

**Elective in Software and Services**

*(Complementi di software e servizi per la società dell'informazione)*

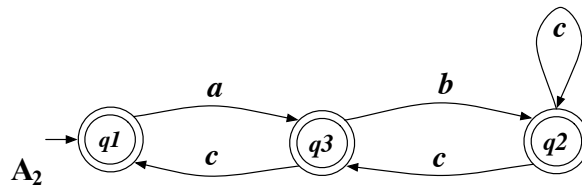
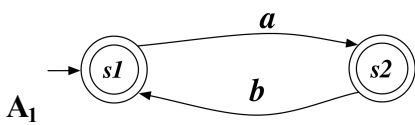
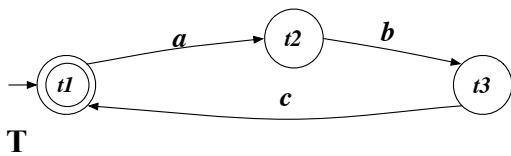
2009/10

16/04/2010

Time to complete the assignment: 2 hours

**Part 1 (Composition Synthesis)**

Given the following target **T** service and available services **A<sub>1</sub>**, **A<sub>2</sub>**, check whether a composition exists, illustrating in detail the procedure followed. If the composition exists, produce the output relation of orchestrator generator. If not, single out the target state that cannot be simulated/ND-simulated, and propose a change to the available services so as to guarantee the composition.



**Part 2 (Theoretical Question)**

Explain (1) what are game structures for safety game, and (2) how service composition can be reduced to a safety game.