一、是非題(True or False—Please provide brief explanations)(25%)

1. Critics of advertising argue that advertising leads to less elastic demand for products and a larger markup of price over marginal cost.

2. According to Coase theorem, whatever the initial distribution of rights, the interested parties can bargain to an efficient outcome.

3. In the Tragedy of the Commons, joint action among the individual citizens would be necessary to solve their common resource problem unless the government intervenes.

4. Politicians often point to wage differentials as evidence of labor-market discrimination against ethnic minorities and women; however, economists argue against this approach because people differ in the kinds of work they are willing and able to do.

5. It takes Russell 6 hours to produce a bushel of corn and 2 hours to wash and polish a car. It takes Wilma 6 hours to produce a bushel of corn and 1 hour to wash and polish a car. Wilma and Russell cannot gain from specialization and trade, since it takes each of them 6 hours to produce 1 bushel of corn.

二、問答題 (75%)

1. The demand curve for ski lessons is given by $D(p_D)=100-2p_D$ and the

supply curve is given by $S(p_S)=3p_S$

(1) What is the equilibrium price? What is the equilibrium quantity? Sketch both the demand and supply curves on the same graph (9%)

(2) A tax of $10 per ski lesson is imposed on consumers. Write an equation that relates the price paid by the consumers to the price received by producers. What are the new equilibrium price and quantity? (8%)

(3) Calculate the consumer surplus before and after the tax. (8%)

2. A firm needs to employ both capital and labor to produce output. Its

production function is $Y = K^{\frac{1}{4}}L^{\frac{1}{4}}$

where K is capital, L is labor, and Y is output.

(1) Suppose $p_K = 4$, $p_L = 1$, what is the minimum total cost to produce Y units of goods? What is the long-run average cost? What is the long-run marginal cost? (12%)

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(2) If the price for the output P = 2, how many units of y will be produced and what is the profit? (8%)

(3) Now suppose that the firm currently employs 4 units of capital, and cannot change that amount for a while, but it is free to adjust the amount of labor. If P = 2, how many units of Y will the firm produce in the short run? (5%)

3. There are only two firms in an industry. The demand in this industry is given by

$$Y = 75 - \frac{P}{4}$$

where Y is the quantity demanded, and P is the price. The marginal cost for both firms is constant $60 a unit, and there is no fixed cost.

(1) Suppose the two firms are engaged in Cournot (simultaneous quantity setting) competition. What are their reaction functions? (10%)

(2) What are the equilibrium quantities and profits for the two firms? (10%)

(3) Is the Cournot equilibrium a Nash equilibrium? If it is true, explain why it is so, if not, give a counter example. (5%)

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