國立成功大學105學年度碩士班招生考試試題

系　所：國際企業研究所

考試科目：經濟學

考試日期：0228，節次：2

※ 考生請注意：本試題不可使用計算機。　請於答案卷(卡)作答，於本試題紙上作答者，不予計分。

1. **(20%)** United Nation has a strong interest in promoting educational level for underdeveloped countries where most families essentially spend no resource on the children if they have to pay for the education. A special UN education committee proposes two approaches of financial support for this problem.
   Approach 1: Provide a fixed amount of money enough for paying the minimum level of education.
   Approach 2: Provide a non-transferrable coupon that allows for receiving the minimum level of education free of charge.
   Use graphical analysis of consumption sets between education and other goods to support your answer to the following questions:
   a. Which approach is more effective in insuring the minimum required education?
   b. Which approach can better enhance a family's welfare?

2. **(40%)** In a monopoly industry, the demand curve is $P = 500\text{-}6Q$. Assume the cost curve for the monopoly is $C=2Q^2+20Q+800$. Answer the following questions
   a. What is the optimal level of output and profit.
   b. Compare the optimal output for the monopoly with the output when the industry is operated as a purely competitive industry, when the cost curve represents the aggregate cost curve of all firms in the industry.
   c. If a sales tax of T dollars per unit output is imposed on the industry, how it would affect the optimal output and profits in part a and b?
   d. How your answer in part c will change if the imposed tax is a lump-sum (fixed amount) payment, regardless of the output level?

3. **(40%)** Suppose a government wants to subsidize farmers. The demand curve of the farming industry is $P = 500 - 2Q$ and the supply curve $P = 20 + Q$. The guaranteed price that government will pay is \$200. The traditional approach of subsidization is that the government will purchase the excess amount of supply at the pre-set guaranteed price.
   a. What is the industry total output at the guaranteed price ? How much the government has to pay for the subsidy under the traditional approach?
   b. Now a new approach is proposed: the government will pay for the difference between the guaranteed price, \$200, and the market price at the output level in part a. Under this new approach, what is the amount of total subsidy?
   c. Some economists suggest that the new approach will be cheaper if the price elasticity of demand for the product is greater than one. What is your comment on this argument, true or false? Support your answer by a rigorous diagrammatical analysis.
   d. Which approach is less costly for the government to implement?