CCNA 640-802 Bible - Interpret The output of Various Show and Debug on Switch

1. Refer to the exhibit. 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?

```
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
```

A: Switch-1 will drop the data because it does not have an entry for that MAC address. B: Switch-1 will flood the data out all of its ports except the port from which the data originated. C: Switch-1 will send an ARP request out all its ports except the port from which the data originated. D: Switch-1 will forward the data to its default gateway. **Correct Answers: B** Explanation: Switches work as follows: * Switches learn the MAC addresses of PCs or workstations that are connected to their switch ports by examining the source address of frames that are received on that port. * Machines may have been removed from a port, turned off, or moved to another port on the same switch or a different switch. * This could cause confusion in frame forwarding. * The MAC address entry is automatically discarded or aged out after 300 seconds. * If there is not MAC address of destination host in MAC table, switch sends broadcast to all port except the source to find out the destination host. In output there is no MAC address of give host so switch floods to all ports except the source port. 2. Refer to the graphic. Computer 1 is consoled into switch A. Telnet connections and pings run from the command prompt on switch A fail. Which of the following could cause this problem?

```
A# show run
hostname A
<<output omitted>>
!interface FastEthernet0/1
 switchport mode trunk
 no ip address
!
<<output omitted>>
interface Vlan1
 no ip address
 no ip route-cache
!
<<output omitted>>
```

A: Switch A is not directly connected to router JAX. B: Switch A does not have a default gateway assigned. C: Switch A does not have a CDP entry for switch B or router JAX. D: Switch A does not have an IP address. E: Port 1 on switch A should be an access port rather than a trunk port. **Correct Answers: D** Explanation: This question is to examine the network failure troubleshooting. The command Ping is used to test network connectivity. However, the premise of using the ping command is to test the IP address configuration at both ends. Otherwise, it is impossible to test by the command Ping. We can learn from the above-mentioned output information that fa0 / 1 has not been configured with IP address, so the command ping failed to work. 3. Refer to the exhibit. A network administrator is unable to connect remotely to a device and initiates a console session. The administrator executes the show ip interface brief command. Why did the remote connection fail?

```
ORL# show ip interface brief
Interface         IP-Address     OK?  Method  Status                 Protocol
FastEthernet0/1   unassigned     YES  manual  up                     up
FastEthernet0/2   unassigned     YES  manual  up                     up
<output omitted>
GigabitEthernet1/1 unassigned    YES  manual  down                   down
GigabitEthernet1/2 unassigned    YES  manual  down                   down
Vlan1             192.168.1.100  YES  manual  administratively down  down
```

A: The Gigabit Ethernet interfaces are not up B: VLAN1 is shut down. C: The switch needs to have a clock rate entered on one of its interfaces. D: The switch does not have a management IP address assigned. **Correct Answers: B** Explanation: The virtual LAN Interface can be enabled or disabled with shutdown/no shutdown command. If you interface is down, it will display administratively down status. You can bring up an interface having administratively down interface using no shutdown command. Since the only IP configured on the switch belongs to VLAN 1, it needs to be enabled for you to remotely access the device. 4. Refer to the exhibit. The lines of SwitchX are configured as shown. Which statement correctly describes the effect of this configuration?

```
SwitchX# show running-config
!
.
<output omitted>
.
!
line con 0
line vty 0 4
 password dangerous
 login
 transport input telnet
line vty 5 15
 login
!
end
www.ciscobible.net
```

A: The Telnet protocol is supported only on lines 0 through 4. B: A password challenge protects all virtual terminal lines. C: The console line cannot be used until it is configured. D: The SSH protocol is supported on lines 5 through 15. **Correct Answers: B** Explanation: According to the information about show running-config above, we can see that the switch has been configured with VTP password protection, the password is dangerous. The ?transport input x? command, where x is the protocol that you want to allow, such as Telnet. The command allows the granularity of permitting only certain protocols to cross the asynchronous lines.