# CE 1911

Homework 6

1 – Create a state transition diagram for a foosball game score keeper. The score keeper tracks the # of scores for each player and blows a siren when one player scores 5 goals. Inputs are reset, A scores, and B scores, outputs are A's score, B's score, and the siren.   30pts

2 – Given the attached state transition diagram: 35pts
   a) Create a state transition table
   b) Encode the states and redraw the state transition table
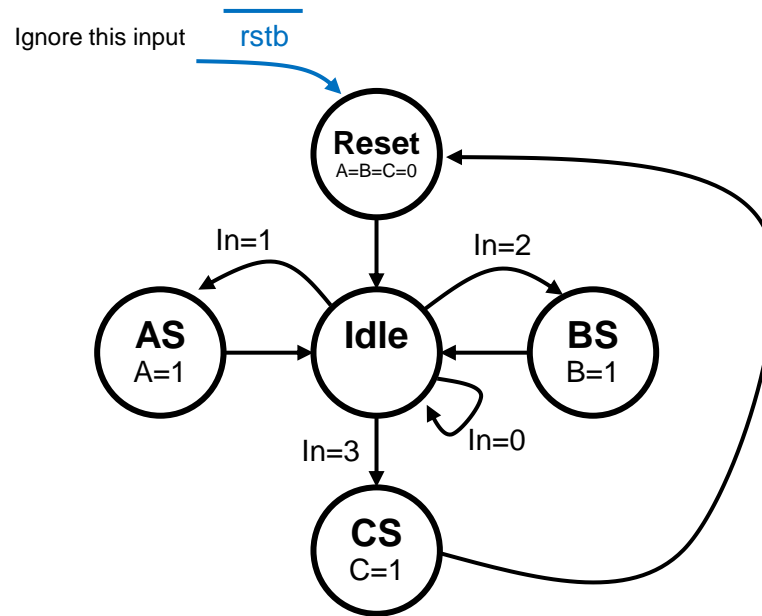
3 – Given the attached state transition tables: 35pts
   a) Create the equations for the Next State logic by inspection (no K-Maps)
   b) Create the equations for the Output logic using K-Maps
   c) What type of FSM is this? (Mealy or Moore)

S1	S0	IN1	NS1	NS0
0	0	0	1	0
0	0	1	0	1
0	1	0	0	1
0	1	1	0	0
1	0	0	1	0
1	0	1	1	1
1	1	0	1	0
1	1	1	0	0

S1	S0	IN2	Out1	Out0
0	0	0	0	1
0	0	1	1	0
0	1	0	0	1
0	1	1	0	0
1	0	0	0	1
1	0	1	1	1
1	1	0	1	0
1	1	1	1	1