

# Statistical Data Mining II

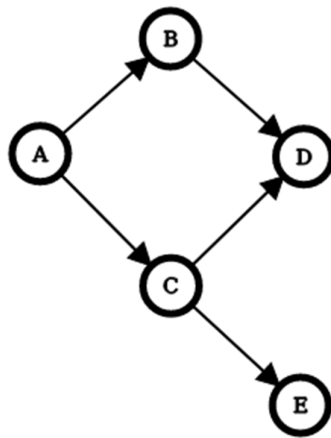
## Extra Credit Exercise

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1.

a)

The DAG satisfying the given conditional independence assumptions is as follows:



b)

The joint probability distribution of the above DAG is:

$$P(A, B, C, D, E) = P(A) P(B|A) P(C|A) P(D|B, C) P(E|C)$$