Describe as completely as you can the Pissarides model of the labor market, and discuss how to determine the steady state equilibrium unemployment rate $u^*$. What happens out of steady state – for example, if we start out with $u_0 \neq u^*$?
Part I. Consider an overlapping generations economy where all agents born at time $t$ have utility $U(c_{t1}, c_{t2}) = c_{t1} + \beta \log c_{t2}$ and endowment $(e_1, e_2)$. The stock of fiat money evolves according to $M_{t+1} = (1 + \pi)M_t$, and population is constant. Describe the set of equilibria.

Part II. Consider a worker searching for a job who receives an i.i.d. offer $w$ each period. Let $\lambda$ be the probability of any job ending in any period while employed. Assume an infinite horizon, a constant discount factor $\beta$, and a constant instantaneous payoff to not working $b$. Also assume that quits are not allowed. Make other assumptions as you see fit. Show the optimal strategy involves a reservation wage $w^*$. Derive the mapping discussed in class, $T(w)$, with the following property: if $w_0 = b$ then the sequence defined by $w_{n+1} = T(w_n)$ converges to $w^*$ as $n \to \infty$. Interpret this result in terms of economic intuition (hint: think about horizons).