CS 302
QUIZ 2

26 October, 2020

Duration : 15 minutes

Do not forget to write your name on your paper !

QUESTION

(a) *(5 pts) Given the language*

$L_1 = (s \in \{1\}^* \mid s = 1^k ; k = 3n+1 , n \geq 0$ *any integer)*

Either show that L_1 *is a* ***regular*** *language by designing an NFA that accepts it ; or show that it is* ***non-regular*** *using the* ***Pumping Lemma.***

(b) *(5 pts) Repeat part* ***(a)*** *for* $L_2 = (s \in \{0,1\}^* \mid s = 0^{k+1}.1^k ; k \geq 0$ *any integer)*