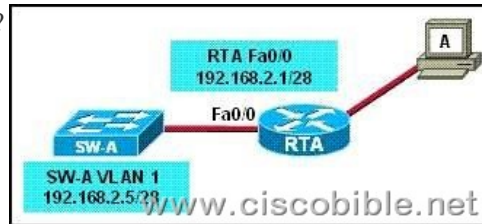# CCNA 640-802 Bible - Perform and Verify Initial Switch Configuration

1. Refer to the exhibit. Workstation A must be able to telnet to switch SW-A through router RTA for management purposes. What must be configured for this connection to be successful?

A: VLAN 1 on RTA B: default gateway on SW-A C: IP routing on SW-A D: cross-over cable connecting SW-A and RTA **Correct Answers: B** Explanation: In order for a switch to send traffic to a destination that is not located directly, as is the case in our example, a default gateway must be configured on the switch. This will enable it to send the traffic to router RTA where it can be routed to host A. **Incorrect Answers:** A: This is the default VLAN used and does not need to be configured. C: IP routing does not need to be enabled, just the default gateway. D: A cross over cable is used to connect two switches or two routers together back to back, but a straight through cable should be used when connecting a switch to a routers. 2. Refer to the topology and configuration information shown in the graphic. The router has been configured to provide communication between the VLANs. Which IOS commands are required to configure switch port fa0/1 to establish a link with router R1 using the IEEE standard protocol? (Choose three.)
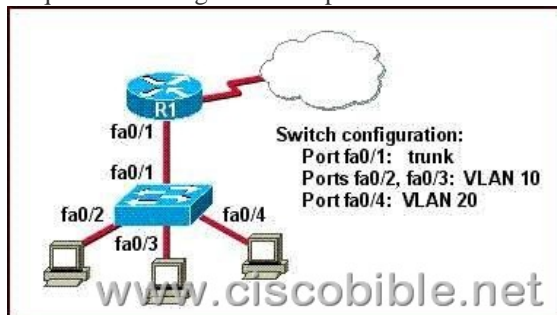
A:Switch(config)# interface fastethernet 0/1 B:Switch(config-if)# switchport mode access C:Switch(config-if)# switchport mode trunk D:Switch(config-if)# switchport access vlan 1 E:Switch(config-if)# switchport trunk encapsulation isl F:Switch(config-if)# switchport trunk encapsulation dot1q **Correct Answers: A, C, F** Explanation: Before you can begin, you have to get into the interface. Answer choice A is the only command in the selection that puts the IOS into interface mode. Once in the interface you have to set it to trunk mode, so choice C is correct. The switch port needs encapsulation. Answer choice E give you the choice of ISL and choice F gives you dot1q. Since the diagram suggests that the router is using 802.1Q, you must also use dot1q. Incorrect Answers: B, D: We wish to set up a trunk over this connection, not set up a single VLAN. E. Both ends of the trunk must use the same trunk encapsulation type. Since the diagram shows that the router is set to 802.1Q, the switch must be set up similarly. 3. Which are valid modes for a switch port used as a VLAN trunk? (Choose three.) A:transparent B:auto C:on D:desirable E:blocking F:forwarding **Correct Answers: B, C, D** Explanation: Here, the trunk link is identified by its physical location as the switch module number andport number. The trunking mode can be set to any of the following: On-This setting places the port in permanent trunking mode. The corresponding switch port at the other end of the trunk should be similarly configured because negotiation is not allowed. The encapsulation or identification mode should also be manually configured. Off-This setting places the port in permanent non-trunking mode.The port will attempt to convert the link to non-trunking mode. Desirable-Selecting this will actively attempt to convert the link into trunking mode. If the far end switch port is configured to on, desirable, or auto mode, trunking will be successfully negotiated. Auto-The port will be willing to convert the link into trunking mode.If the far end switch port is configured to on or desirable, trunking will be negotiated. By default, all Fast Ethernet and Gigabit Ethernet links that are capable of negotiating using DTP are configured to this mode. Because of the passive negotiation behavior, the link will never become a trunk, if both ends of the link are left to the auto default. Nonegotiate-The port is placed in permanent trunking mode,but no DTP frames are generated for negotiation. The far end switch port must be manually configured for trunking mode. 4. 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?
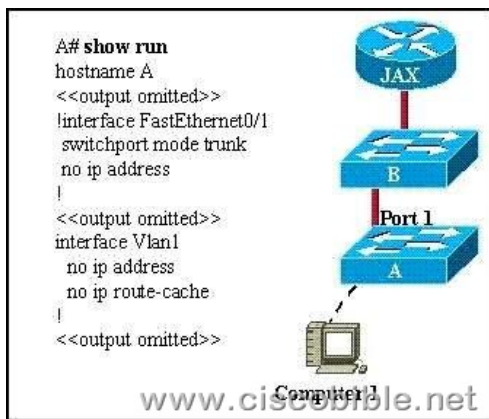
A: Switch A is not directly connected to router JAX. B: Switch A does not have a default gateway assigned. C: Switch A does not have a CDP entry for switch B or router JAX. D: Switch A does not have an IP address. E: Port 1 on switch A should be an access port rather than a trunk port. **Correct Answers: B D** Explanation: 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 in order for 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. **5.** 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?

A: Switch1(config)# line con0 Switch1(config-line)# password cisco Switch1(config-line)#login B: Switch1(config)# interface fa0/1 Switch1(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 Switch1(config-if)# duplex full Switch1(config-if)# speed 100 E: Switch1(config)# interface fa0/1 Switch1(config-if)# switchport mode trunk **Correct Answers: C** Explanation: To route traffic to other vlans, we need to enter the IP address of the next-hop router interface that is directly connected to the switch where a default gateway is being configured. The default gateway receives IP packets with unresolved destination IP addresses from the switch. Once the default gateway is configured, the switch will have connectivity to the remote networks with which a host needs to communicate.