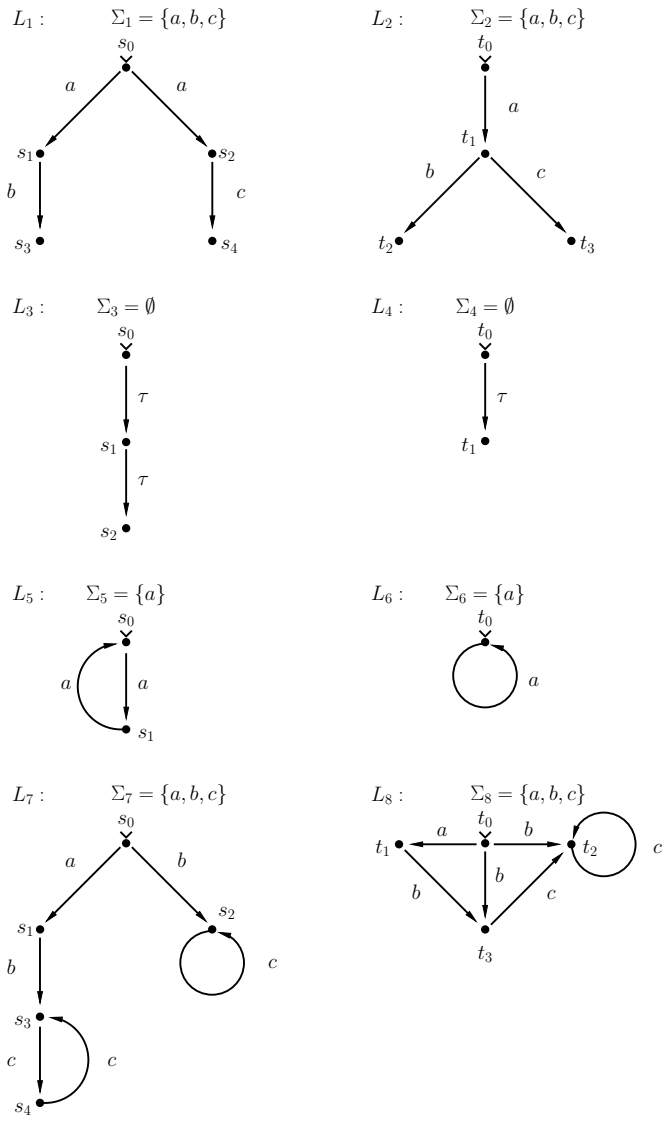
T–79.4301 **Spring 2006**
Parallel and Distributed Systems
Tutorial 7 - Wed Mar 29, 2006 11:15 and Fri Mar 31, 2006 14:15

1. Consider the following LTSs L_1 to L_8.



a) Is it the case that $L_1 \sim L_2$?

b) Is it the case that $L_3 \sim L_4$?

c) Is it the case that $L_5 \sim L_6$?

d) Is it the case that $L_7 \sim L_8$?

(In each case, either find a bisimulation relation to show that the two LTSs are bisimilar, or show that no such bisimulation relation exists.)

2. Find two LTSs L and L' such that $L \leq_{sim} L'$ and $L' \leq_{sim} L$ hold, but $L \not\sim L'$ does not hold (L and L' are not bisimilar).

3. Find two LTSs L and L' such that $L \leq_{tr} L'$ holds, but it is not the case that $L \leq_{sim} L'$ holds.