2 April, 2020

CS 302
QUIZ 6 (REMOTE)

ANSWER

(a) (5 pts) $G = (\{S,K\},\{a,b,c,d\}, R, S)$ where R is as follows :

$S \rightarrow a\ S\ d \mid K\ ;\ K \rightarrow b\ K\ c \mid e$

(b) (5 pts) $P = (\{q_0\}, \{a,b,c,d\}, \{S,K,a,b,c,d,Z_0\}, \delta, q_0)$ where δ is given by the following transitions :

$(q_0, e, Z_0) \rightarrow (q_0, S\ Z_0)$

$(q_0, e, S) \rightarrow (q_0, a\ S\ d)$

$(q_0, e, S) \rightarrow (q_0, K)$

$(q_0, e, K) \rightarrow (q_0, b\ K\ c)$

$(q_0, e, K) \rightarrow (q_0, e)$

$(q_0, x, x) \rightarrow (q_0, e)$; for $x=a,b,c,d$

$(q_0, e, Z_0) \rightarrow (q_0, e)$