Step 4: Configure the management interface address on all three switches.

Verify that the switches are correctly configured by pinging between them. From S1, ping the management interface on S2 and S3. From S2, ping the management interface on S3. Were the pings successful? Yes

Step 2: Examine the output. The bridge identifier (bridge ID), stored in the spanning tree BPDU consists of the bridge priority, the system ID extension, and the MAC address. The combination or addition of the bridge priority and the system ID extension are known as the bridge ID priority. The system ID extension is always the number of the VLAN. For example, the system ID extension for VLAN 100 is 100. Using the default bridge priority value of 32768, the bridge ID priority for VLAN 100 would be 32868 (32768 + 100). The show spanning-tree command displays the value of bridge ID priority. Note: The “priority” value within the parentheses represents the bridge priority value, which is followed by the value of the system ID extension. Answer the following questions based on the output.

1. What is the bridge ID priority for switches S1, S2, and S3 on VLAN 1?   
   a. S1 32769  
   b. S2 32769  
   c. S3 32769  
     
   2. Which switch is the root for the VLAN 1 spanning tree? S3   
     
   3. On S1, which spanning tree ports are in the blocking state on the root switch? Fa0/1   
     
   4. On S3, which spanning tree port is in the blocking state? S1 Fa0/1   
     
   5. How does STP elect the root switch? Lowest bridge ID priority   
     
   6. Since the bridge priorities are all the same, what else does the switch use to determine the root? Lowest MAC address

Step 3: Record the debug output from S2 and S3

When the link from S2 that is connected to the root switch goes down, what is its initial conclusion about the spanning tree root has changed

Once S2 receives new information on Fa0/2, what new conclusion does it draw VLAN0001 new root is 32769, 0019.068d.6980 on port Fa0/2, cost 38

Port Fa0/2 on S3 was previously in a blocking state before the link between S2 and S1 went down. What states does it go through as a result of the topology change? FWD

Page 8 – Could not run debug in application (Packet Tracer)  
Answer the following questions based on the output.

1. What has changed about the way that S2 forwards traffic? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 2. What has changed about the way that S3 forwards traffic?\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_