國 立 淸 華 大 學 命 題 紙

- 本部份包括四題 共計五十分
- 請在答案卷上寫清楚各題答案的題號
- 1. (10 points) In a recent study, it was found that smokers are happier with a higher tax on cigarettes. Assume that cigarettes are like any other consumption good. Write a short explanation of how these findings are not compatible with the utility maximization (budget lines and indifference curves) framework. It may help you to try to draw the budget lines and indifference curves with cigarettes on one axis and all other goods on the other axis. Assume that the tax increase would have the same effect as an increase in the price of cigarettes. What does this say about the utility that smokers receive from consuming a cigarette?
- 2. (15 points) Suppose that society can be divided into two groups, a wealthy class and a poor class. Both groups consume only two goods, frozen pizza and caviar. For each poor consumer, the income effect of a change in the price of frozen pizza reinforces the substitution effect. For each wealthy consumer, the income effect opposes and outweighs the substitution effect.
 - (a) For which class are frozen pizzas a Giffen good? A normal good? an inferior good?
 - (b) Illustrate graphically the effect of a decrease in the price of a frozen pizza on an individual's consumption in each class. Label the substitution and income effect.
- 3. (15 points) Political campaigns are in the business of producing votes. Imagine that votes are produced with two inputs: television advertising (T, measured in thousands of viewers) and newspaper advertising (N, measured in thousands of readers). The production function is given by: $V = f(T,N) = (TN)^{1/2}$ where V is thousands of votes. Therefore, marginal products are given by: $MP_T = \frac{1}{2}(N/T)^{\frac{1}{2}}$ and $MP_N = \frac{1}{2}(T/N)^{\frac{1}{2}}$. Television advertising costs \$4 per thousands viewers ($P_T = 4$) and newspaper advertising costs \$1 per thousands readers ($P_N = 1$). Suppose initially that, because it must be scheduled months in advance, TV advertising is fixed in the short run at: T=16.
 - (a) Does the "Law of Diminishing Marginal Productivity" hold for newspaper advertising? Now suppose that the campaign can freely choose both types of advertising.
 - (b) Does the production of votes exhibit increasing, decreasing or constant return to scale, or the return to scale vary depending on the level of votes? Explain.
 - (c) Find the cost-minimizing amount of both kinds of advertising for V=20 thousand votes.
- 4. (10 points) Many people claim that the government's anti-drug program is ineffective. One explanation of why the government's anti-drug tactics are not successful is that the focus is on cutting supply rather than cutting demand. Assuming that drug smuggling 'firms' are competitive, use graphs to explain why it is very difficult to decrease the supply of drugs in the long run. (Hint: Think of the effect of a decrease of market supply in the short run for an individual drug smuggling firm.)

第二部分(分數標列於各題題尾)

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- (a) 請分別對國民生產毛額、國內生產毛額、以及國民所得加以 定義。(6分)
- (b) 當台灣開始實施家計生產有給職制度後,上述三項是否會受到影響?請分別加以說明。(9分)

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台灣今年的經濟情況略較前兩年爲佳,請問:這是經濟成長的 表現,還是在景氣循環中從谷底復甦的現象?請加以討論。(15 分)

(三)

請討論利率、貨幣、儲蓄之間的關係。(20分)