

考試科目 Course	經濟學原理	經濟	日期 Date, Period	7月0日 第2節	試題編號 Course No.
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1. 以圖形表示可變生產要素的總產出、平均產出、及邊際產出，並分析生產的三個階段，合理的生產階段在那裡？(25分)
2. 以鉅額需求曲線 (kinked demand curve) 圖形，分析寡佔市場的價格特性。(25分)
3. 凱因斯學派認為貨幣供給增加會如何影響經濟活動？以圖形說明之。(25分)
4. 何謂收縮差距 (deflationary gap)？若一國存在100億元的收縮差距，其邊際儲蓄傾向為0.2，則其國民所得水準將有何變化？若要消除此一差距，政府開支或租稅者應變動多少？(25分)

*本試題共四大題，請務必依照題目順序回答 國立政治大學圖書館

1. Of the following production functions, which exhibit increasing, constant, or decreasing returns to scale?

- (a) $F(K, L) = K^2L$ (6 points)
 (b) $F(K, L) = 10K + 5L$ (6 points)
 (c) $F(K, L) = (KL)^{0.5}$ (6 points)

2. A consumer has some fixed money income Y which he spends on two goods X_1 and X_2 . The prices of X_1 and X_2 are fixed at p_1 and p_2 and the consumer's utility function is

$$U = \alpha_1 \log X_1 + \alpha_2 \log X_2 - \alpha_3$$

- (a) Derive the demand curves for X_1 and for X_2 . (10 points)
 (b) Show that the demand curves are homogeneous of degree zero in money income and commodity prices. (8 points)
 (c) Derive the income elasticity of demand for each good. (8 points)

3. Harold Schmidt has been given permission to sell lemonade on the street corners at a fixed price of 10 cents a glass. Given the following production function and factor prices

$Q = 9(X_1^{2/3} + X_2^{2/3})$ and $r_1 = 6$ cents, $r_2 = 12$ cents, where X_1 and X_2 are ounces of pure artesian water and lemon juice.

- (a) Derive the first order conditions for profit (π) maximization in the Schmidt enterprise. (8 points)
 (b) Show that the elasticity of substitution between X_1 and X_2 is equal to a constant. (6 points)
 (c) Derive equilibrium values for X_1 , X_2 , Q and π . (12 points)

4. Suppose that BMW can produce any quantity of cars at a constant marginal cost equal to \$15,000 and a fixed cost of \$20 million. You are asked to advise the CEO as to what prices and quantities BMW should set for sales in Europe and in the U.S.

The demand for BMWs in each market is given by:

$$Q_E = 18,000 - 400P_E \text{ and } Q_U = 5,500 - 100P_U$$

where the subscript E denotes Europe, the subscript U denotes the United States, and all prices and costs are in thousands of dollars. Assume that BMW can restrict U.S. sales to authorized BMW dealers only.

- (a) What quantity of BMWs should the firm sell in each market and what will the price be in each market? What is the total profit? (18 points)
 (b) If BMW were forced to charge the same price in each market, what would be the quantity sold in each market, the equilibrium price, and the company's profit? (12 points)