UG Exam Performance Feedback
Second Year
2012/2013 Semester 1

Question 1(a) was generally answered correctly. There were a few problems though:
- sometimes in a state with $\neg r$ being the only clause splitting was done
- sometimes an extra (incorrect) model was given
- after finding a branch with a model extra branches were created
(b1) generally answered correctly
(b2) generally answered correctly, though some answers did not give the path. There were some incorrect answers starting at a state that is not an initial state.
(b3) generally answered correctly
(b4) many wrong answers; some showing paths starting at a state that is not an initial state and some not realising that an implication with a false left-hand-side is always true.
(c) generally answered correctly. A few wrong answers picking wrong initial clauses. A few answers tried to use WSAT instead of calculating probabilities. Some did not know how to calculate probabilities.

Question 2(a) Many wrong answers. Worst of all, the domain axiom was not given, so it is unclear where these errors come from - not knowing the domain axiom or miscalculating.
(b) Many errors because of not knowing tableau rules.
(c1) Quite a few wrong answers. For right "no" answers some explanations were incomprehensible.
(c2) Some answers gave states instead of formulas.

Question 3(a) Many errors in rectification: the first bound variable was renamed away, but not second. Likewise (though rare) some free variables were renamed.
(b) It was generally answered correctly. There were a few answers with partial models.
(c) Probably around 2/3 of all answers were correct.

Question 4 (a) There were several answers where the formulas was treated as propositional (quantifiers disregarded). A very common problem was creating unnecessary branches. Another common issue was not specifying if the branch is conjunctive or disjunctive.
(b) Generally correct but some students used GSAT instead of WSAT.

Question 5(a) Many small errors, very few students get distributivity right, some uses CNF transformation with naming
(b) Strangely, very few correct answers. © Mostly unanswered