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.