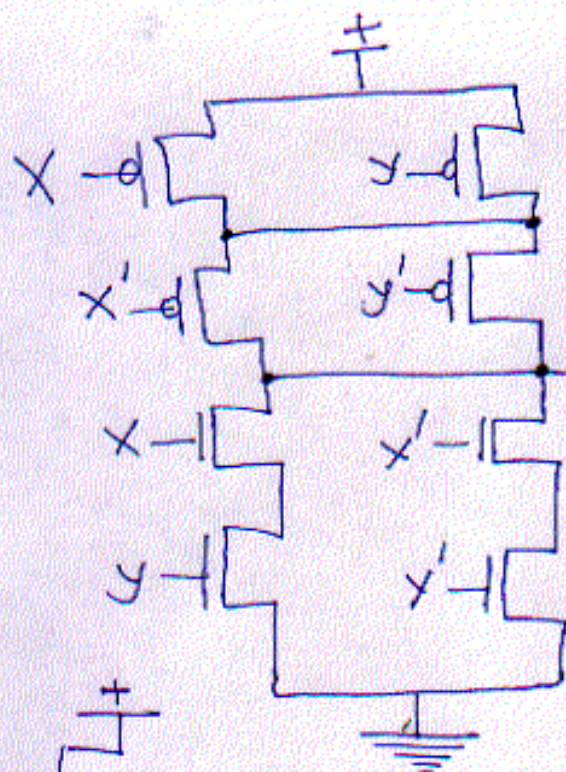


140L

Sample FINAL

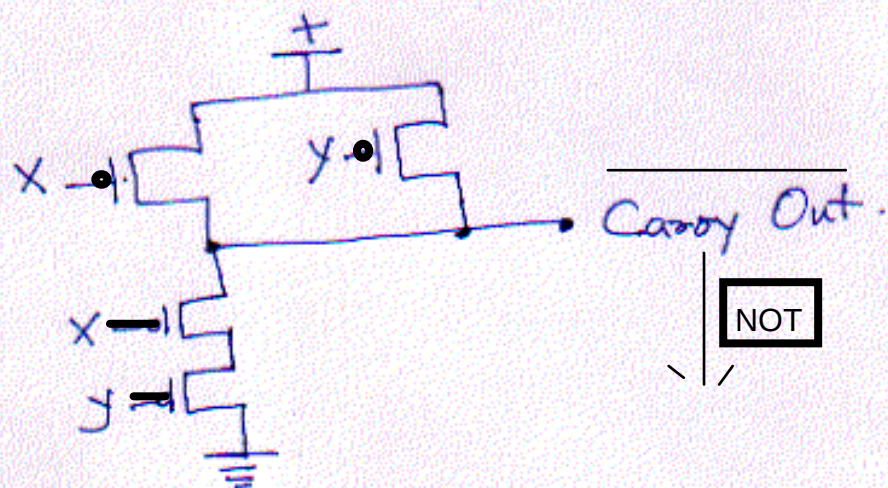
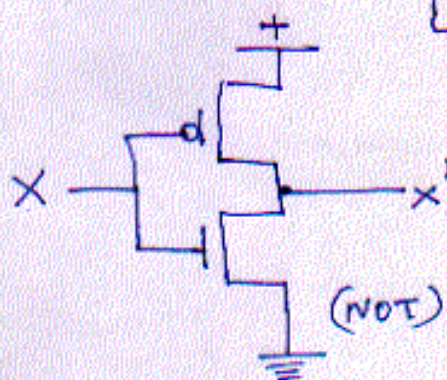
①



$$\text{Half Sum} = x \cdot y' + x' \cdot y$$

$$\text{Carry Out} = x \cdot y$$

$$\text{HS} \equiv (xy + x'y')'$$

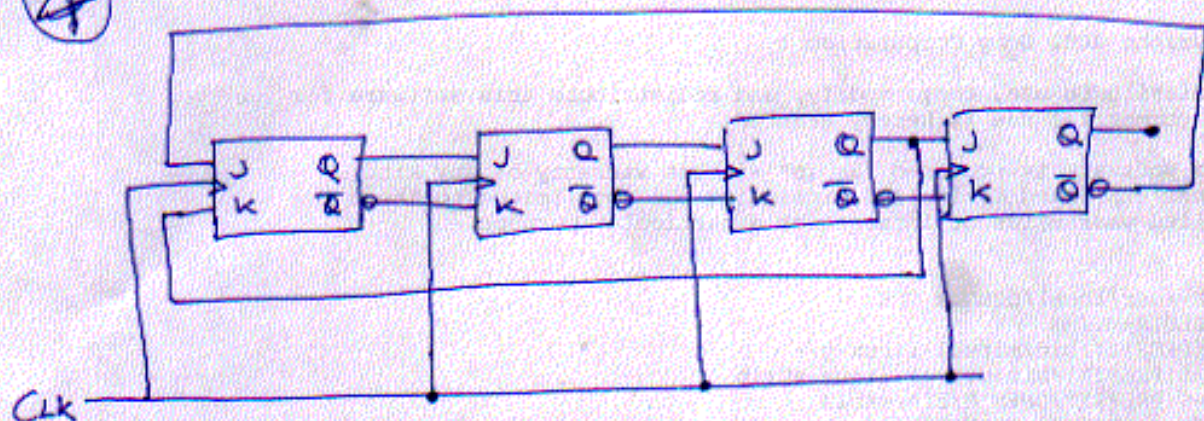


Problem 5

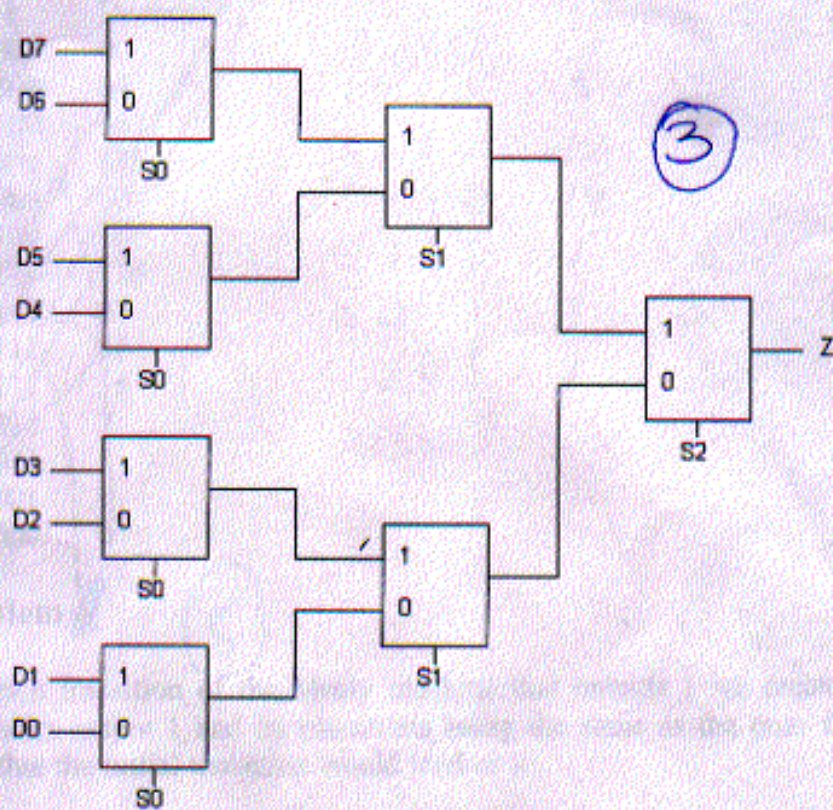
For each transition of the Mealy machine that outputs 1 we create a new state with output 1 and its transitions being the same as the ones from the state that the initial transition would lead us to.

PS	x=a	x=b	x=c	z
A ₀	E	B ₁	B ₀	0
B ₀	F ₀	B ₀	A ₁	0
E	A ₀	F ₁	F ₀	0
F ₀	B ₀	A ₀	F ₀	0
A ₁	E	B ₁	B ₀	1
B ₁	F ₀	B ₀	A ₁	1
F ₁	B ₀	A ₀	F ₀	1

4



0	0	0	0	—	0
~~1~~	0	0	0	—	8
1	1	0	0	—	12
1	1	1	0	—	14
0	1	1	1	—	7
0	0	1	1	—	3
0	0	0	1	—	1



(2) —

140LLAB

