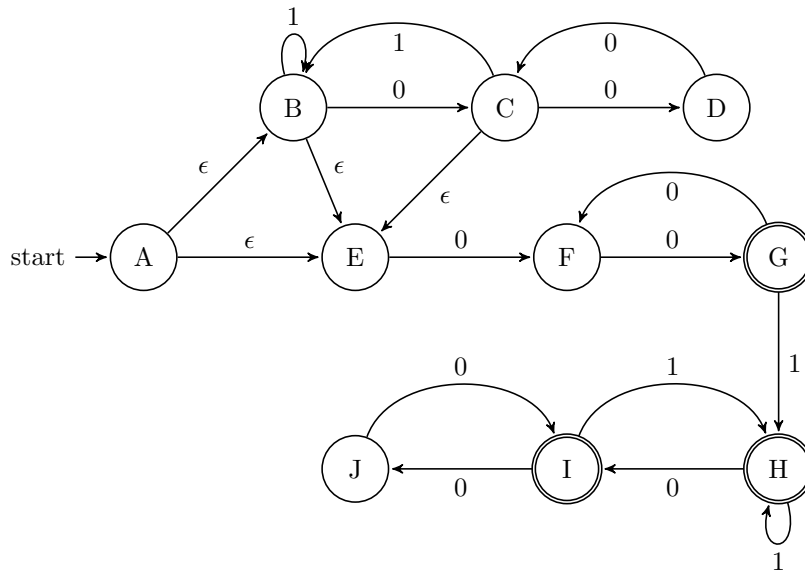


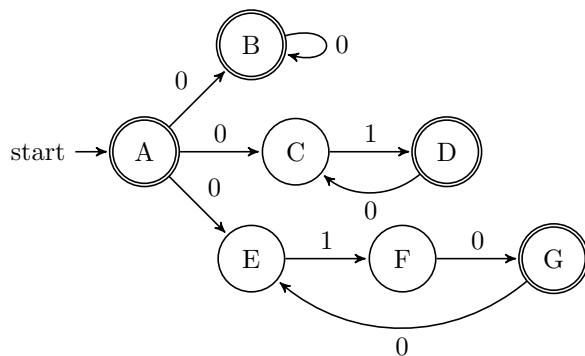
Homework 2

Nikhil Unni (nunni2)

1. (a) Draw an NFA that accepts the language w — there is exactly one block of 0s of even length. (A block of 0s is a substring of 0s that is not contained in any longer substring of 0s.)



- (b) i. Draw an NFA for the regular expression $(010)^* + (01)^* + 0^*$



- ii. Now using the powerset construction (also called the subset construction), design a DFA for the same language. Label the states of your DFA with names that are sets of states of your NFA.

