

## Part 1

### A)

T1:  $R_1(X)$ ,  $R_1(Y)$ ,  $W_1(X)$

T2:  $R_2(X)$ ,  $R_2(Y)$ ,  $W_2(Y)$ ,  $R_2(X)$ ,  $R_2(Y)$ ,  $W_2(X)$ ,  $R_2(Z)$ ,  $W_2(Z)$

$R_1(X)$ ,  $R_2(X)$ ,  $R_1(Y)$ ,  $R_2(Y)$ ,  $W_2(Y)$ ,  $W_1(X)$ ,  $R_2(X)$ ,  $R_2(Y)$ ,  $W_2(X)$ ,  $R_2(Z)$ ,  $W_2(Z)$

NOT conflict-serializable.

$W_1(X)$  is between  $R_2(X)$  and  $R_2(X)$ .

Because  $R_2(X)$ - $W_1(X)$  forms a read-write conflict and  $W_1(X)$ - $R_2(X)$  forms a write-read conflict, it can not be transformed into a serial schedule by non-conflicting actions.

### B)

Schedule 1: Serializable

Schedule 2: Serializable

Schedule 3: NOT Serializable

By calculating, schedule 1 and 2 have the same result as the serial schedule, but schedule 3 does not.