CS 302
REMOTE QUIZ 9

23 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) (5 pts) For a DTM $M=(Q, \Sigma, \delta, s, H)$ state the definitions for M

(i) deciding and (ii) semideciding a language $L \subseteq \Sigma^*$

(b) (5 pts) Suppose that $w \in \{0,1\}^*$ sketch either graphically or in tabular form - as done in slides - a composed DTM M that computes the function $f(w)$

$(s, \underline{\#}w) \vdash_M^* (h, \underline{\#} f(w))$

where f is the function that interchanges the 0's and 1's in w.