Bachelor of Economics
THAMMASAT UNIVERSITY

Semester: 1/2011

EE 311 Microeconomics Theory

Exercise 11: Factor Markets

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1. "If the wage rate increases and workers work more hours, then leisure is an inferior good." Do you agree? Why or why not?

2. Assume that Somchai is now working 8 hours per day at the current wage rate of 100 Baht per hour. His boss is considering two alternative ways to induce Somchai to work more hours. He is considering (a) increasing the hourly wage rate to 200 Baht per hour, or (b) paying an overtime rate of 400 Baht per hour for additional hours worked beyond 8 hours per day. Use a diagram to show a particular situation where Somchai will prefer the introduction of overtime pay as opposed to an increase in the wage rate. Make any additional assumptions as necessary.

3. Assume that textile production is perfectly competitive, but some textile factories are able to buy the services of textile workers monopsonistically. Use the data in the following table to answer the questions below:

Labor (L)	Average Factor Cost of Labor	Total Product (Q)
0	0	0
1	60	10
2	80	18
3	100	24
4	120	28
5	140	30

   (a) If the price of textiles is 45 Baht per unit, what is the profit-maximising level of employment?
   (b) What is the size of exploitation?
   (c) If textile workers form a union, speculate on what would happen in this labor market.

4. Assume that Firm A uses only one factor of production (L), and has the following production function:

$$Q = -L^3 + 30L^2 + 292L$$

   The firm sells its output at 27 Baht per unit, and is a monopsonist in the employment of labor. At equilibrium, the firm is employing 18 units of labor at which point the elasticity of supply of labor is 2. What is the wage rate that the firm is paying?

5. Suppose that the demand for labor is: $L_D = 9 - 0.5w$ and the supply of labor the firm faces is: $L_S = -6 + 2w$ where L is the number of hours worked and w is the wage rate per hour.
   (a) Find the level of L and w at the profit-maximising equilibrium.
   (b) Suppose that the government sets a minimum wage of 7 Baht per hour. Find the new equilibrium value of L and state whether there is unemployment. If so, indicate the size of unemployment.
   (c) What is the optimal level for the minimum wage? Explain.