

EE4014 Lecture Activity - STP

A. Wireshark Activity

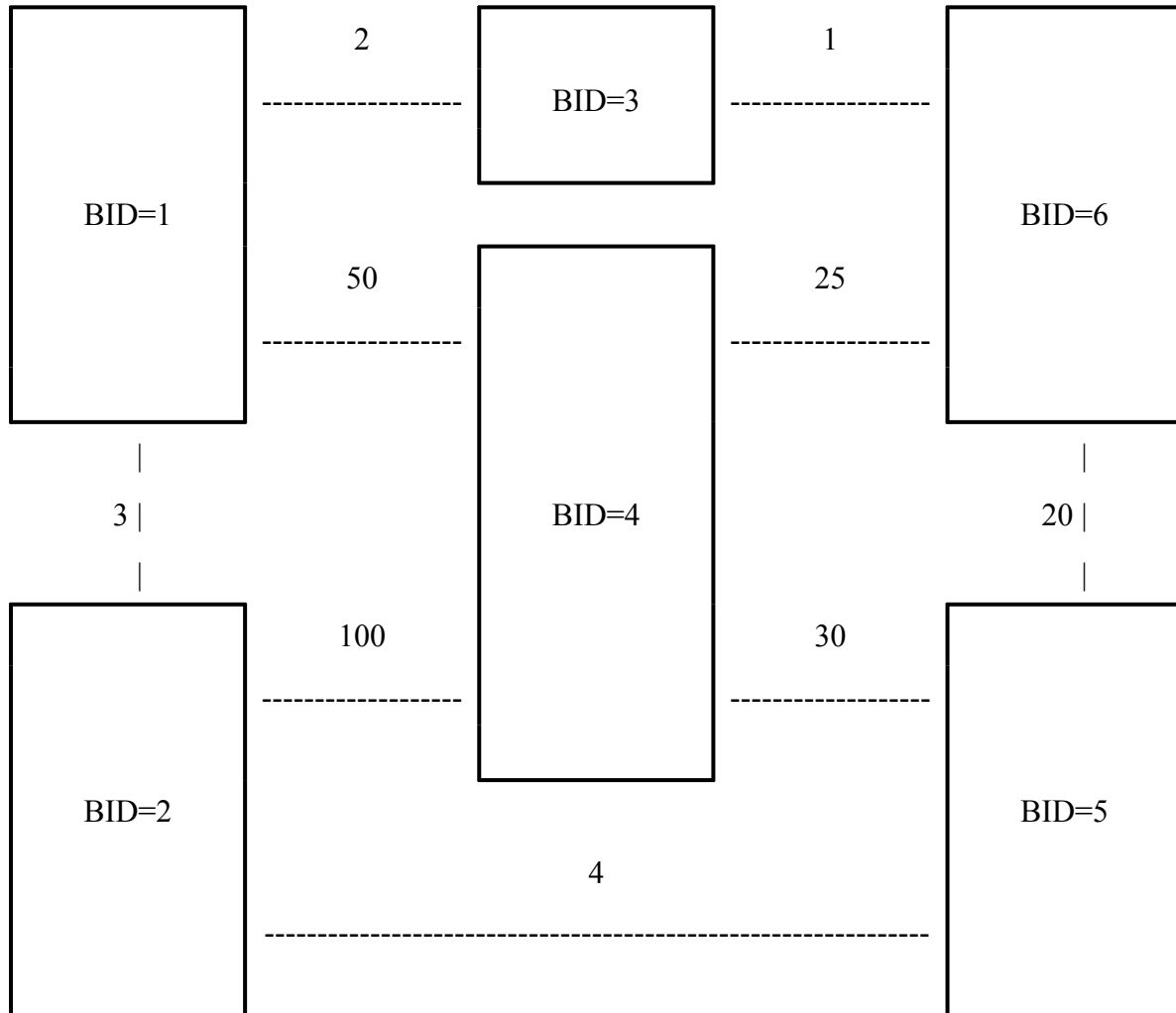
1. Launch Wireshark and load the capture file "RSTP.cap".
2. What is the Root ID of the root of this switching network? How do you know?
3. What Bridge ID of the switch sending out the BPDUs? Is this switch the root switch? How do you know?
4. What is the Priority of the root?
5. What is the Hello time? How do you know?
6. In Frame No. 16, what happens? Is the root changed?

B. Nexus 7010 Simulator

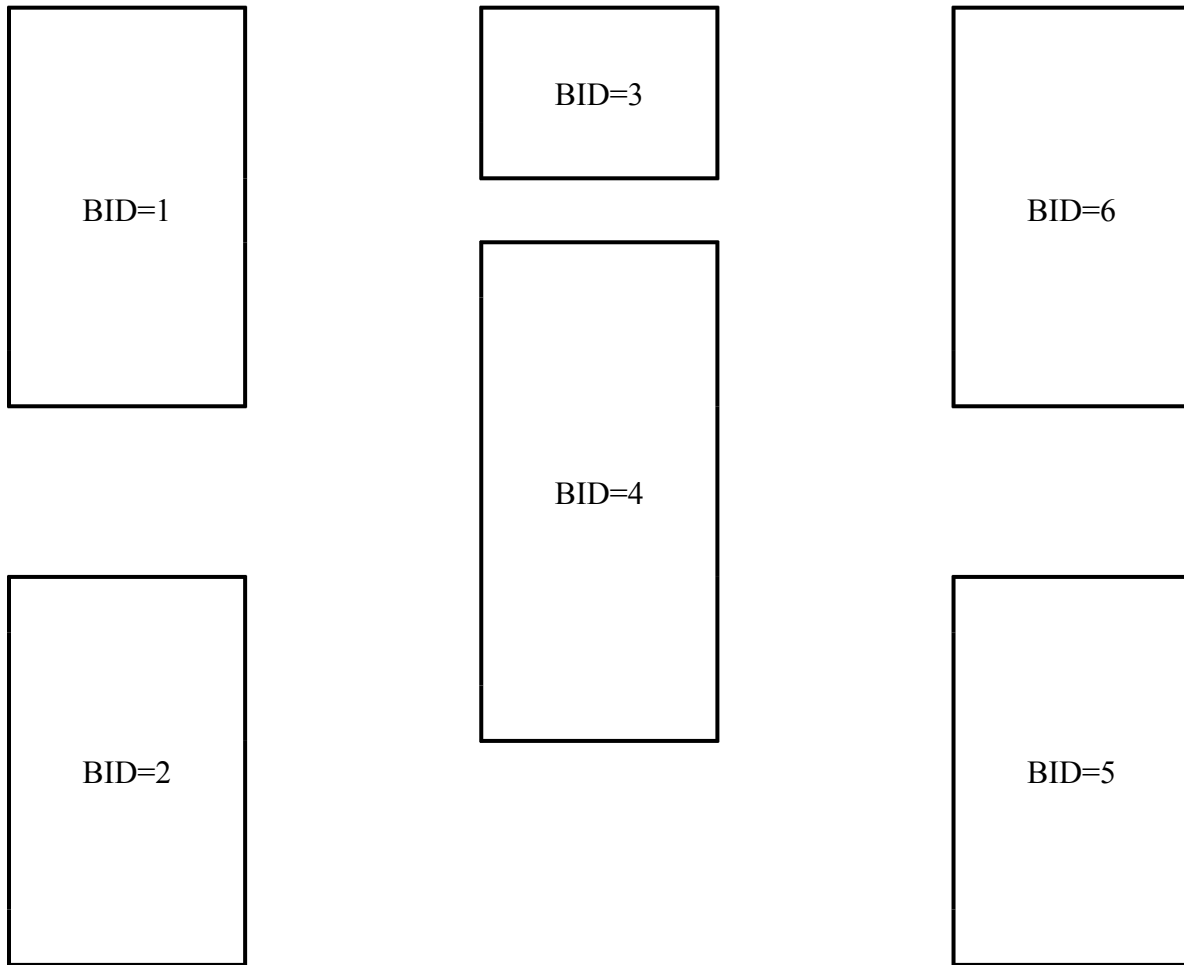
1. Launch Nexus 7010 Simulator. Use command "show spanning-tree" to find out the following:
2. There are 4 VLANs running STP in this switching network. What are the VLAN numbers of these 4 VLANs?
3. Find out the Root IDs of the roots of these 4 VLANs. In which VLAN(s), this Nexus 7010 switch is the root?
4. What are the root priorities of the roots?
5. In the first VLAN, which port is the root port?
6. In the first VLAN, what is the speed of the link connecting this Nexus 7010 to the root switch? How do you know?

C. Tutorial Question

A switched network shown below consists of 6 Ethernet switches.



a) Show the resulting Spanning Tree below:



[____ / 8 marks]

b) Consider the situation that the CAM tables of all the switches are initially empty. Then a frame (with source MAC = MAC-6 and destination MAC = MAC-5) is sent from switch with BID=6 to the switch with BID=5. Will the CAM table of switch with BID=4 records a new entry of the frame?

Answer: (No) / (Yes, the MAC recorded is: _____)

[____ / 5 marks]