1 Logic I
Do problem 9.22 from the text.

2 Logic II
Do problem 9.23 from the text.

3 Conditional Independence
Prove that the two ways of defining conditional independence (page 2 on the slides) are equivalent. You might want to make an assumption about probabilities being non-zero to complete your proof. (Note that this is equivalent to problem 13.17 from the text but that problem 13.17 has a typo. This typo is corrected in the textbook errata.)

4 Bayesian Networks I
Do problem 14.8, parts a-d.

5 Bayesian Networks II
For this question, we will use the following probability distribution:
a) Prove that $C$ is conditionally independent of $A$ given $B$. *Hint: This is a little tedious because you need to compute a lot of things to prove this, but it’s not hard. Don’t forget that conditional independence must hold for all values of the variables.*

b) Provide the conditional probability tables for a Bayesian network for this distribution where variable $C$ has $B$ as its only parent, variable $B$ has variable $A$ as its only parent, and variable $A$ has no parents.