國立台灣大學商學研究所博士班入學考試試卷（90 學年度）

科目　個體經濟學

1. 自從成大 MP3 事件後，許多新聞的焦點集中在音樂產業。請問你音樂產業的成本函數有什麼特性？這對音樂產業的定價有什麼影響？你認爲有什麼辦法可以提高音樂產業的利潤？（25%）

2. 在美國的購物中心（shopping mall）往往包括指標性的公司（例如有知名度的大型百貨公司）和比較小型的商店。購物中心往往對指標性公司和小型商店收取不同的租金。請問你認爲購物中心爲什麼要這樣做？如果你負責台北市一家新型購物中心，這個中心設在 SOGO 百貨公司附近，請問你是否會對指標性公司和小型商店收取不同的租金？（25%）

3. A monopolist considers the possibility of entering a foreign market. Based on some marketing research, the inverse demands for the current domestic market and the foreign market are as follows:

$P_d=6- q_d$,

$P_f=3- q_f$.

The total cost function for quantity q is $C(q)=q^2/2$. Regarding whether to expand into the foreign market, one manager, Mary, suggests that the company should enter the foreign market and charge different prices to these two markets. However, another manager, John, argues that the demand elasticity in the foreign market is higher than that in the domestic market. Moreover, the price in the foreign market must be lower than $3 to generate any sales in the foreign market. For these reasons, there is no point to expand into the foreign market by charging a price that is lower than that the company is able to charge in the domestic market.

(i) Derive the optimal domestic price and the associated profits when the company only serves the domestic market.

(ii) Derive the optimal prices and the associated profits for the foreign market and the domestic market when the company expands into the foreign market.

(iii) Do you agree with John or Mary? Justify your answer by giving some intuitions.

(25%)

（續背面）

4. A monopolist sells two products, a high-end product (with quality q_2) and a low-end product (with quality q_1), targeted to a high segment (denoted by H) and to a low segment (denoted by L), respectively. The two segments are of the same size. Consumers buy at most one unit of a product (either q_2 or q_1 but not both). The willingness to pay of a consumer in segment i for the product q_j is equal to $\theta_i q_j$, i=H, L, j=1, 2, where $\theta_H > \theta_L$. Let p_1 and p_2 be the prices of the low-end product and the high-end product, respectively. The per-unit production cost for quality q is equal to cq^2.

(i) If the monopolist can discriminate the two segments of consumers, what would be the optimal prices p_1 and p_2 charged for the low-end product and the high-end product (which are targeted to segment L and H, respectively)? Design the optimal product line (q_1*, q_2*).

(ii) Now suppose that the monopolist cannot distinguish consumers in the high segment from consumers in the low segment. Given (p_1, p_2), what would be the associated consumer surplus for a consumer in the high segment if he buys the low-end product q_1, and if he buys the high-end product q_2, respectively? For the consumer (in the high segment) to buy the high-end product instead of the low-end product and to obtain nonnegative surplus, what conditions do the prices p_1 and p_2 have to satisfy?

(iii) Suppose that the monopolist sets p_1 to capture the whole consumer surplus from the low segment. Derive the optimal price p_2 that leads to successful targeting of the high-end product to the high segment. Given the prices derived above, will a consumer in the low segment really prefer to buy the low-end product?

(iv) Given the optimal prices (p_1, p_2) derived in (iii), design the optimal product line (q_1*, q_2*) for this monopolist. Contrast this result with that in (i) and explain.

(25%)

試題請隨卷繳回