國立高雄大學一百學年度研究所碩士班招生考試試題

科目：經濟學
考試時間：100 分鐘

系所：
統計學研究所(風險管理組)　　是否使用計算機：否
本科原始成績：100 分

I. Carefully evaluate following statements. (40%)

1. Taiwan exports tools to the United States. Consumers in Taiwan will probably pay a lower price for tools with free trade than they would with a closed economy.
2. Holding all else constant, a decrease in the real interest rate on Taiwan's assets will increase the equilibrium U.S. dollar/NT$ exchange rate.
3. If a lawyer is a better typist than his/her secretary, then he/she should type by himself/herself.
4. The Central Bank can increase the price level by conducting open market sales and lowering the discount rate.

II. A market consists of three people, A, B, and C, whose individual demand equations are as follows: (20%)

A: $P = 35 - 0.5Q_A$

B: $P = 50 - 0.25Q_B$

C: $P = 40 - 2.0Q_C$

The industry supply equation is given by

$$Q_S = 40 + 3.5P.$$

(a) Determine the equilibrium price and quantity.
(b) Determine the amount that will be purchased by each individual.

III. Consider a product for which demand is given by the equation (40%)

$$P = 950 - Q_T$$

where Q_T is the total amount produced by all of the suppliers in the markets. Suppose that the average and marginal costs are constant equal to $50.

a. In a perfectly competitive market, determine the equilibrium price and quantity. Calculate the consumer surplus.
b. Find the market price and output when there exists only a single firm. Calculate the firm's profit.
c. Consider a market that has two sellers.
   i. Find the Cournot equilibrium.
   ii. Assume that Firm A is a quantity leader. Find the Stackelberg equilibrium.