Additional problems:

A1: *What is the advantage that the pure Aloha gives you over the slotted Aloha in addition to the synchronization requirement?*

No fixed packet size, ability to start transmission at anytime and does not need to do synchronization.

A2: *Only in certain scenario, the CSMA/CD outperforms slotted Aloha, what is the scenario?*

For Small values of $a = t_{prop} R/ L$, as 'a' increases, the reaction time for CSMA/CD increases, hence, the performance suffers. However, Slotted Aloha's performance is not affected because it does not dependent on 'a.'