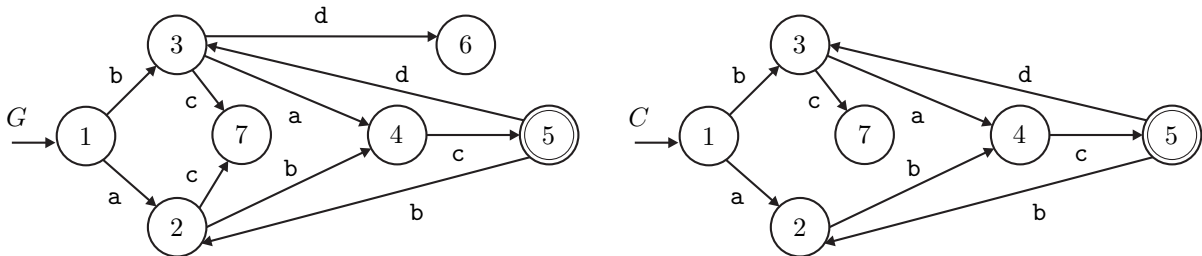


Exercise Sheet 8: Decentralized Control**Problem 20:**

Consider the system G and specification automaton C depicted in the following figure.



The conjunctive decentralized control architecture with two supervisors, S_1 and S_2 , is to be used to control G . The specification language is $K = L(C)$. The local sets of observable and controllable events are: $\Sigma_{o,1} = \{a, b, c\}$, $\Sigma_{o,2} = \{b, c, d\}$, $\Sigma_{c,1} = \{a, c\}$ and $\Sigma_{c,2} = \{b, d\}$.

- Verify that K is co-observable with respect to the above information.
- Modify one or more of the four sets $\Sigma_{o,1}$, $\Sigma_{o,2}$, $\Sigma_{c,1}$ or $\Sigma_{c,2}$ until K is no longer co-observable.