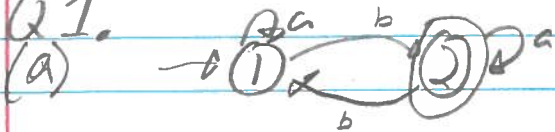
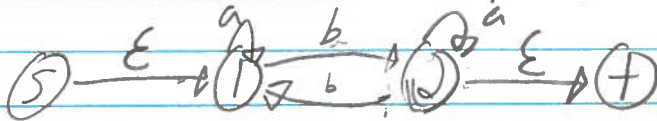


Aleksas Murauskas

Q1.



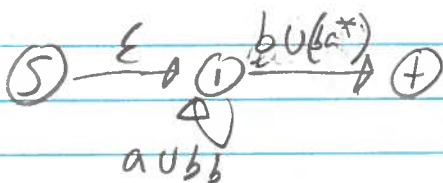
Convert DFA into an equivalent GNFA



First Eliminate 2

1 to 2 to 1 : bb , 1 to 2 to + : $b\epsilon = b$

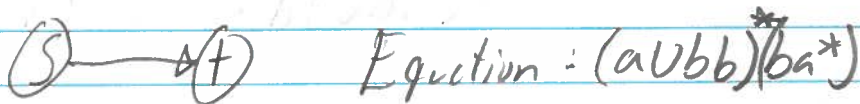
2 to 2 to + : $\epsilon = ba^*$



Next eliminate 1

$5 \rightarrow 1 \rightarrow + : b\epsilon^*$

$5 \rightarrow 1 \rightarrow 1 : aUbb$



Equation : $(aUbb)^*ba^*$

Regular expression : $\underbrace{(aUbb)^*}_{\text{Step in 1}} \underbrace{ba^*}_{\text{Step in two}}$