Routing and Switching Essentials (Version 6.00) - RSE 6.0 Chapter 6 Exam

Below is the feedback on items for which you did not receive full credit. Some interactive items may not display your response.

Subscore: Domain Knowledge - Standard Score

2 Which type of VLAN is used to designate which traffic is untagged when crossing a trunk port?

Correct Response	Your Response	
	◉	default
	○	management
✓	○	native
	○	data

A native VLAN is the VLAN that does not receive a VLAN tag in the IEEE 802.1Q frame header. Cisco best practices recommend the use of an unused VLAN (not a data VLAN, the default VLAN of VLAN 1, or the management VLAN) as the native VLAN whenever possible.

This item references content from the following areas:

Routing and Switching Essentials

6.1.1 Overview of VLANs

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

Correct Response **Your Response**

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

If the VLAN that is associated with a port is deleted, the port becomes inactive and cannot communicate with the network any more. To verify that a port is in an inactive state, use the **show interfaces switchport** command.

This item references content from the following areas:

Routing and Switching Essentials

6.2.1 VLAN Assignment

9 Which two characteristics match extended range VLANs? (Choose two.)

Correct Response **Your Response**

- ☐ CDP can be used to learn and store these VLANs.
- ☐ They are commonly used in small networks.
- ☑ VLANs are initialized from flash memory.
- ✔ ☐ They are saved in the running-config file by default.
- ✔ ☑ VLAN IDs exist between 1006 to 4094.

Extended range VLANs are stored in the running-configuration file by default and must be saved after being configured. Extended VLANs use the VLAN IDs from 1006 to 4094.

This item references content from the following areas:

Routing and Switching Essentials

6.2.1 VLAN Assignment

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```
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#
```

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?

Correct Response	Your Response	
	○	switchport trunk allowed vlan add 99
✓	○	switchport trunk native vlan 66

- ○ **switchport nonegotiate**
- ◉ **switchport mode dynamic auto**

When configuring 802.1Q trunk links, the native VLAN must match on both sides of the link, or else CDP error messages will be generated, and traffic that is coming from or going to the native VLAN will not be handled correctly.

This item references content from the following areas:

Routing and Switching Essentials

6.2.3 Troubleshoot VLANs and Trunks

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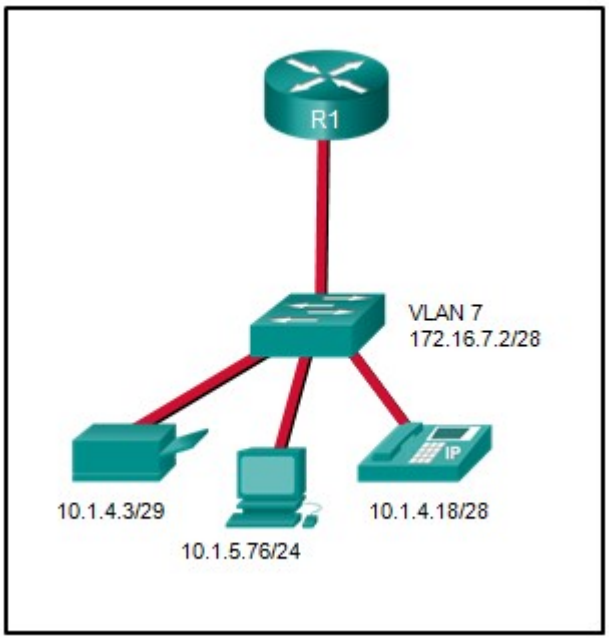

Refer to the exhibit. A network administrator needs to configure router-on-a-stick for the networks that are shown. How many subinterfaces will have to be created on the router if each VLAN that is shown is to be routed and each VLAN has its own subinterface?

Correct Response	Your Response

- ○ 2
- ○ 5
- ○ 1
- ✔ ○ 4
- ◉ 3

Based on the IP addresses and masks given, the PC, printer, IP phone, and switch management VLAN are all on different VLANs. This situation will require four subinterfaces on the router.

This item references content from the following areas:

Routing and Switching Essentials

6.3.3 Configure Router-on-a-Stick Inter-VLAN Routing

21 Which four steps are needed to configure a voice VLAN on a switch port? (Choose four).

Correct Response	Your Response	
✔	☑	Configure the switch port in access mode.
	☐	Activate spanning-tree PortFast on the interface.
	☑	Configure the interface as an IEEE 802.1Q trunk.
	☐	Assign a data VLAN to the switch port.
✔	☐	Add a voice VLAN.
✔	☑	Ensure that voice traffic is trusted and tagged with a CoS priority value.
	☐	Configure the switch port interface with subinterfaces.
✔	☑	Assign the voice VLAN to the switch port.

To add an IP phone, the following commands should be added to the switch port:
SW3(config-vlan)# **vlan 150**
SW3(config-vlan)# **name voice**
SW3(config-vlan)# **int fa0/20**
SW3(config-if)# **switchport mode access**
SW3(config-if)# **mls qos trust cos**
SW3(config-if)# **switchport access vlan 150**

This item references content from the following areas:

Routing and Switching Essentials

6.2.1 VLAN Assignment