Homework #5

$\boxed{\textbf{Deadline: Friday, 13 March 2015, 13:00}}$

Question 1 (10 marks)

Consider the case of agendas that are closed under propositional variables and that contain several literals (taken to be premises) and a single compound formula and its complement (taken to be conclusions). Suppose a manipulator is only interested in which of the two conclusions ends up getting accepted. Analyse the computational complexity of the corresponding manipulation problem for the premise-based rule.

Question 2 (10 marks)

Suppose the conditions of the Condorcet Jury Theorem are satisfied for a jury with an odd number n of members. What is the probability of the majority rule returning the correct answer (assuming uniform priors)? Is it better to have $n = 3$ experts with 90% accuracy or $n = 99$ experts with 60% accuracy? Justify your answer.