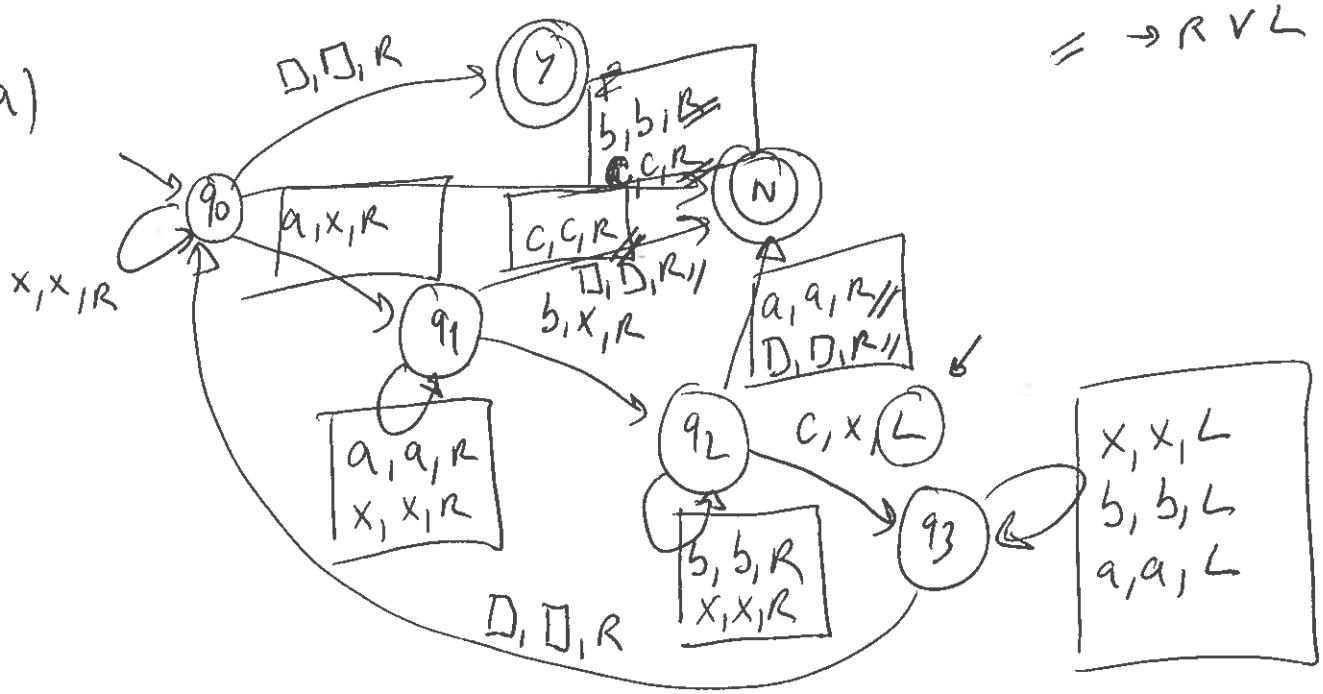
(4) c) ASSUMINDO $\Sigma = \{a, b, c\}$, $\overline{L}$ PODE SER IMPLEMENTADA TROCANDO Y POR N E N POR Y.

b)

$q_0 abc \vdash x q_1 bc \vdash xx q_2 c \vdash x q_3 xx \vdash q_3 xxx$
$\vdash q_3 \square xxx \vdash q_0 xxx \vdash x q_0 xx \vdash xx q_0 x$
$\vdash xxx q_0 \square \vdash xxx \square Y$

$= \rightarrow R V L$

a)



$T = (\{q_0, q_1, q_2, q_3, Y, N\}, \{a, b, c, x\}, \delta,$
$\square, \{Y, N\})$

$\delta(q_0, \square) = (Y, \square, R)$
$\delta(q_0, x) = (q_0, x, R)$
$\delta(q_0, a) = (q_1, x, R)$
$\delta(q_1, c) = (N, c, R //)$
$\delta(q_1, b) = (q_2, x, R)$
$\delta(q_1, a) = (q_1, a, R)$
$\delta(q_1, \square) = (N, \square, R //)$

$\delta(q_0, b) = (N, b, R //)$
$\delta(q_0, c) = (N, c, R //)$
$\delta(q_2, b) = (q_2, b, R)$
$\delta(q_2, a) = (N, a, R //)$
$\delta(q_2, c) = (q_3, x, L)$
$\delta(q_3, \square) = (q_0, \square, R)$

$\delta(q_3, x) = (q_3, x, L)$
$\delta(q_3, b) = (q_3, b, L)$
$\delta(q_3, a) = (q_3, a, L)$

$\delta(q_1, x) = (q_1, x, R)$
$\delta(q_2, x) = (q_2, x, R)$