

NAME:

ECON 603
Macroeconomic Theory
Prof. Yetkiner

3 January 2014

Midterm

Answer **two** of the following **three** questions.

- 1. (50 points)** Suppose that utility function U of a representative agent is $U = C^\alpha \cdot l^{1-\alpha}$, where C is consumption of physical goods and l is consumption of leisure. Suppose that production technology is represented by $Y = K^\beta \cdot N^{1-\beta}$ where K is physical capital stock, and N is labor stock. We assume that $h = l + N$, w is the real wage, and π is real profit. There is no government in the economy. Find the optimal values of C , l , N , w , Y , and U under
 - a)** $K = \bar{K}$ (the short run interpretation).
 - b)** K is variable (the long run interpretation).
- 2. (50 points)** Discuss the competitive solution of Ramsey model in full detail.
- 3. (50 points)** Discuss one-sector version of Rebelo's (1990) AK model in full detail.