## Sapienza Università di Roma

Facoltà di Ingegneria – Corso di Laurea Magistrale in Ingegneria Informatica

# **Service integration**

### **Elective in Software and Services**

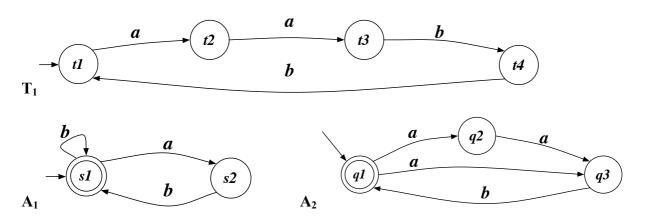
(Complementi di software e servizi per la società dell'informazione) 2009/10

#### 11/02/2011

Time to complete the assignment: 2 hours

# Part 1 (Composition Synthesis)

Given the following the available services  $A_1$  and  $A_2$  and the target service  $T_1$ , check whether a composition realizing it exists, and if it does, 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)

(a) Explain why if two transition systems are in ND-simulation they are also in simulation. (b) Show an example of two transition systems that are in ND simulation. (c) Show an example of two transition systems that are simulation, but are not in ND-simulation.