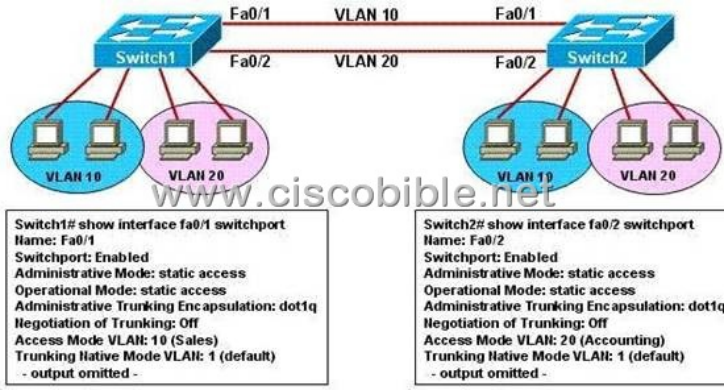
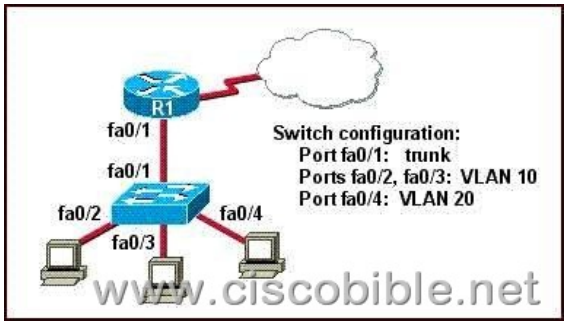
CCNA 640-802 Bible - Configure,Verify and Troubleshoot Trunking

1. When a new trunk is configured on a 2950 switch, which VLANs by default are allowed over the trunk link? A: no VLANs B: all VLANs C: only VLANs 1 - 64 D: only the VLANs that are specified when creating the trunk **Correct Answers: B** Explanation: Trunk ports send and receive information from all VLANs by default, and if a frame is untagged, it's sent to the management VLAN. This applies to the extended range VLANs as well. But we can remove VLANs from the allowed list to prevent traffic from certain VLANs from traversing a trunked link. Here is example: RouterA(config)#int f0/1 RouterA(config-if)# switchport mode trunk RouterA(config-if)#switchport trunk allowed vlan VLANID RouterA(config-if)#switchport trunk allowed vlan remove VLANID 2. When a new trunk link is configured on an IOS based switch, which VLANs are allowed over the link? A: By default, all defined VLANs are allowed on the trunk. B: Each single VLAN, or VLAN range, must be specified with the switchport mode command. C: Each single VLAN, or VLAN range, must be specified with the vtp domain command. D: Each single VLAN, or VLAN range, must be specified with the vlan database command. **Correct Answers: A** Explanation: The question does not state that there are multiple VTP Domains meaning that all defined VLANs are allowed on the trunk until a vtp domain command is issued. 3. Which protocol provides a method of sharing VLAN configuration information between switches? A: VTP B: STP C: ISL D: 802.1Q E: VLSM **Correct Answers: A** Explanation: The basic goals of VLAN Trunking Protocol (VTP) are to manage all configured VLANs across a switched internetwork and to maintain consistency throughout that network. VTP allows an administrator to add, delete, and rename VLANs-information that is then propagated to all other switches in the VTP domain. 4. Refer to the exhibit. An organization connects two locations, supporting two VLANs, through two switches as shown. Inter-VLAN communication is not required. The network is working properly and there is full connectivity. The organization needs to add additional VLANs, so it has been decided to implement VTP. Both switches are configured as VTP servers in the same VTP domain. VLANs added to Switch1 are not learned by Switch2. Based on this information and the partial configurations in the exhibit, what is the problem?



A: Switch2 should be configured as a VTP client. B: VTP is Cisco proprietary and requires a different trunking encapsulation. C: A router is required to route VTP advertisements between the switches. D: STP has blocked one of the links between the switches, limiting connectivity. E: The links between the switches are access links. **Correct Answers: E** Explanation: A trunk link is a special connection; the key difference between an ordinary connection (access port) and a trunk port is that although an Access port is only in one VLAN at a time, a trunk port has the job of carrying traffic for all VLANs from one switch to another. Any time you connect a switch to another switch and want to make sure that all VLANs will be carried across the switches, you want to make it a trunk. To carry on the data frames for all VLANs, you need to create the Trunk link on switch port as well as you need to select the encapsulation type. Switchport mode trunk Switchport trunk encapsulation dot1q or isl In the above topology the switches are connected on access ports. Making them trunk ports should solve this issue. 5. Which of the following are VLAN frame encapsulation types that may be configured on a Catalyst switch? (Choose two.) A. VTP B. ISL C. CDP D. 802.1Q Answer: B, D Explanation: The two VLAN trunking encapsulation types are: Inter-Switch Link (ISL): This is proprietary to Cisco switches, and it's used for Fast Ethernet and Gigabit Ethernet links only. ISL routing can be used on a switch port, router interfaces, and server interface cards to trunk a server. ISL lets you explicitly tag VLAN information onto an Ethernet frame. This tagging information allows VLANs to be multiplexed over a trunk link through an external encapsulation method, which allows the switch to identify the VLAN membership of a frame over the trunked link. IEEE 802.1Q: Created by the IEEE as a standard method of frame tagging, this actually inserts a field into the frame to identify the VLAN. If you're trunking between a Cisco switched link and a different brand of switch, you have to use 802.1Q for the trunk to work. 6?Which three of these statements regarding 802.1Q trunking are

correct? (Choose three.) A:802.1Q native VLAN frames are untagged by default. B:802.1Q trunking ports can also be secure ports. C:802.1Q trunks can use 10 Mb/s Ethernet interfaces. D:802.1Q trunks require full-duplex, point-to-point connectivity. E:802.1Q trunks should have native VLANs that are the same at both ends. **Correct Answers: A, C, E** 7. 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: Creating this trunk link is a two step process. First you have to set the switchport mode to trunk, and then you configure the encapsulation. The giveaway on this question is the fact that to create a trunk on an interface, you have to be in interface configuration mode. So switchport mode trunk sets the trunk, and switchport trunk encapsulation dot1q sets the encapsulation.(IEEE 802.1Q: Created by the IEEE as a standard.)