

**CS 302**  
**QUIZ 7**

26 November, 2019

**Duration : 15 minutes**

***Do not forget to write your name on your paper !***

**QUESTION**

**(a) (5 points)** State the **Pumping Lemma** for context-free languages.

**(b) (5 points)** Is the language  $L = (\omega \in \{0,1\}^* \mid \omega = a^{k+2}b^{k+1}c^k, k \geq 0)$  a CFL ?

If so find a CFG that generates it ; if not prove that it is not by using the **Pumping Lemma** .