

CS 302
REMOTE QUIZ 7

14 December, 2020

Closed books and closed written or electronic notes

Do not forget to write your name on your paper !

Duration : 20 minutes

QUESTION

(a) (4 pts) Given the language :

$L = (\omega \in \{a,b,c\}^ \mid \omega = u.c.u^R ; u \in \{a,b\}^* \text{ where } u^R \text{ denotes } u \text{ written in reverse})$*

State a CFG $G = (V, T, R, S)$ that generates the language L

*(b) (6 pts) Using look-ahead states q_a , q_b and q_c corresponding to the inputs a , b and c respectively design a **deterministic PDA (DPDA) P** that can be used as a **top-down parser** for the language L .*