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CS 161 Homework 6

Question 1

Part (A)

$$A \perp \{B, E\}$$

$$B \perp \{A, C\}$$

$$C \perp \{D, B, E\} \mid A$$

$$D \perp \{C, E\} \mid A, B$$

Joe : finishlater

Part (B)

$$\text{markov blanket} = \{A, B, C, F\}$$

Part (C)

$$Pr(A, B, C, D, E, F, G) = Pr(a)Pr(B)Pr($$

Question 2

I. $\forall i (Food(i) \Rightarrow Likes(John, i))$

II. $\forall j (isApple(j) \Rightarrow Food(j))$

III. $Food(chicken)$

IV. $\forall x \forall y (Eats(y, x) \wedge \neg SickBy(y, x) \Rightarrow Food(x))$

V. $\forall w \left(\exists z [MadeSickBy(w, z)] \Rightarrow \neg isWell(w) \right)$

VI. $Eats(Bill, Peanuts) \wedge isWell(Bill)$

VII. $\forall m (Eats(Bill, m) \Rightarrow Eats(Sue, m))$