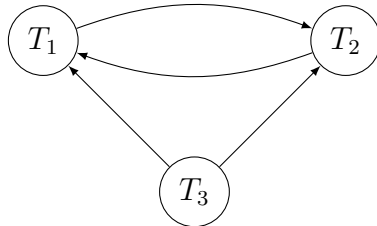


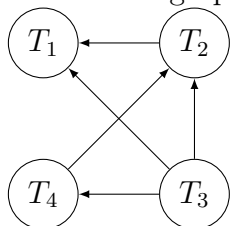
## Problem 1

**S1:** Q1: Precedence graph:



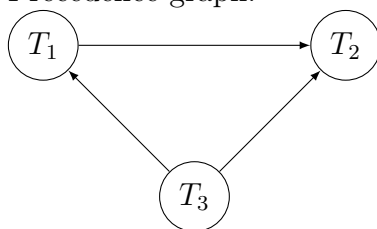
Q2: This schedule is not conflict-serializable because the precedence graph for the schedule is cyclic.

**S2:** Q1: Precedence graph:



Q2: This schedule is conflict-serializable because the precedence graph for the schedule is acyclic. An equivalent serial schedule would be  $T_3, T_4, T_2, T_1$ .

**S3:** Q1: Precedence graph:



Q2: This schedule is conflict-serializable because the precedence graph for the schedule is acyclic. An equivalent serial schedule would be  $T_3, T_1, T_2$ .