Problem 1:
Six stations, A through F, communicate using the MACA protocol. Is it possible that two transmissions take place simultaneously? Explain your answer.

Two transmissions can occur between two different pairs of nodes. Because they are set up in a straight line and each station can only reach its neighbors. Thus, for example, C can transmit to D while A transmits to B.

Problem 2:
The wireless LANs that we studied used protocols such as MACA instead of using CSMA/CD (wired networks). Under what conditions, if any, would it be possible to use CSMA/CD instead?

In a wired LAN, each computer can hear all other computers. In a wireless LAN, each node can only hear its direct neighbors (within a respective radius). Thus, for a wireless LAN to act as a CSMA/CD network, all devices in the wireless LAN need to be very close to one another. By gathering all devices within a smaller radius, they would all be able to hear one another.