

# Homework 5

April 24, 2017

**Due** at 05/02/2017 1:00 pm, please do not submit in the middle of the class

## 1 Engel's Law and migration

Please use case study 1and 2 slides to help you.

1. Set up Engel's law by graph. Label correctly the demand curve for each sector, the labor amount in each sector, the market clear wage rate, and the total labor force.
2. Suppose now there is an income growth, remember the demand of labor force is affected by income, wage rates of both sectors. In what possible situation, the new market clear happens when there is a migration to the urban sector.
3. Derive the value of marginal product and draw the value of total production in manufacturing sector.
4. Draw the dead weight loss if the two sectors their wage rate is not same.
5. Now the wage rate in the manufacturing sector drops more than the increase of wage rate in agricultural sector, explain and draw one possible situation of the net gain in value of total output.

## 2 Todaro Model

Please use case study 2 slides to help you.

1. If unemployment is allowed, what is the equilibrium condition?
2. Draw in the graph, the demand, wage rates of both sectors, the employed labor in urban sector.
3. Draw the convex curve function of the unemployment rate, and label the equilibrium level or unemployment in your graph.
4. Why the unemployment rat curve is convex?

5. In the long run, if the employment rate is doubled, what will happen to the new urban unemployment rate?