

CS 302
REMOTE QUIZ 1

4 March, 2021

Duration : 15 minutes

Closed Notes , Books and all Electronic Devices

Do not forget to write your name on your paper !

QUESTION

(a) (3 pts) State the definition of the extended transition function $\delta^E : Q \times \Sigma^* \rightarrow Q$ of a DFA in terms of its transition function δ inductively.

(b) (7 pts) Design an NFA X that accepts all strings in $\{0,1\}^*$ such that ***the first and the last elements of the string are identical*** ; and compute and plot graphically a DFA Y that is ***equivalent*** to your NFA X .