Pri: 32769
MAC: 00D0.5882.4834

Pri: 32769
MAC: 0005.5E4E.714B

PC1

F0/24 — Hub0 — F0/1 --- F0/1

SW1 F0/2 / F0/3

PC2

F0/23 ---- PC4

G0/1 SW2 F0/24 ...

F0/2

PC5

Hub1 G0/1
F0/2

F0/2

PC3 --- F0/24 --- SW3 F0/1 --- F0/1 SW4 F0/24 PC6

Pri: 32769
MAC: 000C.8519.6EBA

Pri: 32769
MAC: 00E0.A381.AD46

Network Topology

>SW1 is the root bridge

Since it has the lowest MAC when all the switches' priorities are the same.

CLI command for checking:
#show spanning-tree

>The F0/3 interface is the backup cause Hub 1 is connected with the F0/2 and F0/3 or the SW1, which will cause receiving BPDUs of the same switch on its port. Therefore, the one with the lower interface ID F0/2 is the designated port, and F0/3 is the backup port.

Problem faced – The F0/3 port was being set to the designated port repeatedly. This is a Cisco Packet Tracer error.

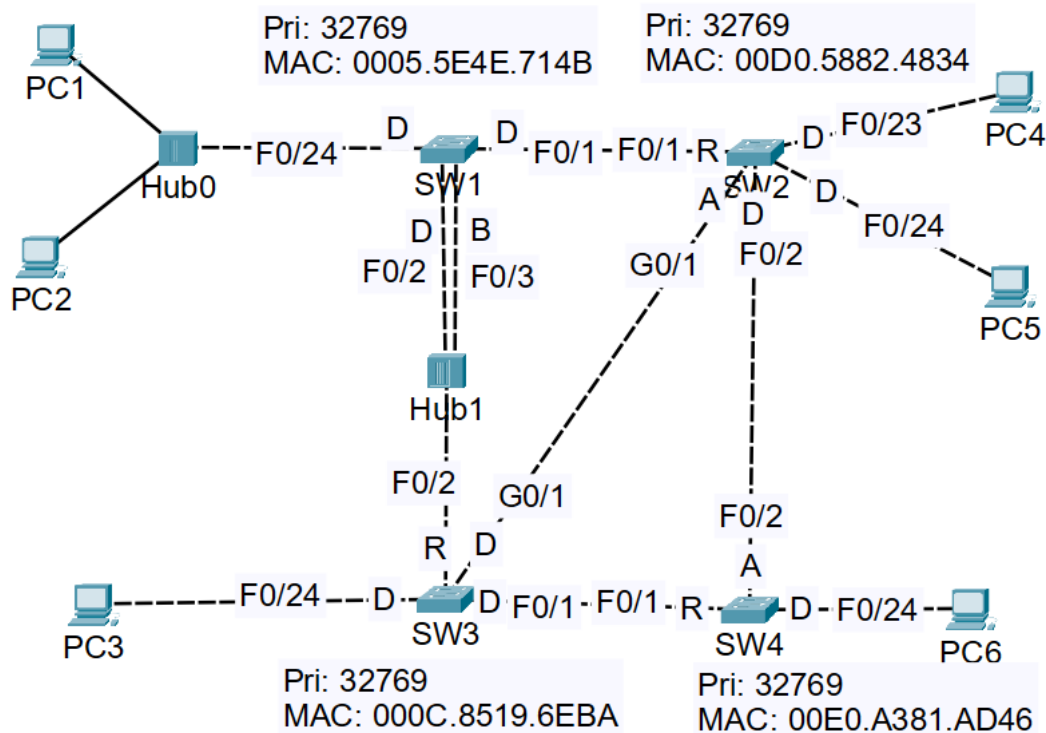Solution – Enable Rapid PVST using the command in global config mode:

#spanning-tree mode rapid-pvst

This sets back the F0/3 status to the backup port

If it doesn't work, use the command in interface config mode for F0/3

Recheck using #show spanning-tree in privileged exec mode

Configuring Root, Designated, Backup and Alternate ports:

Designated – D

Root – R

Backup – B

Alternate – A

>For the last step, assign the edge link type to ports connecting to end hosts in rapid PVST:

In the interface config mode, write

#spanning-tree portfast