

考試科目	經濟學(宏觀)	所別	財政	考試時間	4月20日上午 星期日	第一節
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國立政治大學圖書館

一、簡答題 (50points)

- (5 points) Explain how assuming that people have finite lifetimes and do not care about their children breaks Ricardian equivalence.
- (5 points) Take the Solow growth model and assume the economy is at the steady state ("stable equilibrium"). A natural disaster hits and some of the economy's capital is destroyed. Determine graphically the impact on the long-run quantity of capital per capita and output per capita.
- (5 points) Suppose the marginal product of labor is $MPN = 200 - 0.5N$, where N is aggregate employment. The aggregate quantity of labor supplied is $300 + 8w$, where w is the real wage. If a supply shock increases the marginal product of labor by 10 (to $MPN = 210 - 0.5N$), by how much does employment increase?
- (5 points) How many people are unemployed if the employment ratio is 75%, there are 90 million people employed, and there are 20 million people not in the labor force?
- (5 points) Explain how the effectiveness of a monetary expansion depends on the degree of capital mobility if the central bank sterilizes reserve flows.
- (15 points) Consider the following misperceptions model of the economy:

$$AD: Y = 600 + 10(M/P)$$

$$SRAS: Y = \bar{Y} + P - P^e$$

$$\text{Okun's Law: } (Y - \bar{Y})/\bar{Y} = -2.5(u - \bar{u})$$

Let $\bar{Y} = 750$, $\bar{u} = 0.05$, $M = 600$, and $P^e = 40$.

備考 試題隨卷繳交

命題委員:

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(簽章) 92年4月6日

考試科目	經濟學(含國際)	所別	財政	考試時間	4月20日上午第一節 星期日 ①
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- a. What is the price level?
- b. Suppose there is an unanticipated increase in the nominal money supply to 800. What is the short-run equilibrium level of output, the unemployment rate, and the price level?
- c. When price expectations adjust fully, what is the price level?

7. (10 points) How well do you know about the economy of Taiwan?

- (a) 消費者物價年增率 (請將提供的數據填入下列表格其所對應的年份, 全對才給分, -0.01%, -0.2%, 1.3%)

2000年	2001年	2002年

- (b) 女性勞動參與率 (請將提供的數據填入下列表格其所對應的年份, 全對才給分, 46.6%, 46.1%, 46.0%)

2000年	2001年	2002年

- (c) (0.88, 0.12)、(0.78, 0.22)、及 (1.27, -0.27) 三組資料中, 何組資料代表我國 2001 年家庭的 (邊際消費傾向, 邊際儲蓄傾向)? ()。

- (d) (US\$12572, US\$20877, US\$24014) 三個數據中, 何者代表我國 2002 年平均每人的 GDP? _____。

- (e) (5.8%, 5.17%, 4.4%) 三個數據中, 何者代表我國 2002 年的失業率? _____。

備 考 試 題 隨 卷 繳 交

命 題 委 員:

- 73 -

(簽章) 92年4月6日

考試科目	經濟學	所別	財政學系碩士班	考試時間	4月20日 上午第一節 星期日 (下)
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國立政治大學圖書館

二、(50 points)

1. A firm producing output Y with the following production function, $Y = K^\alpha L^\beta$, where $\alpha, \beta > 0$, K, L are the only two inputs. Assuming the market price for K, L is r, w , respectively, and the firm is a competitive firm in the factor market:

- Derive a short run cost function and the long run cost function for this firm.
- If this is a competitive firm also in the output market, derive and explain the profit maximization conditions given the market price of Y is $p, p > 0$.
- If this is a monopolist in the output market, derive and explain the profit maximization conditions.

(30 points)

2. For the following four types of consumers all having M money income and facing $P_i, i=1, 2, \dots, n$, commodity price for good i , first derive the individual demand function for each good, then explain the effect of an increase in P_i on the demand for good $j, j=1, 2, \dots, n$.

(20 points)

(a) $U = \sum_{i=1}^n \alpha_i \log X_i, \quad \alpha_i > 0, i=1, 2, \dots, n$

(b) $U = \sum_{i=1}^n X_i$

(c) $U = \sum_{i=1}^n X_i^2$

(d) $U = \min\left(\frac{X_1}{a_1}, \frac{X_2}{a_2}, \dots, \frac{X_n}{a_n}\right), \quad a_i > 0, i=1, 2, \dots, n$

備 考 試 題 隨 卷 繳 交

命 題 委 員:

- 14 -

92/04/07

(簽章)

年

月

日