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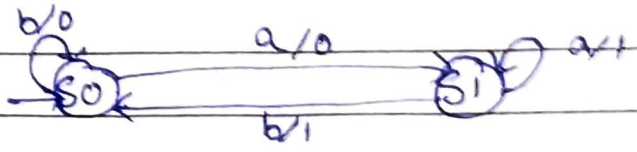
FLAT

Team Work II (b)

Q1.



MEALY

STF: $\delta: Q \times \Sigma \to Q$

Q \ Σ	a	b
S_0	S_1	S_0
S_1	S_1	S_0

MTF: $\lambda = Q \times \Sigma \to \Delta$

Q \ Σ	a	b
S_0	0	0
S_1	1	1

$Q' = Q \times \Delta = \{[S_0, 0], [S_0, 1], [S_1, 1], [S_1, 0]\}$

a. $\delta'([S_0, 0], a) = [\delta(S_0, a), \lambda(S_0, a)]$
$= [S_1, 0]$

$\delta'([S_0, 0], b) = [\delta(S_0, b), \lambda(S_0, b)]$
$= [S_0, 0]$

$\lambda'([S_0, 0]) = 0$

b. $\delta'([S_0, 1], a) = [\delta(S_0, a), \lambda(S_0, a)]$
$= [S_1, 0]$

$\delta'([S_0, 1], b) = [\delta(S_0, b), \lambda(S_0, b)]$
$= [S_0, 0]$

$\lambda'([S_0, 1]) = 1$

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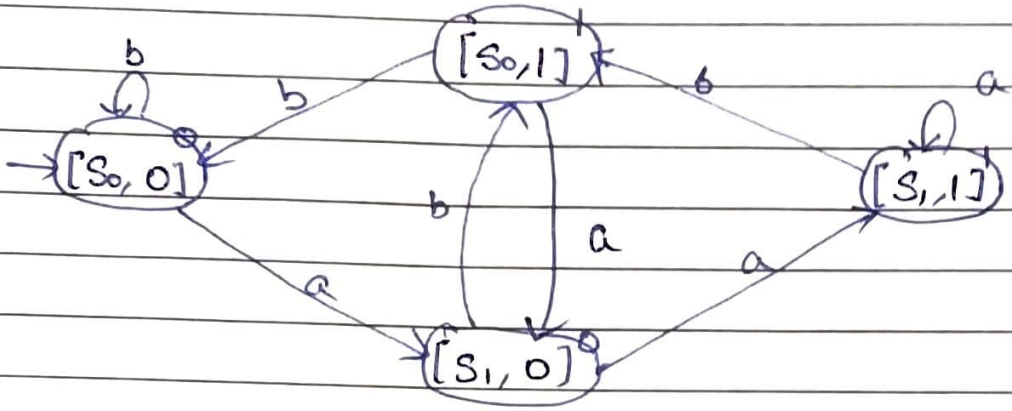
c. $\delta'([S_1,0],a) = [\delta(S_1,a), \lambda(S_1,a)]$
$= [S_1,1]$
$\delta'([S_1,0],b) = [\delta(S_1,b), \lambda(S_1,b)]$
$= [S_0,1]$
$\lambda'([S_1,0]) = 0$

d. $\delta'([S_1,1],a) = [\delta(S_1,a), \lambda(S_1,a)]$
$= [S_1,1]$
$\delta'[[S_1,1],b) = [\delta(S_1,b), \lambda(S_1,b)]$
$= [S_0,1]$
$\lambda'([S_1,1]) = 1$



MOORE

Q2. MEALY

Input	Result
abab	0101

MOORE

Input	Result
abab	00101