Name: [   ]

#1. A production system has three machines working in parallel. The up times of a machine is assumed to be iid, exponentially distributed with mean 3 hours. When a machine is down, its repair times are iid, exponentially distributed with mean 1 hour. There are two repairmen, working at the same speed. Using a CTMC to find the long-run fraction of time that all machines are up and running.**[5pt]**