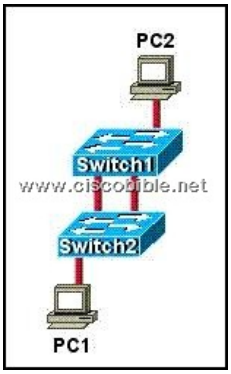
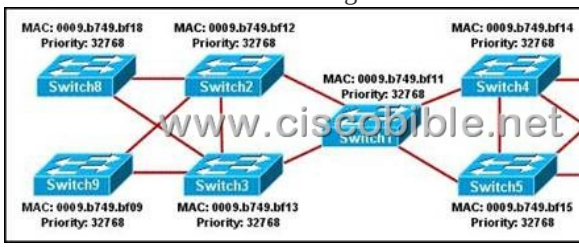
# CCNA 640-802 Bible - Configure,Verify and Troubleshoot RSTP

1. A network administrator needs to force a high-performance switch that is located in the MDF to become the root bridge for a redundant path switched network. What can be done to ensure that this switch assumes the role as root bridge? A: Establish a direct link from the switch to all other switches in the network. B: Assign the switch a higher MAC address than the other switches in the network have. C: Configure the switch so that it has a lower priority than other switches in the network. D: Configure the switch for full-duplex operation and configure the other switches for half-duplex operation. E: Connect the switch directly to the MDF router, which will force the switch to assume the role of root bridge. **Correct Answers: C** 2. Refer to the exhibit. When PC1 sends an ARP request for the MAC address of PC2, network performance slows dramatically, and the switches detect an unusually high number of broadcast frames. What is the most likely cause of this?




A: The portfast feature is not enabled on all switch ports. B: The PCs are in two different VLANs. C: Spanning Tree Protocol is not running on the switches. D: PC2 is down and is not able to respond to the request. E: The VTP versions running on the two switches do not match. **Correct Answers: C** Explanation: As the switch1 and switch2 are connected with each other via two links, spanning tree must be enabled on both switches to avoid switching loops and broadcast storms. An ARP request is a broadcast message. If Spanning tree is not running, broadcast loops will form reducing the performance of the network.. 3. Refer to the exhibit. The switches on a campus network have been interconnected as shown. All of the switches are running Spanning Tree Protocol with its default settings. Unusual traffic patterns are observed and it is discovered that Switch9 is the root bridge. Which change will ensure that Switch1 will be selected as the root bridge instead of Switch9?




A: Lower the bridge priority on Switch1. B: Raise the bridge priority on Switch1. C: Lower the bridge priority on Switch9. D: Raise the bridge priority on Switch9. E: Disable spanning tree on Switch9. F: Physically replace Switch9 with Switch1 in the topology. **Correct Answers: A** Explanation: The root bridge is the bridge or switch that is the root of the Spanning Tree, with the branches being loop-free paths to the other switches in the system. The Root is the switch with the lowest Bridge ID; the ID is determined by a combination of an administrative Priority and the MAC address of the switch. The Priority is set to 32,768 (8000 hex) by default; if we leave the Priority at the default, whatever switch has the lowest MAC will be the Root. So to elect the Testking1 switch as a root bridge need to set the lowest priority. 4. Refer to the exhibit. The output that is shown is generated at a switch. Which three of these statements are true? (Choose three.)

```
Switch# show spanning-tree vlan 30
VLAN0030
Spanning tree enabled protocol rstp
Root ID Priority 24606
Address 00d0.047b.2800
This bridge is the root
Hello Time 2 sec Max Age 20 sec Forward Delay 15 sec
Bridge ID Priority 24606 (priority 24576 sys-id-ext 30)
Address 00d0.047b.2800
Hello Time 2 sec Max Age 20 sec Forward Delay 15 sec
Aging Time 300
Interface   Role  Sts   Cost  Prio.Nbr    Type
---------   ---------   ---   -------     ----- ----------
Fa1/1       Desg FWD    4     128.1       p2p
Fa1/2       Desg FWD    4     128.2       p2p
Fa5/1       Desg FWD    4     128.257     p2p
```

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A:All ports will be in a state of discarding, learning, or forwarding. B:Thirty VLANs have been configured on this switch. C:The bridge priority is lower than the default value for spanning tree. D:All interfaces that are shown are on shared media. E:All designated ports are in a forwarding state. F:This switch must be the root bridge for all VLANs on this switch. **Correct Answers: A, C, E**