

CS 302
QUIZ 7

22 November 2017

Duration : 15 minutes

Do not forget to write your name on your paper !

QUESTION

Consider the CFG $G=(\{E,M,I,J\},\{0,1,+ \},R,E)$ where

$R : E \rightarrow I \mid E+I \mid M ; I \rightarrow 0 \mid 1J ; M \rightarrow M0 ; J \rightarrow 0J \mid 1J \mid \epsilon$

- (a) (4 pts) Simplify this grammar by eliminating first the **null** and **unit** productions and then the **useless** symbols.
- (b) (6 pts) Compute the Chomsky Normal Form for this CFG.