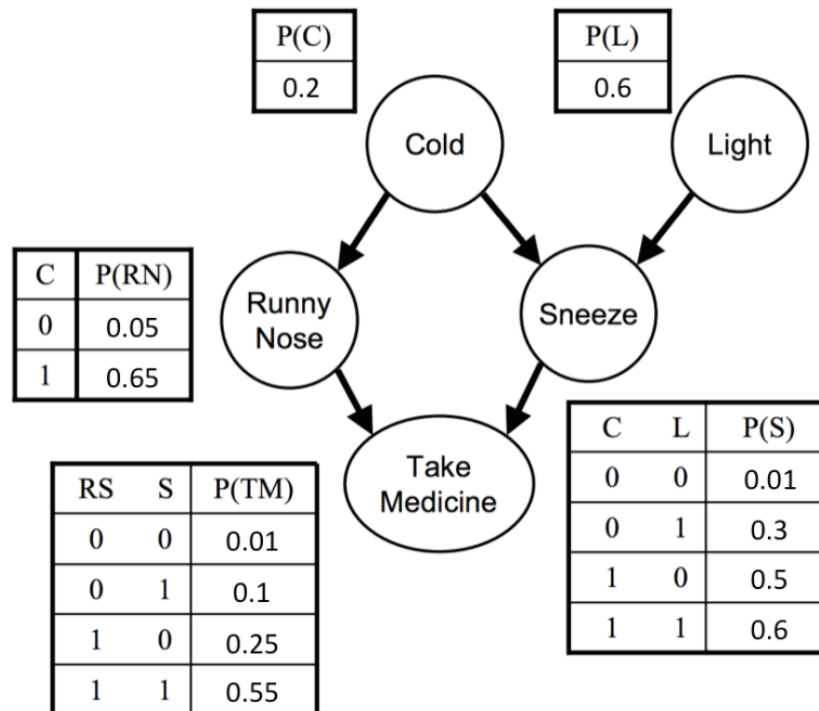


Homework 2  
ECE285  
Due: 11:59 pm PT on Feb 7

1. For the Bayesian network below, use variable elimination to calculate  $P(TM|L)$ . Please plug in the probability numbers in the tables during the calculation. (25 points)
2. For the Bayesian network below, use graph elimination to calculate  $P(TM|L)$ . Please plug in the probability numbers in the tables during the calculation. (25 points)



3. For calculating  $P(TM|L)$  from the Bayesian network above, find out the optimal elimination order that has the lowest complexity. (15 points)
4. For the COVID-19 prediction task (for cities in the San Diego area), design a graph neural network to perform this task. (35 points)