BLG 311E – FORMAL LANGUAGES AND AUTOMATA
SPRING 2017
HOMEWORK 1

1. Reduce the states of the incompletely specified Mealy machine below using complete cover and draw the state transition table of the reduced machine in Moore model.

	00	01	11	10
a	a/0	b/0	c/0	d/1
b	b/0	-/-	c/0	-/-
c	a/0	f/0	c/0	-/-
d	d/1	-/-	e/0	a/0
e	e/0	g/0	d/1	b/0
f	-/-	f/0	-/-	a/0
g	-/-	g/0	d/1	c/0

2. Reduce the states of the Moore machine given below. Then, draw the state transition table of the reduced machine in Mealy model.

	0	1	Output
a	a	d	0
b	a	b	0
c	e	c	0
d	a	d	0
e	a	d	1
f	e	c	0

IMPORTANT: You must do this homework **by hand** and **submit it using the box in the department secreteriat**.