

CS 302
QUIZ 1

28 September, 2015

Duration : 15 minutes

Do not forget to write your name on your paper !

QUESTION

(a) (5 pts) Write down X and Y in the definition of the transition function $\delta : X \rightarrow Y$ of a Nondeterministic Finite Automaton (NFA) $N = (Q, \Sigma, \delta, Q_0, F)$ and the condition for N accepting a word $s \in \Sigma^*$ using the extended transition function δ^E

(b) (5 pts) Sketch graphically an NFA using the symbol alphabet Σ that accepts a string in which the substring 'ALP' occurs at least two times.

ANSWER

(a) $X = Q \times \Sigma$, $Y = 2^Q$; $\delta^E(Q_0, s) \cap F \neq \emptyset$

(b)

