

Disco II - Quiz 5

Name: _____

Box # _____

Here are the next state and output table for a finite state machine on the binary alphabet $\mathcal{I} = \mathcal{O} = \{0, 1\}$. It is a modification of a finite state machine from a previous homework.

ν	0	1
s_1	s_6	s_3
s_2	s_5	s_4
s_3	s_3	s_4
s_4	s_4	s_3
s_5	s_2	s_4
s_6	s_4	s_6

ω	0	1
s_1	0	1
s_2	0	1
s_3	1	0
s_4	1	0
s_5	1	1
s_6	0	1

- Minimize the machine.

- For the following pairs either state that they equivalent or give a minimal distinguishing string

pair	equivalent? (Y/N)	distinguishing string
s_1 and s_2		
s_2 and s_3		
s_1 and s_2		

