*Group Homework Credit Group L*

*To be presented on Mo., May 1, 2023*

a) Assume that the following belief network is given that consists of nodes A, B, C, D, and E that can take values of true and false.

* Is B**|**D,E,F d-separable from C**|**D,E,F? Give reasons for your answer!
* Is D |∅ d-separable from C|∅? Give reasons for your answer! ∅:=”no evidence”

b) For the Burgulary-Earthquake-Alarm-John\_Calls-Mary\_Calls Belief Network from Dr. Eick’s slides compute:

1. P(Alarm=Yes|Earthquake=Yes)

Annotate every step of your computations (e.g. “Bayes Theorem”, “Definition of P(A,B)”), mention not obvious assumptions your computations made (e.g. “as A|F is d-separable for B|F” P(A,B|F)=P(A|F)\*P(B|F)…”).