

# EECS 837

## Homework Assignment # 2

due: September 24, 2019

80 pts. 1. For the following decision table

	Attributes				Decision
	Size	Color	Feel	Temperature	Attitude
1	big	yellow	soft	low	positive
2	big	yellow	hard	high	negative
3	medium	yellow	soft	high	positive
4	medium	blue	hard	high	so-so
5	medium	blue	hard	high	negative
6	medium	blue	soft	low	negative
7	big	blue	hard	low	so-so
8	big	blue	hard	low	positive

determine sets of certain and possible rules for all three concepts by the **LEM2** algorithm.

20 pts. 2. In general, for subsets  $X$  and  $Y$  of the universe  $U$

$$\overline{AX} - \overline{AY} \subseteq \overline{A}(X - Y)$$

where  $A$  is the set of all attributes.

Show a decision table, and subsets  $X$  and  $Y$  of  $U$  with

$$\overline{AX} - \overline{AY} \subset \overline{A}(X - Y).$$