0.0/0 [110/2738] via 140.8.100.5,00:38:34, serial 0/0
```


In the route highlighted in the graphic, what does the number 782 represent?
A.Administrative distance
B. delay to the destination
C. cost of the route
D. hop count

Answer: C

Explanation: The exhibit Shows osf is been used as the routing protocol and OSPF uses Cost.The cost (also called
metric) of an interface in OSPF is an indication ofthe overhead required to send packets across a certain interface. The
costof an interface is inversely proportional to the bandwidth of thatinterface. A higher bandwidth indicates a lower cost.

QUESTION 694
The Certkiller OSPF Backbone network is displayed below:



Certkiller 1 is unable to establish an OSPF neighbor relationship with Certkiller 3. What are possible reasons for this problem?(Choose Two).
A.All of the routers need to be configured for backbone Area1.
B. Certkiller 1 and Certkiller 2 are the DR and BDR, so OSPF will not establish neighbor adjacency with Certkiller 3
C.A static route has been configured from Certkiller 1 to Certkiller 3 and prevents the neighbor adjacency from being established.
D.The hello and dead interval timers are not set to the same values on Certkiller 1 and Certkiller 3.
E.EIGRP is also configured on these routers with a lower administrative distance.
F. Certkiller 1 and Certkiller 3 are configured in different areas.

Answer: D, F

Explanation:

Inorderfor two OSPF routers to establish a neighbor adjacency, they must agree on a number of things, including the
hello intervals, dead intervals, and the area ID's.Although a router can be configured for multiple OSPF areas, a neighbor relationship will only be built on interfaces that share the same area.

QUESTION 695
The Certkiller WAN is displayed below:

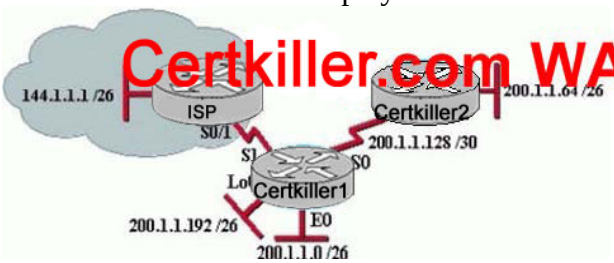
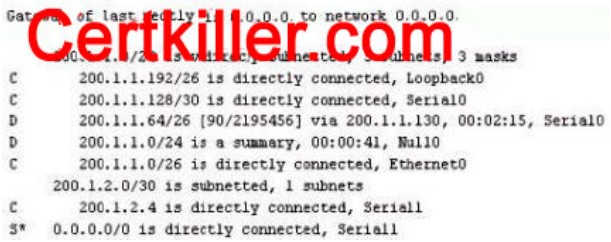


Exhibit #2

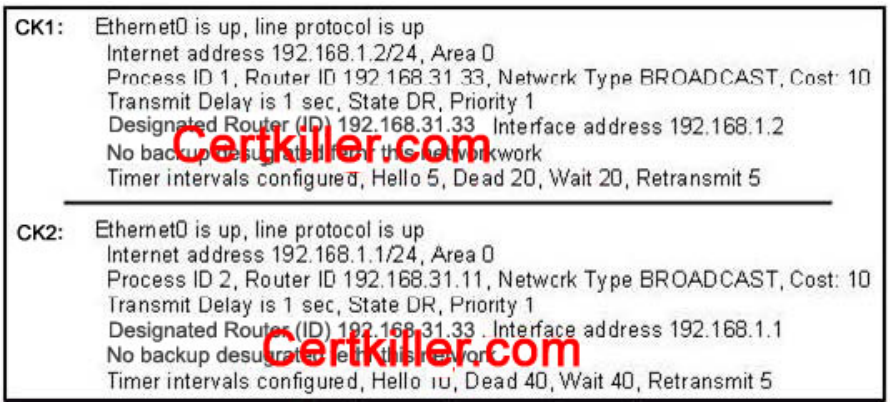


What can be determined from the router output displayed in the exhibit?
A.200.1.1.64 is a default route.
B.The output shows that there are three default routes.
C.The output came from router Certkiller 2.
D.The output came from a router that has four physical interfaces.
E.EIGRP is in use in this network.

Answer: E

Explanation:
In the routing table the "D" letter marks the route learned from EIGRP routing protocol.Based on the routing table
above, there are 4 directly connected IP interfaces, 2 EIGRP learned routes (which means that EIGRP is in use on this
network) and a static default route was also configured.

QUESTION 696
The interface information for two Certkiller routers is displayed below:



A network administrator is troubleshooting the OSPF configuration of routers CK1 and CK2 . 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 CK1 and CK2 . 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 CK1 should be set higher.
C.The cost on CK1 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

Explanation:
As can be seen above, the hello interval for CK1 has been set to 5 seconds, while it is set to 10 for CK2 .Also, the dead
interval on CK1 is set at 20 seconds while on router CK2 it is set to 40 seconds.Inorderfor two routers to establish an
OSPF neigh adjacency, the hello and dead timers must match.

QUESTION 697
The following was issues on router Certkiller A:
Certkiller A #show ip ospf neighbor
Neigbor IDPRIStateDead TimeAddressInterface
192.168.1.21Full/-00:00:37192.168.1.2Serial1
Which type of OSPF network will provide the output shown in the graphic?
A.FDDI
B.nonbroadcast multicast
C.broadcast multiaccess
D.pointtopoint

Answer: D

Explanation:
The following offers an example of an OSPF ptpt
connection:

Certkiller A#show ip ospf neighbor
Neighbor IDPriStateDead TimeAddressInterface
2.2.2.21FULL/ 00:
00:372.2.2.2Serial0
Certkiller A#show ip ospf interface serial 0
Serial0 is up, line protocol is up
Internet Address 0.0.0.0/24, Area 0
Process ID 1, Router ID 3.3.3.3, Network Type POINT_TO_POINT, Cost: 64
Transmit Delay is 1 sec, State POINT_TO_POINT,
Timer intervals configured, Hello 10, Dead 40, Wait 40, Retransmit 5
Hello due in00:00:08
Index 2/2, flood queue length 0
Next 0x0(0)/0x0(0)
Last flood scan length is 1, maximum is 1
Last flood scan time is 0 msec, maximum is 0 msec
Neighbor Count is 1, Adjacent neighbor count is 1
Adjacent with neighbor 2.2.2.2
Suppress hello for 0 neighbor(s)
Reference:Http://www.cisco.com/en/US/tech/ CK3
65/technologies_configuration_example09186a0080094057.shtml

QUESTION 698
A simple Certkiller network is displayed below:

A Cisco router Certkiller 2 and a Catalyst Switch Certkiller switch are connected as shown in the exhibit. The Certkiller .com technician is working on a computer that is connected to the management console of the switch. Inorderto configure the default gateway for the switch, the technician needs to learn the IP address of the attached router interface.
Which IOS command will provide this information in the absence of Layer 3 connectivity?
A.pingrouter_ip_address
B.pingswitchr_ip_address
C.show ip rarp
D.show cdp neighbors detail
E.show ip neighbors
F.show dhcpconfig

Answer: D

Explanation:
The "show cdp neighbor detail" command can be issued on a Cisco router or the switch. This command shows the

information about all attached devices, assuming that they are also Cisco attached network devices, with CDP enabled.

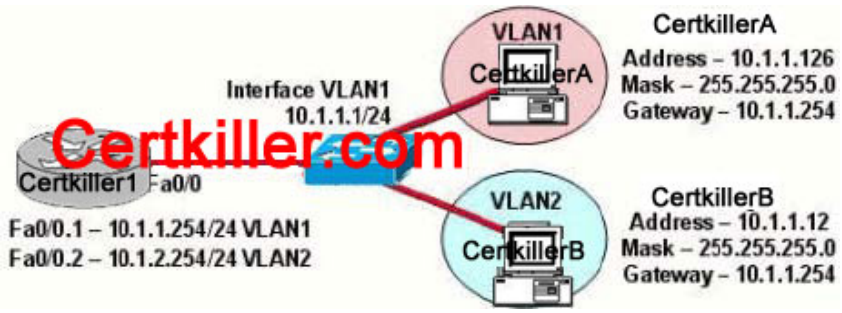
QUESTION 699
The Certkiller network is shown in the diagram below:

The Ethernet networks connect to router Certkiller 1 in the exhibit have been summarized for router Certkiller 2 as 192.1.144.0/20. Which of the following packet destination addresses will Certkiller 2 forward to Certkiller 1, according to this summary? Select two.
A.192.1.159.2
B.192.1.160.11
C.192.1.138.41
D.192.1.151.254
E.192.1.143.145
F.192.1.1.144

Answer: A, D

Explanation:
To be a part of the advertised summary route, the addresses should have first 20 bit the same as 192.1.144.0. Since
first 16 are the same for all, lets check just 4 bits from the 3rdoctet for all of them:
Summary route:1001
A: 1001
B:1010
C:1000
D:1001
E:1000
F:0000
Based on this, only choice A and D meet the requirements.

QUESTION 700
A Certkiller network is shown below:

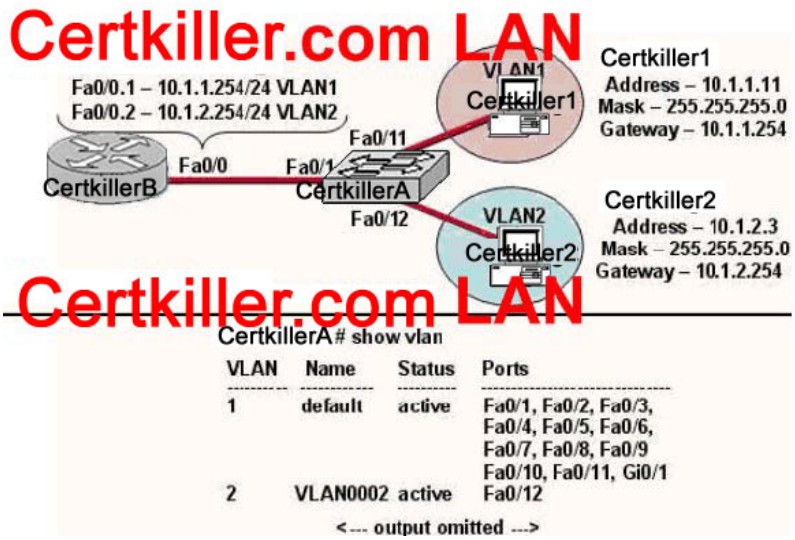


The network shown in the exhibit above is experiencing connectivity problems. Which of the following will correct the problems?(Select two)
A.Configure the gateway on Certkiller A as 10.1.1.1.
B.Configure the gateway on Certkiller B as 10.1.2.254.
C.Configure the IP address of Certkiller A as 10.1.2.2.
D.Configure the IP address of Certkiller B as 10.1.2.2.
E.Configure the masks on both hosts to be 255.255.255.224.
F.Configure the masks on both hosts to be 255.255.255.240.

Answer: B, D

Explanation:
All devices must have their default gateways set to an IP address that is in the same IP network that the station is in.
Based on the diagram above, Certkiller B is in VLAN2, so the default gateway for this device should be the IP address
of the VLAN 2 interface on the router.In addition, the IP addresses of both devices reside within the same IP subnet.
Since they belong to different VLANs, the best method to ensure proper connectivity would be to give Certkiller B an IP
address within the same IP range as the VLAN that it belongs to, which is VLAN2 in this example.

QUESTION 701
The Certkiller network is displayed below:

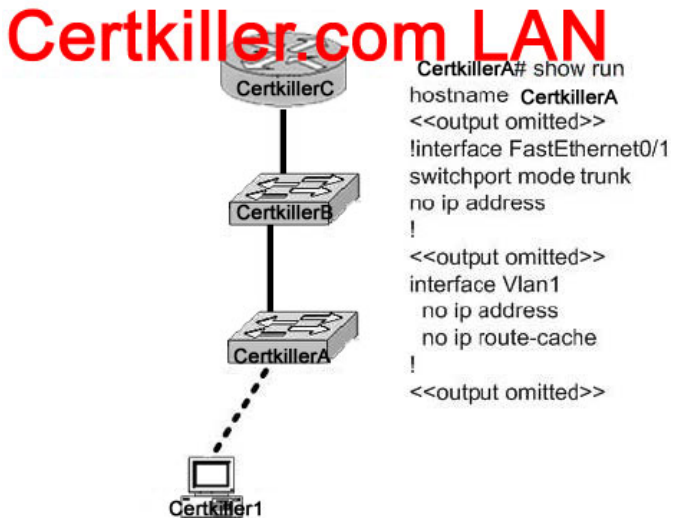


Study the exhibit: the topology and the partial switch command output.
The internetwork shown in the exhibit is experiencing connectivity problems. Host Certkiller 1 is unable to ping Host Certkiller 2.
What needs to be done to enable these hosts to ping each other?
A.The gateway on Host Certkiller 1 needs to be changed.
B.The IP address on Host Certkiller 2 needs to be reconfigured.
C.VLAN2 must be named.
D.The Fa0/1 interface on the Certkiller A switch must be configured as a trunk port.
E.Switch port Fa0/1 must be moved to a different VLAN.

Answer: D

Explanation:
Interface FA0/1 should be in any case configured as a trunk port so that a router could switch packets between the
VLANs. The IP addresses are acceptable, so no issues should be caused due this.

QUESTION 702
A Certkiller LAN is shown in the diagram below:



In this network, Host Certkiller 1 is consoled into Switch Certkiller
A. Telnet connections and pings run from
the command prompt on Switch Certkiller A fail.
Which of the following could cause this problem?
A.Switch Certkiller A is not directly connected to router Certkiller C.
B.Switch Certkiller A does not have a default gateway assigned.
C.Switch Certkiller A does not have a CDP entry for Switch Certkiller B or Router Certkiller C.
D.Switch Certkiller A does not have an IP address.
E.Port 1 on Switch Certkiller A should be an access port rather than a trunk port.

Answer: B, D
For ping and Telnet the switch should be configured with the IP address and the default gateway. IP is used for administrative purposes, and is needed so the end device will know which IP address to direct the ICMP and telnet
reply traffic to.
Incorrect Answers:
A.This is not required, since switch LANs can span multiple VLANs and switches and hubs can be connected directly
together.
C.CDP is not required inorderfor ping and telnet traffic to work.
E.The port type in this case will not cause any kind of connectivity problems, since Trunk ports pass information from all
VLANs by default.

QUESTION 703
The following command was seen on one of the Certkiller devices:

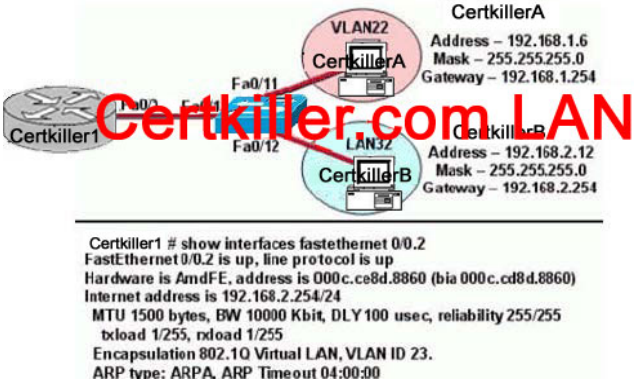
What is the meaning of the output of the show cdp neighborscommand in the exhibit?
A.The Certkiller 2 router has a route to the Certkiller 1 router using the Serial 0/1 interface. The route can be

directly
connected or remote.
B.The Certkiller 1 switch directly connects to the Certkiller 2 router using the Serial 0/1 interface on both Cisco devices.
C.The Certkiller 2 device is a Cisco router, and it connects using the Serial 0/1 interface to the Certkiller 1 Cisco router's
Serial 0/1 interface.
D.The Certkiller 2 device is a nonCisco
device that connects to a Cisco router using the Serial 0/1 interface on both
devices.

Answer: C

Explanation:
CDP is a media- and protocol-independent protocol that runs on all Cisco-manufactured equipment including routers,
bridges, access and communication servers, and switches. Using CDP, you can view information about all the Cisco
devices directly attached to the switch. In addition, CDP detects native VLAN and port duplex mismatches.
Network management applications can retrieve the device type and SNMPagent
address of neighboring Cisco devices
using CDP. This enables applications to send SNMP queries to neighboring devices. CDP allows network management
applications to discover Cisco devices that are neighbors of already known devices, in particular, neighbors running
lower-layer,transparent protocols.
CDP runs on all media that support Subnetwork Access Protocol (SNAP). CDP runs over the data link layer only.

QUESTION 704
A Certkiller network is displayed below:



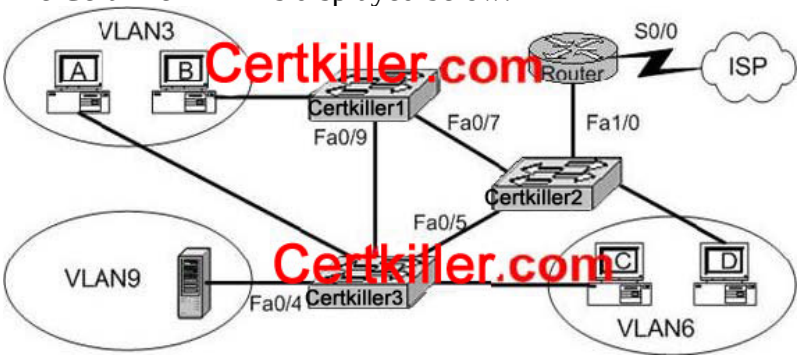
Host Certkiller B in the diagram is experiencing connectivity problems. Further Testing reveals that it cannot ping the default gateway. Based on the information shown in the exhibit, what is the problem?
A.The IP address of Certkiller B is on a different subnet than the default gateway.
B.The Fa0/1 interface on the switch is administratively shutdown.
C.The switch is connected to the wrong interface on the Certkiller 1 router.

D.The FastEthernet interface on the Certkiller router is not configured for trunking.
E.The Fastethernet 0/0.2 inteface on the Certkiller 1 router is configured for the wrong VLAN.
F.The FastEthernet interface of the Certkiller 1 router is configured with the wrong Ethernet encapsulation.

Answer: E

Explanation:
Based on the output shown ablove, the Fa 0/0.2 interface should be in VLAN 32, which is the same VLAN that other
devices in the 192.168.2.X/24 subnet belong to.Interface FA0/0.1 should be configured for VLAN 22, while FA0/0/2
should be configured for VLAN 32.

QUESTION 705
The Certkiller LAN is displayed below:



A technician is investigating a problem with the exhibited network. These symptoms have been observed:
1.None of the user hosts can access the Internet.
2.None of the user hosts can access the server in VLAN 9.
3.Host A can ping Host B.
4.Host A CANNOT ping Host C or Host D.
5.Host C can ping Host D.
What could cause these symptoms?
A.Interface S0/0 on the router is down.
B.Interface Fa1/0 on the router is down.
C.Interface Fa0/5 on Certkiller 3 is down.
D. Certkiller 1 is turned off.
E. Certkiller 3 is turned off.

Answer: B

Explanation:
Choice B is correct because a Router is used for communication between different VLANs and it is stated that none of
the hosts can access the server in VLAN 9 it means that there is no connection of the network with router so FA1/0 is
down.In this example, connectivity problems only occur with interVLAN
communication, which means the problem is

with the routing element.
Incorrect Answers:

A. This may indeed be true, but until the LAN interface problems of the router is resolved it is not an issue.If this was
the only problem, then there would be no problems with Host A trying to reach Host C or D.
C.This choice is wrong because Host C can ping Host D so FA0/5 cannot be down.
D, E.Choice D and E are wrong because Host A can Ping Host B it means that theswitch Certkiller 1 and switch Certkiller 3 are both functioning properly and is turned on.

QUESTION 706
The Certkiller WAN is shown in the diagram below:

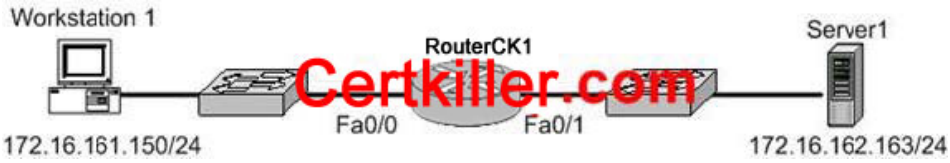

```
Certkiller1 (config)# ip nat pool c-pool 66.179.148.33 66.179.148.34
    netmask 255.255.255.248
Certkiller1 (config)# access-list 1 permit 192.168.9.0 0.0.0.248
Certkiller1 (config)# ip nat inside source list 1 pool c-pool overload
Certkiller1 (config)# interface fastethernet 0/0
Certkiller1 (config-if)# ip nat inside
Certkiller1 (config)# interface serial 0/0
Certkiller1 (config-if)# ip nat outside
```

Refer to the exhibit and sequence of configuration commands shown in the graphic. The network at Certkiller 1 has just been configured for NAT as shown. Initial tests indicate that the network is functioning properly.
However, several users report that they cannot access the Internet. What is the problem?
A.The NAT pool does not have enough IP addresses.
B.The access list is not permitting all of the LAN host addresses to be translated.
C.The NAT inside and NAT outside interfaces are reversed.
D.The link between the Certkiller routers and the Certkiller 2 ISP

Answer: B

Explanation:
The source of the IP address hosts that should be translated is specified in access list 1, which only specifies 192.168.9.0 0.0.0.248.This will only translate host 192.168.9.1192.168.1.7.The correct syntax should have been:
access-list 1 permit 192.168.9.0 0.0.0.255

QUESTION 707
The network topology for a Certkiller location is shown below:



Refer to the graphic. It has been decided that Workstation 1 should be denied access to Server1. Which of the following commands are required to prevent only Workstation 1 from accessing Server1 while allowing all other traffic to flow normally? (Choose two)

A.Router CK1 (config)# interface fa0/0Router CK1 (config-if)# ip access-group101 out

B.Router CK1 (config)# interface fa0/0Router CK1 (config-if)# ip access-group101 in

C.Router CK1 (config)# access-list 101 deny tcp ip host 182.16.161.150 host 172.16.162.163Router CK1 (config)#
access-list 101 permit ip any any

D.Router CK1 (config)# access-list 101 deny ip 172.16.161.150 0.0.0.255 172.16.162.163 0.0.0.0
Router CK1 (config)# access-list 101 permit ip any any

Answer: B, C

Explanation:
To block communication between Workstation A and Server 1, we have to configure Extended Access List.
To define an extended IP access list, use the extended version of the accesslist
command in global configuration mode.
To remove the access lists, use the no form of this command.
access-listaccess-list-number [dynamicdynamic-name[timeoutminutes]]{deny|permit}protocol source source-wildcard destination destination-wildcard
Source Address will be of the Workstation A i.e. 172.16.161.150 and destination address will be of the Server 1 i.e.
172.16.162.163.
Access list will be placed on the FA0/0 of Router CK1 .

QUESTION 708

The Certkiller Frame Relay network is shown in the output below:

You work as a network engineer at Certkiller .com. The topology of the Certkiller .com network is displayed in the exhibit. Router Certkiller A is unable to reach router Certkiller B. Both routes are running IOS version 12.0. After reviewing the command output and the network topology exhibit, what is the most likely cause of the problem?

A.Incorrect bandwidth configuration

B.Incorrect LMI configuration

C.Incorrect map statement

D.Incorrect IP address

Answer: C

Explanation:
Study the exhibit. The routers have been configured with the wrong DLCI.In this example, the frame relay map that was
configured should have specified 100 as the DLCI, not 200.

QUESTION 709
Which command can be used to determine the type of cable attached to the Serial 0/0 interface on a router?
A.show interfaces serial 0/0
B.show runningconfig
C.show version
D.show controllers serial 0/0
E.show ip interface
F.show line serial 0/0

Answer: D

Explanation:
Theshow controllerscommand shows that the physical layer is working and what type of cable is connected. In the
output below, CK1 is connected at the DCE end and CK2 at the DTE end.
CK1 #show controllers serial 0HD unit 1, idb = 0xF22E4, driver structure at 0xF7778buffer size 1524 HD unit 0 1,
V.35 DCE cable, clockrate 64000! Output---suppressed.

QUESTION 710
Routers CK1 and CK2 are connected as shown in the diagram below:

Based only on the topology and the output from the router shown in the graphic, what is the most likely

reason Host A cannot ping Host B?
A.A bad or disconnected cable.
B.An improperly configured SPID.
C.A missing route on CK1 and CK2 .
D.Improperly configured ISDN switch type.
E.An improperly configured IP address.

Answer: B

Explanation:
Since one of the SPIDs is working properly, we can safely assume that layers 1 and 2 are functioning properly on this
ISDN connection, so the cable, connection, and ISDN switch type configured are all OK.The most logical reason for
the output shown above is that the second SPID was not configured correctly.

QUESTION 711
The Certkiller network is shown in the diagram below:

The network administrator has configured NAT as shown in the exhibit. Some clients can access the Internet while others cannot.
What should the network administrator do to resolve this problem?
A.Configure an IP NAT pool.
B.Properly configure the ACL.
C.Apply the ACL to the S0 interface.
D.Configure another interface with theip nat outsidecommand.
E.Configure the ip nat inside and ip nat outside commands

Answer: B

Explanation: "Some clients can access the Internet while others cannot." this is a huge hint that tell us either:1.ACL is
blocking some people
2.You are not using overload when you should
3.That you are using 2 inside subnets like in this example & 1 of those does not have the IP NAT INSIDE statement
against it.In this example, the access list specified is only allowing users on the 192.168.1.0/24 subnet should be translated, so all of the users on E1 (192.168.2.X/24 subnet) will not get translated, and will therefore not be able to
reach the Internet.

QUESTION 712
The Certkiller network topology is displayed below:

Exhibit, Certkiller 1 configuration

```
Gateway of last report is 0.0.0.0 to network 0.0.0.0
     200.1.1.0/24 is variably subnetted, 5 subnets, 3 masks
C       200.1.1.192/26 is directly connected, Loopback0
C       200.1.1.128/30 is directly connected, Serial0
D       200.1.1.64/26 [90/2195456] via 200.1.1.130, 00:02:15, Serial0
D       200.1.1.0/24 is a summary, 00:00:41, Null0
C       200.1.1.0/26 is directly connected, Ethernet0
     200.1.2.0/30 is subnetted, 1 subnets
C       200.1.2.4 is directly connected, Serial1
S*   0.0.0.0/0 is directly connected, Serial1
Certkiller1#
```


You work as a network technician at Certkiller .com. Study the information displayed in the exhibits. Based on the output of the Certkiller 1#show ip routecommand and the information displayed in the network topology exhibit, which of the following is a potential routing problem?
A.The use of summarization for discontiguous networks
B.the use of CIDR with a routing protocol that does not support it
C.the use of VLSM with a routing protocol that does not support it
D.The use of theno autosummarycommand
with a protocol that does not support summarization
E.the use of theip route 0.0.0.0 0.0.0.0command with a routing protocol that does not support it

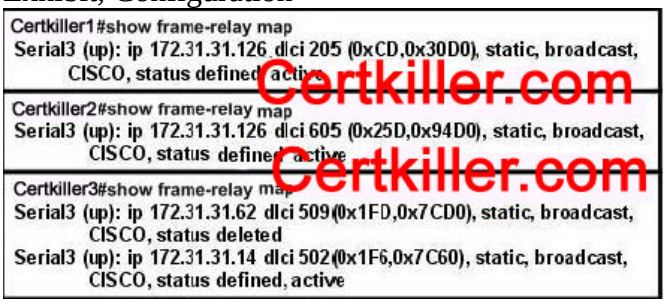
Answer: A

Explanation:
By default, EIGRP will automatically summarize networks at their network boundary, which can cause problems with

dis-contiguous IP networks.Since the IP routing table does indeed show a summary route to null 0, the default behavior
of EIGRP was not modified.In this network, it would be best to disable the automatic summarization feature of EIGRP.

QUESTION 713
The Certkiller frame relay network is shown in the diagram below:

Exhibit, Configuration

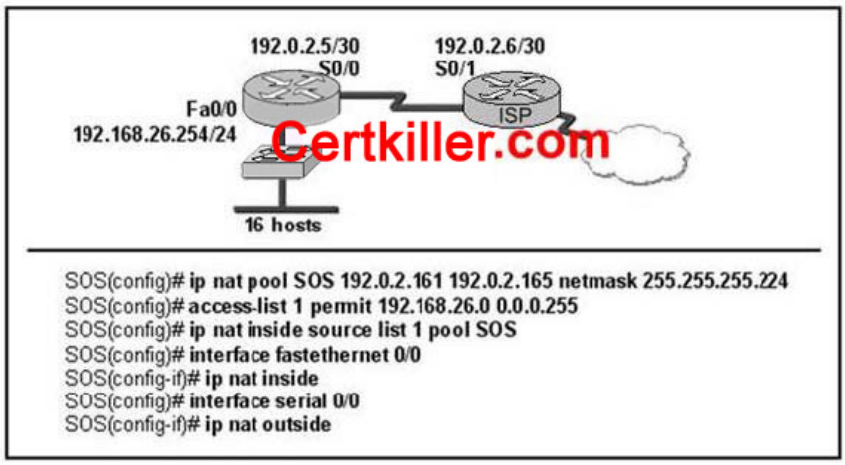


You work as network technician at Certkiller .com. The Certkiller .com Frame Relay network in the exhibit is not functioning OK.
What is the cause of the problem?
A.The Certkiller 1 router has the wrong LMI type configured.
B.Inverse ARP is providing the wrong PVC information to the Certkiller 1.
C.The S3 interface of the Certkiller 2 router has been configured with theframerelay encapsulation ietfcommand.
D.Theframerelay
mapstatement in the Certkiller 3 router for the PVC to Certkiller 2 is not correct.
E.The IP address on the serial interface of the Certkiller 3 router is configured incorrectly.

Answer: D

Explanation:
On serial 3 of Certkiller 3 we can see that there are 2 PVC's defined, but only one of them is working and is shown as
active.The frame relay map that was used to specify DLCI 509 was incorrect.Incorrect DLCI assignments that are
configured normally shown up as "deleted" in the frame relay maps.

QUESTION 714
The Certkiller Internet connection is displayed in the following diagram:



Refer to the network diagram and configuration shown in the graphic exhibit. The network at the SOS Company has just been configured for NAT a shown. Initial tests indicate that everything is functioning as intended. However, it is found that a numbered of hosts cannot access the Internet. What is the problem?
A.The access list is not correct.
B.There are not enough IP addresses available in the NAT address pool.
C.The wrong interface has been configured with theip nat insidecommand.
D.The IP address of the Fa0/0 interface is not usable.
E.The S0/1 interface of the ISP router is in the wrong subnet.

Answer: B

Explanation:
To define a pool of IP addresses for Network Address Translation (NAT), use theip nat poolcommand inglobal configuration mode. To remove one or more addresses from the pool, use thenoform of this command.
ip nat poolnamestart-ip end-ip{netmasknetmask|prefix-lengthprefix-length}[type rotary]
Syntax Description

name	**Name of the pool.**
startip	Starting IP address that defines the range of addresses in the address pool.
endip	Ending IP address that defines the range of addresses in the address pool.

In the configuration shown, the total number of addresses defined is from .161 to .165 but the figure shows a requirement of 16
hosts. So choice B is correct.Alternatively, we could have configured port address translation, or NAT overload, to provide
Internet access to the given number of hosts.

QUESTION 715
A Certkiller office's network topology is shown in the diagram below:

Host Certkiller A needs to communications with the email
server shown above.
What address will be placed on the destination address field of the frame when it leaves host Certkiller A?
A.The MAC address of Certkiller A
B.The MAC address of switch Certkiller 1
C.The MAC address of the E0 interface of the Certkiller 3 router.
D.The MAC address of the E1 interface of the Certkiller 3 router.
E.The MAC address of switch Certkiller 2
F.The MAC address of the email server

Answer: C

Explanation:
If the destination host is in the remote segment than the router will change the MAC address of the source to its own.
The inverse ARP protocol is by default on. Remember that IP address is not changed after forwarding. The MAC
address is changed after crossing each broadcast domain.

QUESTION 716
The Certkiller network topology is shown below:

You work as a network engineer at Certkiller .com. The topology of the Certkiller .com network is displayed in the exhibit. Host Certkiller 1 has established a connection with the HTTP server attached to interface E0 of the Certkiller B router.
Which of the following statements describe the information contained in protocol data units sentfromhost Certkiller 1 to this server? (Select three)
A.The destination port number in a segment header will have a value of 80.
B.The destination port number in a segment header will have a unique value greater than or equal to 1023.

C.The destination address of a frame will be the MAC address of the HTTP server interface.
D.The destination address of a frame will be the MAC address of the E0 interface of the Certkiller A router.
E.The destination IP address of a packet will be the IP address of the the E0 interface of the Certkiller A router.
F.The destination address of a packet will be the IP address of the HTTPServer

Answer: A, C, F

Explanation:
HTTP uses TCP port 80, making choice A correct.The source port will be chosen randomly, but not the destination
TCP port.The destination and MAC IP address will be left unchanged since communication is to the end device.This is
true for any TCP/IP communication:The destination MAC and IP do not change, although the source IP and MAC
address may.

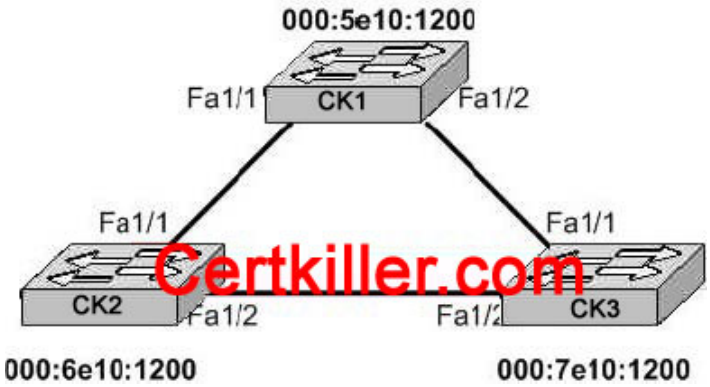
QUESTION 717
A Certkiller LAN is displayed in the diagram below:
Host Certkiller B sends a frame to host Certkiller C.
What will the switch do with the frame?
A.Drop the frame
B.Send the frame out all ports except port 0/2
C.Return the frame to host Certkiller B
D.Send an ARP request for host Certkiller C
E.Send an ICMP Host Unreachable message to Host Certkiller B
F.Record the destination MAC address in the switching table and send the frame directly to Host Certkiller C

Answer: B

Explanation:
An Ethernet switch appears to use the same logic as a transparent bridge. However, the internal logic of the switch is optimized for performing the basic function of choosing when to forward and when to filter a frame. Just as with a transparent bridge, the basic logic of a LAN switch is as follows:

Step 1	A frame is received.
Step 2	If the destination is a broadcast or multicast, forward on all ports.
Step 3	If the destination is a unicast and the address is not in the address table, forward on all ports.
Step 4	If the destination is a unicast and the address is in the address table, forward the frame out the associated port, unless the MAC address is associated with the incoming port.

QUESTION 718
Three Certkiller switches are connected together as shown in the diagram below:

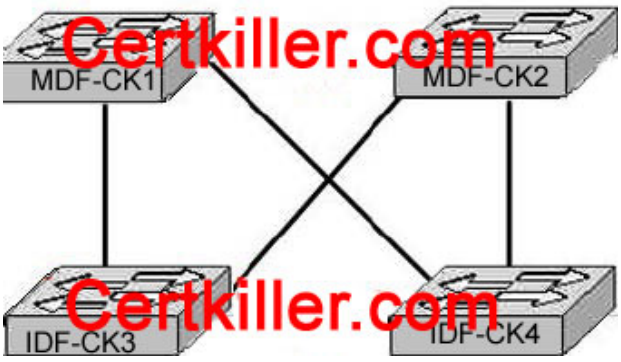


Refer to the exhibit. All switches have the default STP configuration and all links are Fast Ethernet. Which port on which switch will Spanning Tree place in blocking mode?
A.Switch CK1 -Port Fa1/1
B.Switch CK1 -PortFa1/2
C.Switch CK2 -PortFa1/2
D.Switch CK2 -PortFa1/1
E.Switch CK3 -PortFa1/1
F.Switch CK3 -PortFa1/2

Answer: F

Explanation: Switch TK---3Port FA 1/2
Switch CK1 will become theROOTBRIDGEbecause it has the lowest MAC address.
Its both ports will become Designated ports so choice A and B are wrong.
Next Election will be of ROOT PORTS. Port FA1/1 of both the switches CK2 and CK3 will become ROOT ports
because they have minimum path cost to reach the root bridge.
So, choices D and E are also wrong.
Next Election will be of Designated Ports on the segment connecting CK2 and CK3 . CK2 has lower MAC address so,
its port FA1/2 will become designated port and FA1/2 of CK3 will be placed in a BLOCKING state to avoid switching
LOOPS.

QUESTION 719
Four Certkiller switches are connected together as shown below:



The network shown in the exhibit was designed to provide reliability through redundancy. Both of the IDF switches, CK3 , and CK4 , are connected to both of the MDF switches, CK1 and CK2 . Which configuration scenario will provide a loopfree
switching environment?
A.Spanning Tree Protocol should be running on all switches.
B.Spanning Tree Protocol should be running on only the MDF switches CK1 and CK2 .
C.Spanning Tree Protocol should be running on only the IDF switches CK3 and CK4 .
D.Spanning Tree Protocol should be run only on the root bridge.
E.Spanning Tree Protocol is not needed in this network.

Answer: A

Explanation:
SpanningTree
Protocol (STP) prevents loops from being formed when switches or bridges are interconnected via multiple paths. SpanningTree
Protocol implements the 802.1D IEEE algorithm by exchanging BPDU messages with
other switches to detect loops, and then removes the loop by shutting down selected bridge interfaces. This algorithm
guarantees that there is one and only one active path between two network devices.
Reference:
http://www.cisco.com/en/US/tech/ CK3 89/ CK6 21/tsd_technology_support_protocol_home.html

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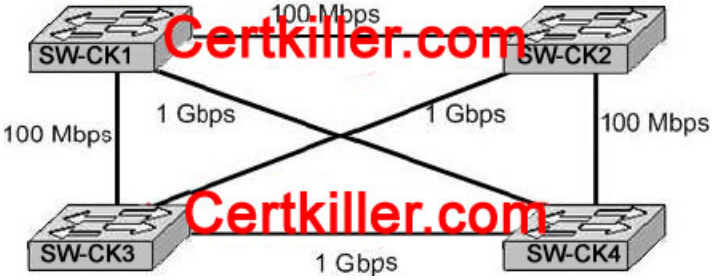
QUESTION 720
Four Certkiller switches are connected together as shown in the diagram below:

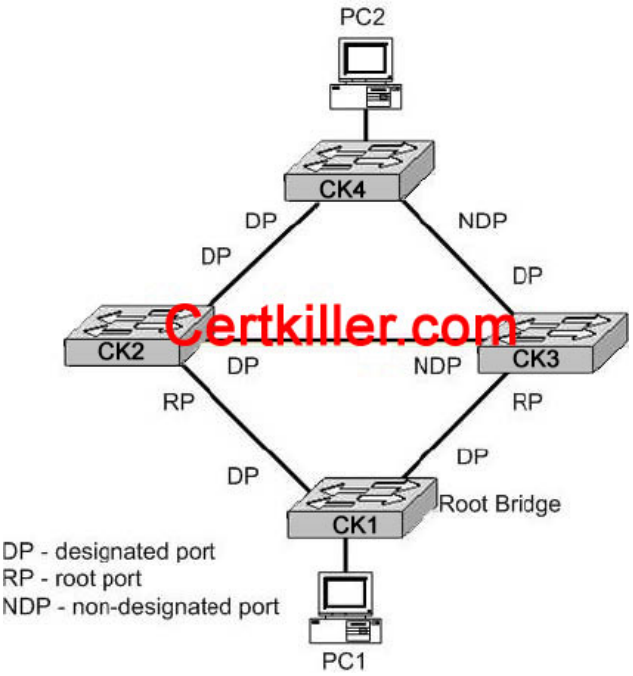


Refer to the exhibit. What is the purpose of the Spanning Tree Protocol that is operating in the exhibited switch topology?
A.To elect a particular switch as backup designated switch.
B.To have one active Layer 2 path through the switches network.
C.To select the best path to a remote destination that is on a different network.
D.To learn the MAC addresses of host attached to the switches network.
E.To distribute VLAN configuration information throughout the switched network.

Answer: B

Explanation:
Switches are connected in a way to provide full-mesh topology. So, a redundant path is provided in the case of a link or
switch failure.The STP is used to prevent frames from looping throughout the network.

QUESTION 721
Four Certkiller switches are connected together as shown in the network below:



Refer to the exhibit. Based on the Spanning Tree Protocol port states shown, over which path will frames flow when set from PC1 to PC2?
A. CK1 CK3 CK4
B. CK1 CK2 CK4
C. CK1 CK2 CK3 CK4
D. CK1 CK3 CK2 CK4

Answer: B

Explanation:
As shown in the diagram, port connecting CK3 to CK4 and CK2 to CK3 are nondesignated ports. It means that
be done via CK1 to CK2 to CK4 through ROOT and DESIGNATED ports.

QUESTION 722
The Certkiller network is displayed in the following diagram:

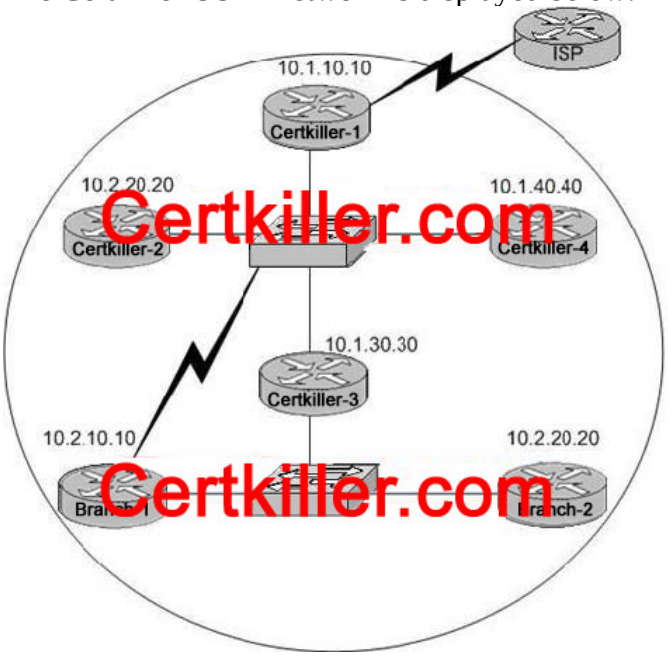
Which statements describe the interconnections displayed in the exhibit? Select two
A.Traffic from host Certkiller A to host Certkiller D will be collision free.

B.Traffic from host Certkiller C to host Certkiller G will be collision free.
C.Traffic from host Certkiller E to host Certkiller G will be collision free.
D.Host Certkiller B can be connected at full duplex.
E.Host Certkiller F can be connected at full duplex.

Answer: A, D

Explanation:
Switch connections have many benefits over the use of simple hubs, including full duplex operation and the segmentation
of collision domains.When using a switch, each PC can reside within its own collision domain, so communications
between two devices attached to a switch will be collision free.However, any station attached to a switch can still
experience collisions when communicating with a device attached to a hub.Hubs are shared devices, meaning all devices
attached to it reside within the same collision domain.

QUESTION 723
The Certkiller OSPF network is displayed below:

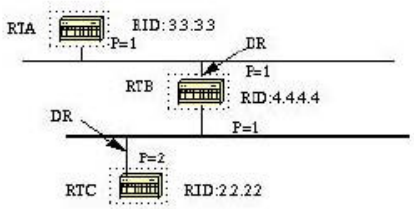


The internetwork infrastructure of Certkiller consists of a single OSPF area as shown in the graphic. There is concern that a lack of router resources is impeding internetwork performance. As part of examining the router resources, the OSPF DRs need to be known. All the router OSPF priorities are at the default and the router IDs are shown with each router.
Which routers are likely to have been elected as DR? (Choose two)
A. Certkiller 1
B. Certkiller 2
C. Certkiller 3
D. Certkiller 4

E.Branch1
F.Branch2

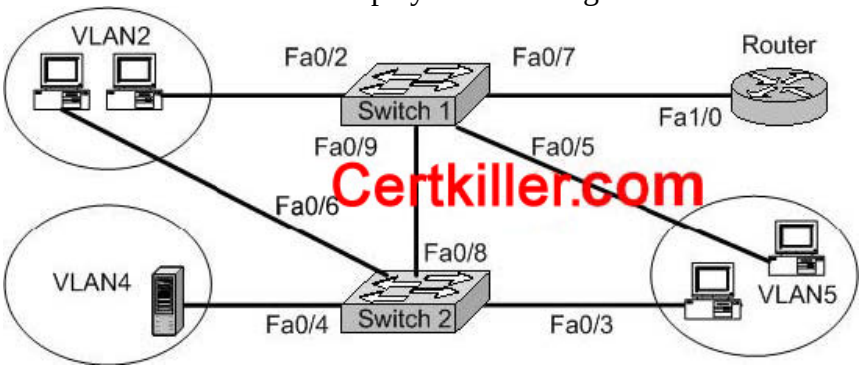
Answer: D, F

Explanation:
DR and BDR election is done via the Hello protocol. Hello packets are exchanged via IP multicast packets (Appendix
B) on each segment. The router with the highest OSPF priority on a segment will become the DR for that segment. The
same process is repeated for the BDR. In case of a tie, the router with the highest RID will win. The default for the
interface OSPF priority is one. Remember that the DR and BDR concepts are per multiaccess segment. Setting the ospf
priority on an interface is done using theip ospf priority<value>interface command.
A priority value of zero indicates an interface which is not to be elected as DR or BDR. The state of the interface with
priority zero will beDROTHER. The following diagram illustrates the DR election:



In the above diagram, RTA and RTB have the same interface priority but RTB has a higher RID. RTB would be DR on
that segment. RTC has a higher priority than RTB. RTC is DR on that segment.
The default RID is the highest IP address that is active in the router.Based on this info, router Certkiller -4 and Branch-2
will most likely be elected as the DR in their respective networks.

QUESTION 724
The Certkiller network is displayed in the diagram below:



A network associate is trying to understand the operation of the Certkiller network by studying the graphic.

All hosts are able to reach the enterprise server on VLAN4. The associate needs to determine which interfaces are functioning as a trunk ports. Which of the interfaces are trunks? (Choose two)
A.Switch1 -Fa0/2
B.Switch1 -Fa0/9
C.Switch2 -Fa0/3
D.Switch2 -Fa0/
E.Switch2 -Fa0/
F.Router -Fa1/

Answer: B, F

Explanation:
Trunks are only used on connections between two switches, or between routers and switches.Trunk ports are not used
on connections to end stations, such as servers or computer stations.In this example, only choice B and F are possible
trunks..

QUESTION 725
The Certkiller WAN is displayed below:

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

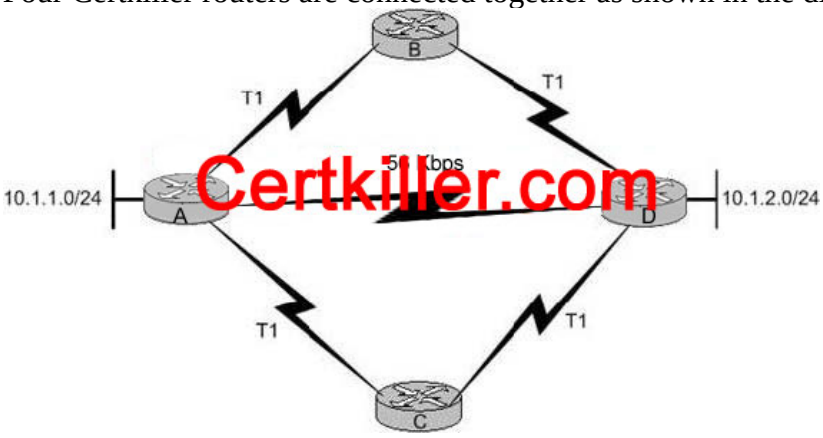
A. If RIPv2 is the routing protocol, the path will be from Certkiller 1 to Certkiller 3 to Certkiller 4 to Certkiller 5.
B. If RIPv2 is the routing protocol, the path will be from Certkiller 1 to Certkiller 5.
C. If EIGRP is the routing protocol, the path will be from Certkiller 1 to Certkiller 3 to Certkiller 4 to Certkiller 5.
D. If EIGRP is the routing protocol, the path will be from Certkiller 1 to Certkiller 2 to Certkiller 5.
E. If OSPF is the routing protocol, the path will be from Certkiller 1 to Certkiller 5.

Answer: B, C

Explanation:
It is because the RIP uses hop count as a metric. When using RIP the route with the shortest hop number is choosed.

EIGRP uses delay and load as a metric. The route through the Certkiller 3 has the best metric according to EIGRP.

QUESTION 726
Four Certkiller routers are connected together as shown in the diagram below:

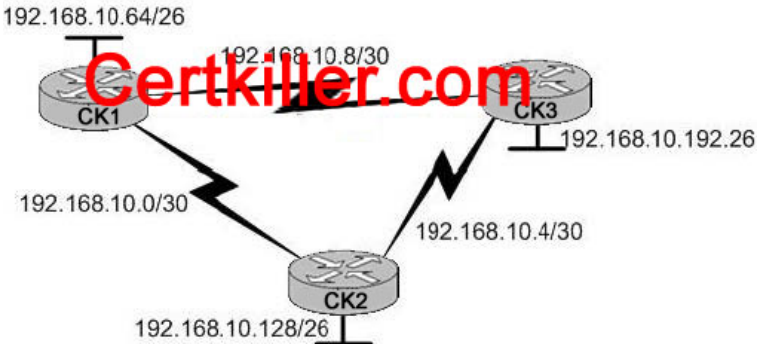


Refer to the exhibit. How will router A choose a path to the 10.1.2.0/24 network when different routing protocols are configured? (Choose three)
A.If RIPv2 is the routing protocol, only the path AD will be installed in the routing table by defaults.
B.If RIPv2 is the routing protocol, the equal cost paths ABD and ACD will be installed in the routing table by default.
C.If EIGRP is the routing protocol, only path AD will be installed in the routing table by default.
D.If EIGRP is the routing protocol, the equal cost paths ABD and ACD will be installed in the routing table by default.
E.If EIGRP and OSPF are both running on the network, the EIGRP paths will be installed in the routing table.
F.If EIGRP and OSPF are both running on the network, the OSPF paths will be installed in the routing table.

Answer: A, D, E

Explanation:
Path selection criteria for RIP and RIPv2 is Hop count so, Path AD will be used because of 1 hop count. Choice A is
correct.
EIGRP has lower administrative distance of 90 than OSPF 110 so EIGRP will be preferred. Choice E is correct.
EIGRP uses bandwidth for the path selection criteria. Paths ABD and ACD have same bandwidth so it will do load
balancing. Both paths will be used. Choice D is correct.

QUESTION 727
Three Certkiller routers are connected together as shown below:



CK3 #show ip route
Gateway of last resort is not set
192.168.10.0/24 is variably subnetted, 6 subnets, 2 subnets, 2 masks
D192.168.10/64/26 [90/2195456] via 192.168.10.9, 00:03:31, Serial0/0
D192.168.10.0/30 [90/2681856] via 192.168.10.9, 00:03:31, Serial0/0
C192.168.10.4/30 is directly connected, Serial 0/1
C192.168.10.8/30 is directly connected, Serial 0/0
C192.168.10.192/26 is directly connected, FastEthernet0/0
D192.168.10.128/26 [90/2195456] via 192.168.10.5,00:03:31, Serial 0/1
Refer to the exhibit directly above. Certkiller uses EIGRP as the routing protocol. What path will packets take from a host on the 192.168.10.192/26 network to a host on the LAN attached to router CK1 ?
A.The path of the packets will be CK3 to CK2 to CK1 .
B.The path of the packets will be CK3 to CK1 to CK2 .
C.The path of the packets will be both CK3 to CK2 to CK1 and CK3 and CK1 .
D.The path of the packets will be CK3 to CK1 .

Answer: D

Explanation:
Choice D is correct because in the Routing Table of CK3 , Path to reach 192.168.10.64/26 is via 192.168.10.9 which
is the addresson the serial interface connecting CK1 and CK3 .

QUESTION 728
What functions do routers perform in a network? (Choose two).

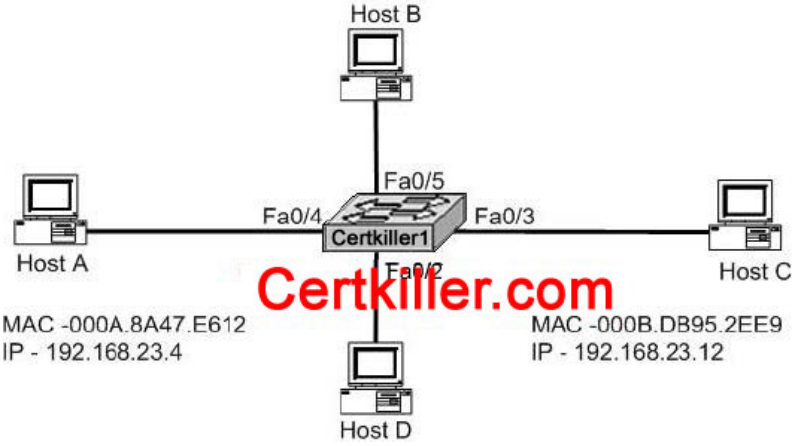
A. Packet Switching
B. Access Layer Security
C. Path Selection.
D. VLAN Membership Assignment.
E. Bridging between LAN segments.
F. Microsegmentation of Broadcast Domains.

Answer: A, C

Explanation:
he primary functions of anrouter are: Packet Switching and Path Selection.It is the routers job to determine the

best
method for delivering the data, and switching that data as quickly as possible.

QUESTION 729
A simple Certkiller network is shown below:



Refer to the exhibit. Certkiller 1 has just been restarted and has passed the POST routine. When Host A begins communicating with Host C, what will the switch do?
A. Certkiller 1 will add 192.168.23.4 to theCAMtable.
B. Certkiller 1 will add 192.168.23.12 to theCAMtable.
C. Certkiller 1 will add 000A.8A47.E612 to theCAMtable.
D. Certkiller 1 will add 000B.DB95.2EE9 to theCAMtable.

Answer: C

Explanation:
When the power of a switch is turned on, its MAC address table is empty. Switch starts building itsCAMtable on the
base of source MAC addresses. When host A will start communication with host C, switch will enter the source MAC
of Host A in its switching table and will flood the message.

QUESTION 730
Switches CK1 and CK2 are connected as shown below:

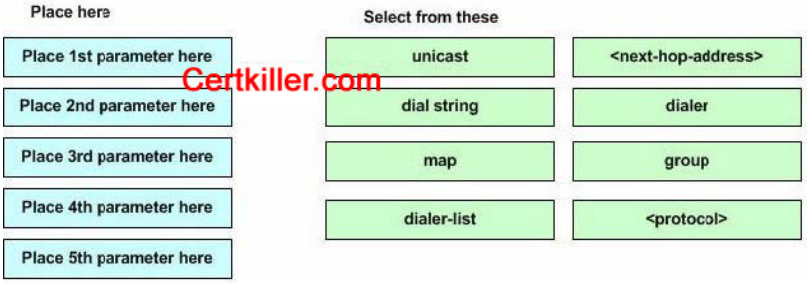
Refer to the exhibit. Which ports could safely be configured with PortPast? (Choose two)
A.Switch CK1 - port Fa1/2
B.Switch CK2 - port Fa1/2
C.Switch CK1 - port Fa1/3
D.Switch CK2 - port Fa1/3

E.Switch CK1 - port Fa1/1

Answer: C, D

Explanation:
1.Immediately brings an interface configured as an access or trunk port to the forwarding state from a blocking state,
bypassing the listening and learning states
2.Normally used for single server/workstation can be enabled on a trunk
So, Port fast can only be enabled to a switch port attaching to workstation or a server.Reference:
http://www.911networks.com/node/273

QUESTION 731
Place the parameters in the correct sequence to configure dial-on-demand routing (DDR) on an ISDN BRI interface.

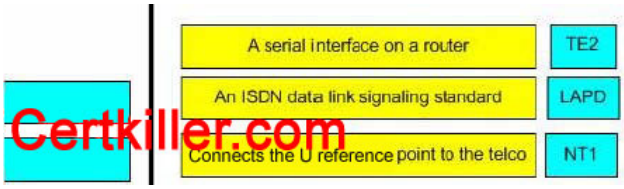


Answer:

Explanation:
Place 1st- next hop address
Place 2nd- Dialerlist
Place 3rd- protocol
Place 4th- DialerString
Place 5th- group
Reference:
CCNA Self-Study CCNA ICND exam certification Guide (Cisco Press, ISBN 1-58720-083X) Page 342

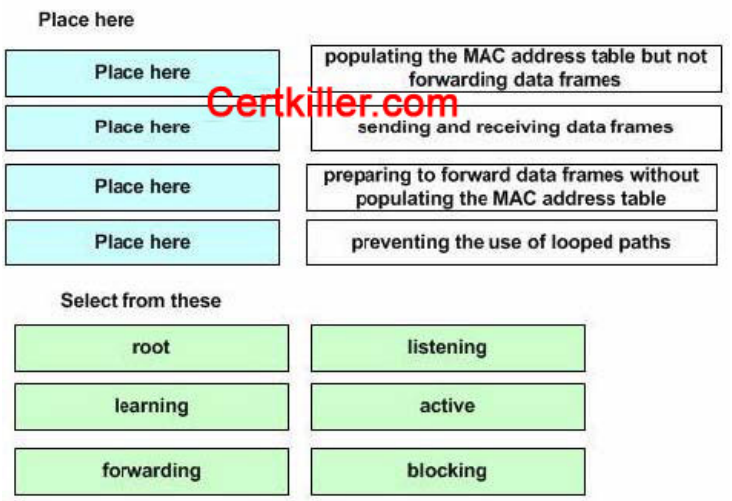
QUESTION 732
Match the ISDN term on the left to the appropriate description on the right. Please note: Not all options on the left apply.

Answer:

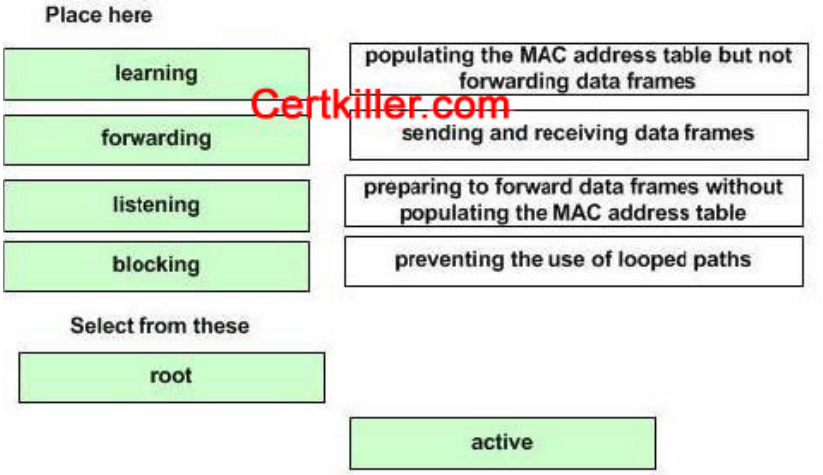


Explanation:
*LAPD -provides the data link protocol that allows delivery of messages across that D-channel to the local switch.
*LAPB -Protocol and is designed primarily to satisfy the signaling requirements of ISDN basic access. It is defined by
ITU-T Recommendations Q.920 and Q.921.
*TE1- ISDN -capable four-wire cable. Understands signaling and 2B=D. Uses an S reference point.
*ITU.T.430 -Defines connectors, encoding, framing, and reference points.
*TE2 -Equipment that does not understand ISDN protocols and specifications (no ISDN awareness). Uses an R reference point, typically an RS-232 or V.35 cable, to connect to a TA.
*NT1 -CPE equipment inNorth America. Connects with a U reference point (two-wire) to the telco.
Reference:
CCNA Self-Study CCNA ICND exam certification Guide (Cisco Press, ISBN 1-58720-083-X) Page Chapter 10

QUESTION 733
You are a trainee technician at Certkiller , Inc. You need to display your knowledge of the SpanningTree algorithm.
Connect the Spanning-Tree Protocol states with the correct functions.
(Not all options are used.)

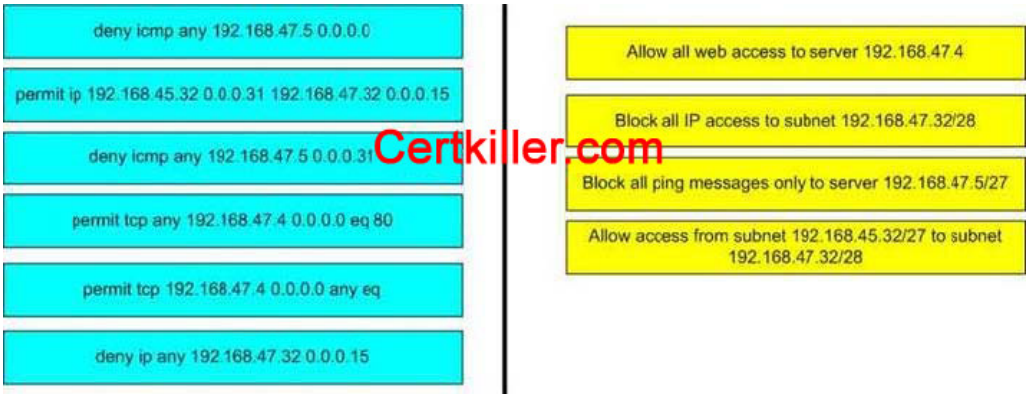


Answer:

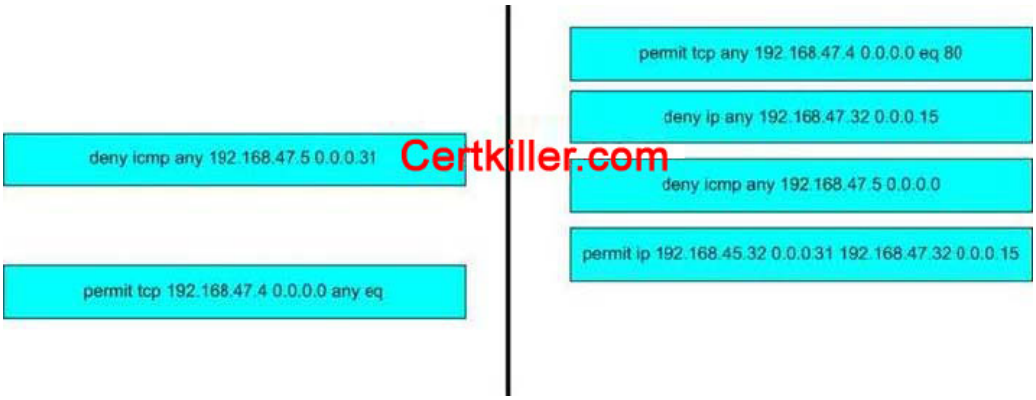


Explanation:
*Listening -Listens to incoming Hello messages to ensure that there are no loops, but does not forward traffic or learn
MAC addresses on the interface.
*Learning -learns MAC addresses and builds a filter table but does not forward frames.
*Forwarding -Sends and receives all data on the bridged port.
*Blocking -are used to prevent network loops.
Reference:
CCNA Study guide Second Edition (Sybex, Todd Lammle) page 82

QUESTION 734
On the left are access list conditions and on the right design goals. Match up the corresponding pairs.
(Please note: Not all options are used)



Answer:



QUESTION 735
Error detection schemes check errors in the data packets by reading which field frame IDs?

A. MTU
B. PDU
C. FCS
D. Flag
E. MAC
F. BRI

Answer: C

Explanation:
Frame Check Sequence (FCS) field
Ethernet uses a CyclicRedundancyCheck (CRC) algorithm to detect transmission errors. The FrameCheckSequence field is filled (using a CRC) by the sending host. If the receiving host detects a wrong CRC, it will throw away that packet.
Incorrect Answers:

A. MTU is the Maximum Transmission Unit, which is set to 1500 bytes by default for ethernet packets.
B, D. This is not part of the data packet.
E. This is the Media Access Control, which is used most often to describe the layer 2 physical address of a

device.
F. BRI is related to an ISDN connection, describing a ciircuit with 2 bearer channels and a single data channel. It has absolutely nothing to do with error correction in a data packet.

QUESTION 736
What does a Layer 2 switch do if it receives a frame with destination MAC address that is not found in its MAC address table?

A. The frame is dropped.
B. The frame is addressed with a broadcast MAC address and sent out all ports.
C. The frame is sent out all ports except the receiving port.
D. An ARP request is sent out all ports except the receiving port.
E. A destination unreachable message is sent back to the source address.

Answer:

Explanation:

QUESTION 737
What does a Layer 2 switch use to decide where to forward a received frame?

A. source MAC address
B. source IP address
C. source switch port
D. destination IP address
E. destination port address
F. destination MAC address

Answer:

Explanation:

QUESTION 738
What are the possible trunking modes for a switch port? (Choose three.)

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

Answer:

Explanation:

QUESTION 739
A network administrator wants to control which user hosts can access the network based on their MAC address. What will prevent workstations with unauthorized MAC addresses from connecting to the network through a switch?

A. BPDU
B. Port security
C. RSTP
D. STP
E. VTP
F. Blocking mode

Answer:

Explanation:

QUESTION 740
A CCNA candidate is working on a 2600 Cisco router. The person needs to verify that the configuration register is set to boot the router IOS from flash memory and use the commands saved in the startup-configuration file. Which command will display this information, and what is the configuration register value that should be displayed?

A. show startup-configand 0x2142
B. show versionand 0x2102
C. show flashand 0x2102
D. show versionand 0x2142
E. show running-configand 0x2142
F. show flashand 0x2142

Answer:

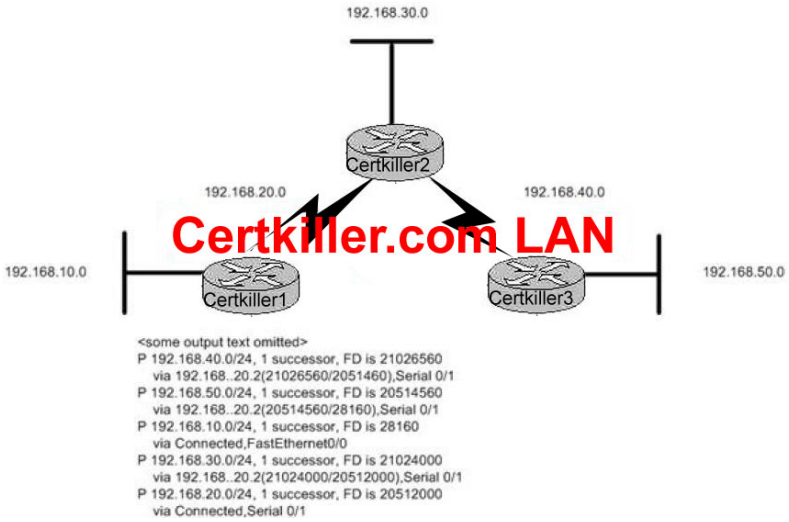
QUESTION 741
Which wild card mask will enable a network administrator to permit access to the Internet for only hosts that are assigned an address in the range 192.168.8.0 through 192.168.15.255?

A. 0.0.0.0
B. 0.0.0.255
C. 0.0.255.255
D. 0.0.7.255
E. 0.0.3.255

Answer:

Explanation:

QUESTION 742
Exhibit:



Refer to the graphic. Which of the routers shown could produce the output shown?

A. Certkiller 1
B. Certkiller 2
C. Certkiller 3
D. Cannot be determined from the information shown

Answer:

Explanation:

QUESTION 743
A workgroup switch is configured with all ports assigned to VLAN2. In addition, all ports are configured as full-duplex FastEthernet. What is the effect of adding switch ports to a new VLAN on this switch?

A. The additions will create more collision domains.
B. IP address utilization will be more efficient.
C. More bandwidth will be required than was needed previously.
D. An additional broadcast domain will be created.
E. The possibility that switching loops will occur will increase dramatically.

Answer:

Explanation: