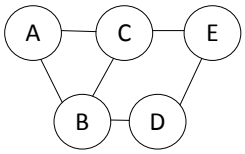
Extra problems in Internet protocols on IEEE 802.11 and ATM:

1. Describe how do IEEE 802.11 stations check for a free channel.
2. Describe the function of Network Allocation Vector (NAV).
3. Discuss whether CSMA/CD and CSMA/CA are suitable for Wireless Local Area Networks (WLANs). Show cases where these methods are inefficient.
4. Assume the below topology consisting IEEE 802.11 nodes A,B,C,D and E. Starting with a free channel, provide a timing diagram for each of the following transmission scenarios:



   a) B→D and E→D
   b) C→B and E→D

5. An ATM cell and a UNI-interface is considered. How many virtual paths (VP) and virtual channels (VC) are theoretically possible at the UNI-interface?
6. How many cells/second is a normal telephone call? how many Ethernet frames is a maximum sized IP datagram? what is the efficiency in case of ATM and Ethernet. Which one is more suitable for IP?