考試科目財政理論所別財政 考試時間 写月以下午第1 節

- 1. 何謂"constrained Pareto efficiency"試以一例子作說明。在 constrained Pareto efficiency下,政府有辦法增加資源配置(resource allocation)的效率嗎?(25 分)
- 2. 在 one consumer, two goods 和 labor 的架構下,建立數學模型,證明下列命題: 和休閒 more complementary 或 less substitute 的財貨,其 Ramsey tax rate 較高。(25分)
- 3. 何謂中位者投票定理(the median-voter theorem)?試舉例證明該定理。 此中位者投票定理和 Arrow 不可能定理之間有何關聯?(25 分)
- 4. 試說明公共財提供的最適條件。 滿足此一最適條件必須知曉什麼私有訊息(private information)?有辦法取得這 些私有訊息嗎?(25 分)

考試科目經濟理論所別史打政考試時間写月次日本第二節

91 年博士班總經入學試題

- 一、 請依序說明人力資本、研究發展、及公共投資如何影響長期經濟成長。(30%)
- 二、 請就以下問題,任擇一題作答:
 - 1 暫時性和臨時性減稅之經濟效果有何不同? (20%)
 - 2 事前宣告的與未事前宣告的政府支出增加,和股票價格有何關係? (20%)

考試科目 經濟學 所別 財政學系 考試時間 5月75日上午第二節

Microeconomics Part: Answer the following two questions carefully and as rigorously as you can. Each question carries 25 points.

- \equiv . A consumer has preference over the single good x and all other goods m represented by the utility function, u(x, m) = ln(x) + m. Let the price of x be p, the price of m be unity, and let income be y.
 - (a) Derive the Marshallian demand for x and m.
 - (b) Derive the indirect utility function v(p, y).
 - (c) Use the Slutsky equation to decompose the effect of an own-price change on the demand for *x* into an income and substitution effect. Interpret your result briefly.
 - (d) Suppose that the price of x rises from p^{θ} to p^{I} , $p^{I} > p^{\theta}$. Show that the consumer surplus area between p^{θ} and p^{I} gives an exact measure of the effect of the price change on consumer welfare.
 - (e) Show your findings in (d) with a set of diagrams: one giving the indifference curves and budget lines, and the other giving the corresponding Marshallian and Hicksian demands.
- \square A firm's technology possesses all the usual properties. It produces output using three inputs, with conditional factor demands $x_i(w_i, w_2, w_3, y)$, i = 1, 2, 3. Some of the following observations are consistent with cost minimization and some are not. If the observation is inconsistent, explain why. If it is consistent, give an example of a production that would produce such behaviour.
 - (a) $\partial x_1/\partial w_2 > 0$ and $\partial x_3/\partial w_1 > 0$.
 - (b) $\partial x_2/\partial w_1 \ge \theta$ and $\partial x_3/\partial w_1 \le \theta$.
 - (c) $\partial x_i/\partial y \le 0$ for i = 1, 2, 3.
 - (d) $\partial x_l/\partial y = 0$.
 - (e) $\partial (x_1,x_2)/\partial w_3 = 0$.