MOSCOW:

- Configure interfaces Gi0/0 – Gi0/1 on SW3 and interfaces Gi0/0 – Gi0/1 on SW4 to be bound as one logical Layer 2 link.
- SW3 should actively negotiate this link through LACP.
- SW4 should respond to SW3's LACP requests, but it should not initiate negotiation.
- Ensure that SW4 is the 802.3ad decision maker for this logical link.
- Both switches should negotiate dot1q as the trunking encapsulation for this logical link.
- Configure SW2 as the spanning-tree root for VLANs 4, 44, 52, and 63.
- All traffic between SW1 and SW2 for these VLANs should transit the trunk between SW1 and SW3's port Gi0/2.
- If port Gi0/2 goes down, traffic for these VLANs should transit port Gi0/1.
- As a last resort, traffic for these VLANs should transit port Gi0/0 if both of the other trunk links are down.
- The above configuration should be done on SW1.
- This should be accomplished while running PVST.
- Configure SW1 and SW2 so that ports towards R1 and R2 do not have to wait for spanning-tree's forwarding delay when they connect to the network before traffic can be sent and received.
    - Ensure that these ports in will be shut down if a device running spanning-tree protocol is detected.
- Configure the network to ensure that VLAN 102's traffic never traverses SW4.

- Enable pruning globally within the VTP domain.
- Although SW1 and SW2 do not have VLAN 8 locally assigned, ensure that they receive unknown unicast, broadcast, or multicast traffic for VLAN 8 over their lowest numbered trunk link.
- Traffic for VLAN 8 should not be sent or received over any of the other trunk links to SW2.
- Do not modify any STP settings for this task.

SAINT-PETERSBURG:

- Configure SW5 as the spanning-tree root for VLAN 1, 5, 12, and 107 and configure SW6 to become the spanning-tree root for VLAN 1, 5, 12, and 107 if SW5 is no longer available.
- Configure SW6 as the spanning-tree root for VLAN 46, 89, and 363 and configure SW5 to become the spanning-tree root for VLAN 46, 89, and 363 if SW6 is no longer available.
- All VLAN traffic from SW5 to SW6 should transit SW7.
- If SW5's path to SW6 through SW7 is down, SW5 should use the directly connected trunk links to reach SW6 directly.
- Use the minimum number of STP instances as you can

- Stp name is n4e
- Configuration id is “10”
- STP configuration commands could be implemented only on SW7