CS 302
REMOTE QUIZ 8

21 December, 2020

Closed books and closed written or electronic notes

Do not forget to write your name on your paper !

Duration : 20 minutes

QUESTION

For the 2 languages below either prove that it is a CFL using a CFG or a PDA ; or prove that it is not a CFL using the pumping lemma.

(a) *(5 pts)* $L_1 = (\omega \in \{a,b,c,d\}^* \mid \omega = a^m b^k c^k d^m \ ; \ m,k \geq 0)$

(b) *(5 pts)* $L_2 = (\omega \in \{a,b,c\}^* \mid \omega = a^{k+2} b^{k+1} c^k \ ; \ n \geq 0)$