

## CCNA 2 Chapter 3 v5.0 Exam Answers 2015 (100%)

### 1. Which two statements are true about VLAN implementation? (Choose two.)

- The size of the collision domain is reduced.
- The number of required switches in a network decreases.
- **VLANs logically group hosts, regardless of physical location.**
- The network load increases significantly because of added trunking information.
- **Devices in one VLAN do not hear the broadcasts from devices in another VLAN.**

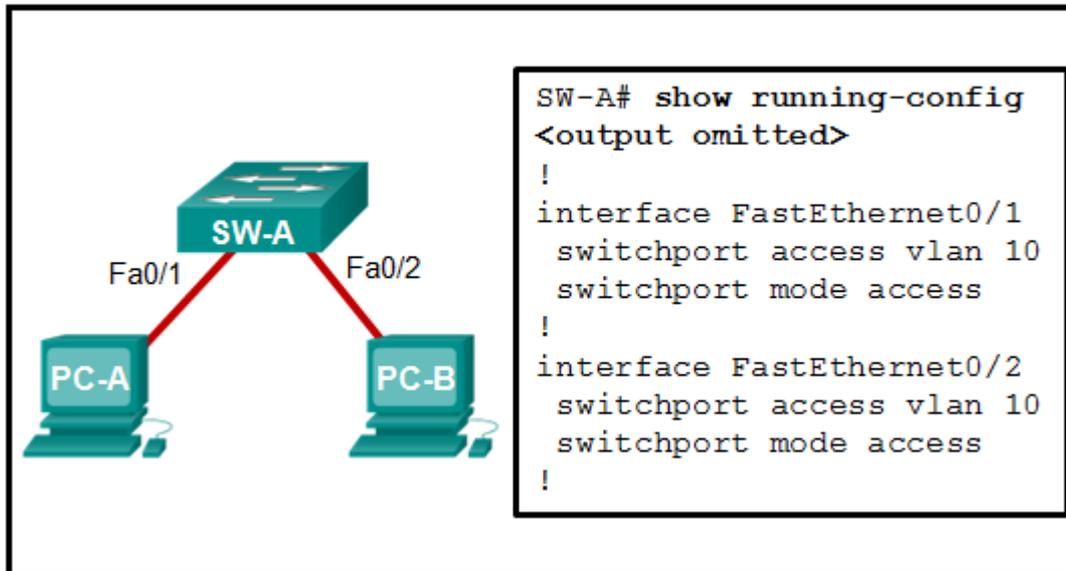
### 2. Which three statements accurately describe VLAN types? (Choose three).

- **A management VLAN is any VLAN that is configured to access management features of the switch.**
- A data VLAN is used to carry VLAN management data and user-generated traffic.
- **After the initial boot of an unconfigured switch, all ports are members of the default VLAN.**
- **An 802.1Q trunk port, with a native VLAN assigned, supports both tagged and untagged traffic.**
- Voice VLANs are used to support user phone and e-mail traffic on a network.
- VLAN 1 is always used as the management VLAN.

### 3. A network administrator is determining the best placement of VLAN trunk links. Which two types of point-to-point connections utilize VLAN trunking? (Choose two.)

- **between two switches that utilize multiple VLANs**
- between a switch and a client PC
- **between a switch and a server that has an 802.1Q NIC**
- between a switch and a network printer
- between two switches that share a common VLAN

### 4. Refer to the exhibit. A frame is traveling between PC-A and PC-B through the switch. Which statement is true concerning VLAN tagging of the frame?



CCNA 2 Chapter 3 Exam Answer 001 (v5.02, 2015)

- A VLAN tag is added when the frame leaves PC-A.
- A VLAN tag is added when the frame is accepted by the switch.
- A VLAN tag is added when the frame is forwarded out the port to PC-B.
- **No VLAN tag is added to the frame.**

**5. What is the effect of issuing a *switchport access vlan 20* command on the Fa0/18 port of a switch that does not have this VLAN in the VLAN database?**

- The command will have no effect on the switch.
- **VLAN 20 will be created automatically.**
- An error stating that VLAN 20 does not exist will be displayed and VLAN 20 is not created.
- Port Fa0/18 will be shut down.

**6. Port Fa0/11 on a switch is assigned to VLAN 30. If the command *no switchport access vlan 30* is entered on the Fa0/11 interface, what will happen?**

- Port Fa0/11 will be shutdown.
- An error message would be displayed.
- **Port Fa0/11 will be returned to VLAN 1.**
- VLAN 30 will be deleted.

**7. Which command is used to remove only VLAN 20 from a switch?**

- delete vlan.dat
- delete flash:vlan.dat
- **no vlan 20**

- no switchport access vlan 20

**8. Which command displays the encapsulation type, the voice VLAN ID, and the access mode VLAN for the Fa0/1 interface?**

- show vlan brief
- **show interfaces Fa0/1** switchport
- show mac address-table interface Fa0/1
- show interfaces trunk

**9. What must the network administrator do to remove Fast Ethernet port fa0/1 from VLAN 2 and assign it to VLAN 3?**

- Enter the no vlan 2 and the vlan 3 commands in global configuration mode.
- **Enter the switchport access vlan 3 command in interface configuration mode.**
- Enter the switchport trunk native vlan 3 command in interface configuration mode.
- Enter the no shutdown in interface configuration mode to return it to the default configuration and then configure the port for VLAN 3.

**10. A Cisco Catalyst switch has been added to support the use of multiple VLANs as part of an enterprise network. The network technician finds it necessary to clear all VLAN information from the switch in order to incorporate a new network design. What should the technician do to accomplish this task?**

- Erase the startup configuration and reboot the switch.
- Erase the running configuration and reboot the switch.
- **Delete the startup configuration and the vlan.dat file in the flash memory of the switch and reboot the switch.**
- Delete the IP address that is assigned to the management VLAN and reboot the switch.

**11. A Cisco switch currently allows traffic tagged with VLANs 10 and 20 across trunk port Fa0/5. What is the effect of issuing a**

*switchport trunk allowed vlan 30*  
**command on Fa0/5?**

- It allows VLANs 1 to 30 on Fa0/5.
- It allows VLANs 10, 20, and 30 on Fa0/5.
- **It allows only VLAN 30 on Fa0/5.**
- It allows a native VLAN of 30 to be implemented on Fa0/5.

**12. What VLANs are allowed across a trunk when the range of allowed VLANs is set to the default value?**

- **All VLANs will be allowed across the trunk.**
- Only VLAN 1 will be allowed across the trunk.

- Only the native VLAN will be allowed across the trunk.
- The switches will negotiate via VTP which VLANs to allow across the trunk.

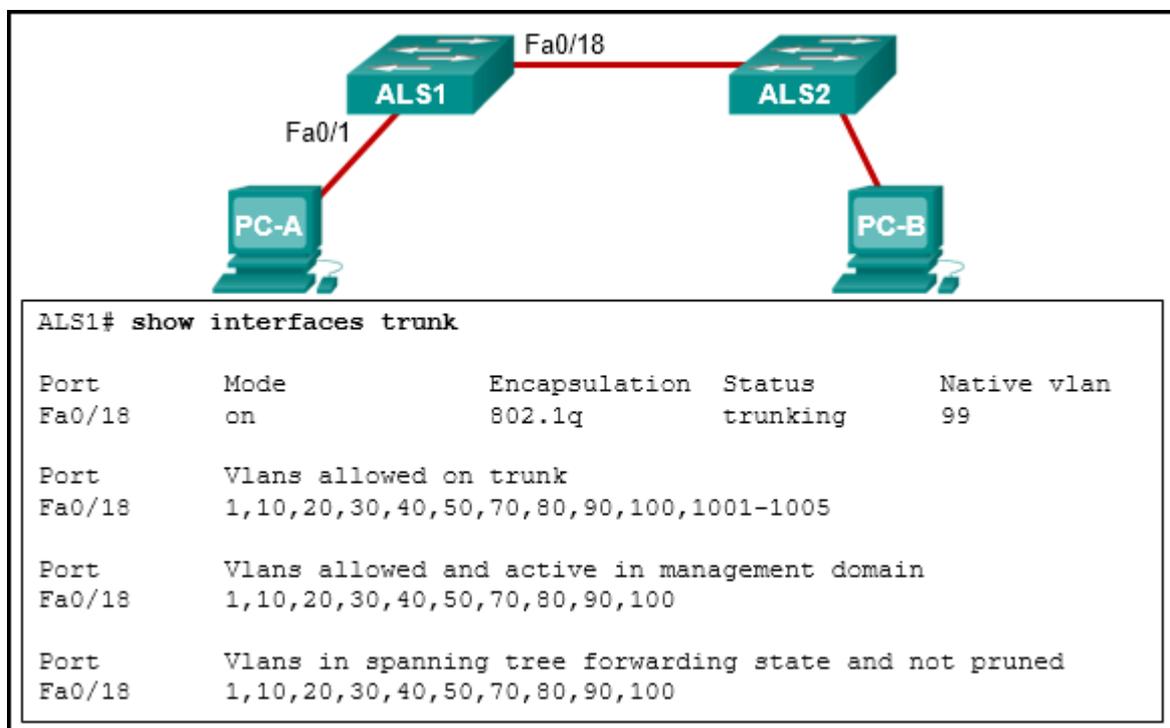
**13. Which command should the network administrator implement to prevent the transfer of DTP frames between a Cisco switch and a non-Cisco switch?**

- S1(config-if)# switchport mode trunk
- **S1(config-if)# switchport nonegotiate**
- S1(config-if)# switchport mode dynamic desirable
- S1(config-if)# switchport mode access
- S1(config-if)# switchport trunk allowed vlan none

**14. Under which two occasions should an administrator disable DTP while managing a local area network? (Choose two.)**

- **when connecting a Cisco switch to a non-Cisco switch**
- when a neighbor switch uses a DTP mode of dynamic auto
- when a neighbor switch uses a DTP mode of dynamic desirable
- **on links that should not be trunking**
- on links that should dynamically attempt trunking

**15. Refer to the exhibit. PC-A and PC-B are both in VLAN 60. PC-A is unable to communicate with PC-B. What is the problem?**



*CCNA 2 Chapter 3 Exam Answer 002 (v5.02, 2015)*

- The native VLAN should be VLAN 60.

- The native VLAN is being pruned from the link.
- The trunk has been configured with the switchport nonegotiate command.
- **The VLAN that is used by PC-A is not in the list of allowed VLANs on the trunk.**

**16. Refer to the exhibit. DLS1 is connected to another switch, DLS2, via a trunk link. A host that is connected to DLS1 is not able to communicate to a host that is connected to DLS2, even though they are both in VLAN 99. Which command should be added to Fa0/1 on DLS1 to correct the problem?**

```
DLS1# show interfaces trunk

Port      Mode           Encapsulation  Status        Native vlan
Fa0/1     on             802.1q         trunking      99

Port      Vlans allowed on trunk
Fa0/1     1,10,20,30,99,1001-1005

Port      Vlans allowed and active in management domain
Fa0/1     1,10,20,30,99

Port      Vlans in spanning tree forwarding state and not pruned
Fa0/1     10,20,30,99
DLS1#
*Mar  1 00:05:53.554: %CDP-4-NATIVE_VLAN_MISMATCH: Native VLAN mismatch discovered on FastEthernet0/1 (99), with DLS2 FastEthernet0/1 (66).
DLS1#
```

*CCNA 2 Chapter 3 Exam Answer 003 (v5.02, 2015)*

- switchport nonegotiate
- switchport mode dynamic auto
- **switchport trunk native vlan 66**
- switchport trunk allowed vlan add 99

**17. What happens to a port that is associated with VLAN 10 when the administrator deletes VLAN 10 from the switch?**

- **The port becomes inactive.**
- The port goes back to the default VLAN.
- The port automatically associates itself with the native VLAN.
- The port creates the VLAN again.

**18. In a basic VLAN hopping attack, which switch feature do attackers take advantage of?**

- an open Telnet connection
- automatic encapsulation negotiation

- forwarding of broadcasts
- **the default automatic trunking configuration**

**19. Which switch feature ensures that no unicast, multicast, or broadcast traffic is passed between ports that are configured with this feature?**

- VLAN
- **PVLAN protected port**
- ACL
- switch port security

**20. Which two Layer 2 security best practices would help prevent VLAN hopping attacks? (Choose two.)**

- **Change the native VLAN number to one that is distinct from all user VLANs and is not VLAN 1.**
- Change the management VLAN to a distinct VLAN that is not accessible by regular users.
- Statically configure all ports that connect to end-user host devices to be in trunk mode.
- **Disable DTP autonegotiation on end-user ports.**
- Use SSH for all remote management access.

**21. Refer to the exhibit. Interface Fa0/1 is connected to a PC. Fa0/2 is a trunk link to another switch. All other ports are unused. Which security best practice did the administrator forget to configure?**

```

ALS1# show running-config
<output omitted>
interface FastEthernet0/1
  switchport mode access
  switchport nonegotiate
!
interface FastEthernet0/2
  switchport trunk encapsulation dot1q
  switchport trunk native vlan 40
  switchport mode trunk
  switchport nonegotiate
!

ALS1# show vlan brief

VLAN Name                Status    Ports
-----
<output omitted>
10   Users                    active
40   Native                    active
50   Management                 active
99   Unused                     active   Fa0/3, Fa0/4, Fa0/5, Fa0/6
                                           Fa0/7, Fa0/8, Fa0/9, Fa0/10
                                           Fa0/11, Fa0/12, Fa0/13, Fa0/14
                                           Fa0/15, Fa0/16, Fa0/17, Fa0/18
                                           Fa0/19, Fa0/20, Fa0/21, Fa0/22
                                           Fa0/23, Fa0/24, Gi0/1, Gi0/2

```

*CCNA 2 Chapter 3 Exam Answer 004 (v5.02, 2015)*

- Disable autonegotiation and set ports to either static access or static trunk.
- Change the native VLAN to a fixed VLAN that is distinct from all user VLANs and to a VLAN number that is not VLAN 1.
- Configure all unused ports to a 'black-hole' VLAN that is not used for anything on the network.
- All user ports are associated with VLANs distinct from VLAN 1 and distinct from the 'black-hole' VLAN.

## 22. Fill in the blank

Use the full command syntax.

The **show vlan** command displays the VLAN assignment for all ports as well as the existing VLANs on the switch.

## 23. Match the DTP mode with its function. (Not all options are used.)



*CCNA 2 Chapter 3 Exam Answer 005 (v5.02, 2015)*

**24. Open the PT Activity. Perform the tasks in the activity instructions and then answer the question.**

**Which PCs will receive the broadcast sent by PC-C?**

- PC-A, PC-B
- **PC-D, PC-E**
- PC-A, PC-B, PC-E
- PC-A, PC-B, PC-D, PC-E
- PC-A, PC-B, PC-D, PC-E, PC-F