1. Explain how “possible worlds” semantics is a generalization of the truth-functional semantics.

2. Prove the following semantical rule: If $v_I(\alpha \supset \beta, w_i) = T$ at all worlds $w_i$ such that $Rww_i$, then $v_I(\alpha \supset \beta, w) = T$.

3. Propose and defend a rule of Strict Reiteration for the ‘◦’ and of ◦ Introduction.

4. Derive the following theorem in the basic system: $\Box(A \land B) \equiv (\Box A \land \Box B)$.

5. Derive the following theorem in the basic system: $(\Box A \supset \Diamond B) \supset \Diamond(\Box A \supset B)$. 