

**CS 302
QUIZ 5****22 October, 2019****Duration : 15 minutes*****Do not forget to write your name on your paper !*****QUESTION**

Consider the CFG , $G=(\{S,T,Q\},\{0,1,'.'\} , P, S)$, where :

$P :$

$S \rightarrow 0 \mid 0.Q \mid 1T ;$

$T \rightarrow 0T \mid 1T \mid .Q \mid e ;$

$Q \rightarrow 0Q \mid 1Q \mid 1$

(a) (5 pts) State in simple language what the strings generated by G correspond to ?

(b) (5 pts) Using this grammar derive the **binary coded string 10.01**

(corresponding to the decimal coded fractional number 3.25)