

- 1) For each of the following process state transition, say whether the transition is legal and how the transition occurs or why it cannot.
- a) Change from thread state WAIT to thread state RUNNING
 - i) Transition is illegal because the CPU scheduler decides which process is ready to run next. A process cannot transition from wait to running. It has to be wait -> ready -> running
 - b) Change from thread state RUNNING to thread state WAIT
 - i) Transition is legal because the process might be waiting for another action to be completed before it can start running again.
 - c) Change from thread state READY to thread state WAIT
 - i) Transition is illegal because the process cannot go from Ready to Wait. Only a running process can be set to wait but when the process is Ready then the CPU has to execute it and can't switch to wait. Ready -> running -> wait.