

S1) Is serializable because the graph is cycle free. Goes from T1 to T2 and does not go back.

Equivalent:

T1	T2
lock A lock B lock C unlock A unlock B unlock C	lock A lock C unlock A unlock C

S2) Is not serializable because the graph goes from T4 to T3 then back to T4. Therefore there is a cycle.

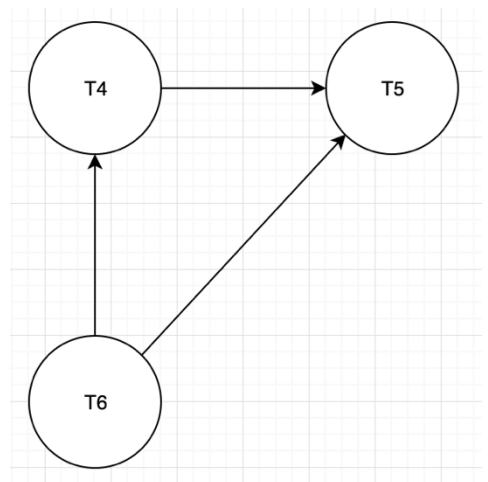
S3) Is serializable because the graph is cycle free.

T6: wlock A
T6: unlock A
T4: rlock A
T6: wlock B
T5: rlock A
T6: unlock B
T4: wlock B
T5: unlock A
T4: unlock A
T4: unlock B
T5: rlock B
T5: unlock B

R	W
T4: rlock A	
T5: rlock A	
T5: rlock B	

W	W
T6: wlock A	
T6: wlock B	T4: wlock B

W	R
T4: rlock A	T6: wlock A
T5: rlock A	T6: wlock A
T5: rlock B	T6: wlock B
T5: rlock B	T4: wlock B



Equivalent:

T4	T5	T6
rlock A	rlock A	wlock A unlock A wlock B
unlock B unlock A	wlock B unlock A	unlock B
	rlock B unlock B	

S4) Is not serializable because there is a cycle in the graph.

T6: wlock A
T7: rlock B
T6: unlock A
T7: unlock B
T6: wlock B
T5: rlock A
T6: unlock B
T5: unlock A
T7: wlock A
T5: rlock B
T7: unlock A
T5: unlock B

R	W
T7: rlock B	T6: wlock B
T5: rlock A	T7: wlock A
T5: rlock B	

W	W
T6: wlock A	T7: wlock A
T6: wlock B	

R	W
T5: rlock A	T6: wlock A
T5: rlock B	T6: wlock B
	T7: wlock A

