

**CS 302
QUIZ 5****15 November, 2016****Duration : 15 minutes*****Do not forget to write your name on your paper !*****QUESTION**

Consider the CFG $G = (\{E, F\}, \{ '[', ']', '(', ')'\}, P, E)$ where P is given as follows :

$P : E \rightarrow (E) \mid EE \mid F \mid e ; F \rightarrow [F] \mid FF \mid e$, where e is the empty string.

State whether a string u below is a member of L_G and if so draw its parse tree :

(a) $u = ([] [])$

(b) $u = ([()])$

(c) $u = ([[]])$