

國立中央大學99學年度碩士班考試入學試題卷

所別：經濟學系碩士班 不分組(一般生) 科目：總體經濟學 共 2 頁 第 1 頁

本科考試禁用計算器

*請在試卷答案卷(卡)內作答

一、是非題：每題 6 分，共 48 分。請先回答是或非，再寫理由；不寫理由，以零分計。理由充分與否決定得分高低。

- 1) In 2009, General Motors builds \$500 million worth of cars, but consumers only buy \$470 million of them. Thus, 2009 GDP rises by 470 million.
- 2) Council for Economic Planning and Development (經建會) proposed a four-year project to promote employment between 2009 and 2012. This project will ameliorate (改善) the long-term unemployment problem that results from the changes in the occupational structure of Taiwan.
- 3) An expansionary fiscal policy raises output. However, it hurts balance of (international) payments.
- 4) According to the Taylor rule, the central bank should conduct contractionary monetary policy when actual inflation rate is higher than target inflation rate.
- 5) In the classical model, fiscal policy actions do not influence aggregate demand, but in the Keynesian theory, they do.
- 6) The short-run aggregate supply curve is more likely to be horizontal while the long-run aggregate supply curve is more likely to be vertical. (Consider this argument as an agreement among both Keynesian and Classical economists.)
- 7) If the quantity of money demanded exceeds the quantity of money supplied, then the quantity of nonmonetary assets demanded exceeds the quantity supplied.
- 8) Consider the following Keynesian model, where Y is income, C is consumption, Y_d is disposable income, I is investment, G is government spending, T is net tax, NX is net export. Then the equilibrium income level is 450 and the autonomous spending multiplier is 0.4. True or false.

$$C = 90 + 0.8Y_d$$

$$I = 30$$

$$G = 40$$

$$T = 80 + 0.2Y$$

$$NX = 60 - 0.05Y_d$$

二、申論及計算題：共 52 分

1. Economic Growth Model

- a) (3 分) What is Solow growth model? What are the basic assumptions?
- b) (4 分) Use the Solow growth model to explain why we observe per capita output increases overtime.
- c) (4 分) What are the major differences between endogenous growth models and the Solow growth model?

參考用

注意：背面有試題

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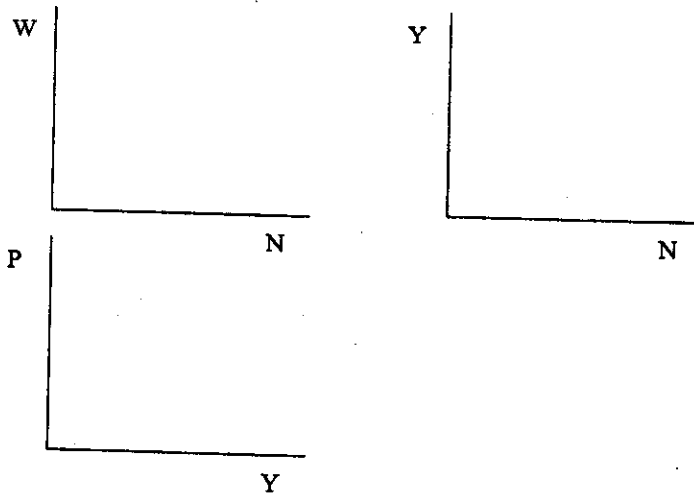
2. Rational Expectation Model:

Aggregate demand function: $P_t = -\alpha(Y_t - Y_{t-1}) + M_t$

Aggregate supply function: $Y_t = Y_{t-1} + \beta(P_t - P_t^e) + \varepsilon_t; \varepsilon_t \sim N(0, \sigma_\varepsilon^2)$

Money supply function: $M_t = M + \gamma M_{t-1} + \mu_t; \mu_t \sim N(0, \sigma_\mu^2)$

- a) (10 分) Solve for P_t and Y_t .
- b) (5 分) Illustrate and explain the "Policy Ineffectiveness Theorem."
3. Assume that the short-run production function is $Y=12 N^{2/3}$. The nominal wage rate is determined by the union as $W=6$. Assume that the price level is fixed at $P=3$ in the short-run. Answer the following questions.
- a) (5 分) Derive the quantity of labor demand.
- b) (8 分) Suppose a serious earthquake had hit the economy and the short-run production had changed to $Y=9 N^{2/3}$. Please base on a nominal rigidity Keynesian theory and use the following graphs to explain the effect of such event on (1) marginal product of labor; (2) employment; (3) production; and (4) aggregate supply curve.



4. Consider an economy in which the desired investment is very interest-inelastic, the demand for money is very interest-elastic, and the autonomous spending multiplier is known to be relatively small.
- a) (4 分) Is the IS curve flat or steep? Is the LM curve flat or steep?
- b) (9 分) Now suppose the central bank increases the nominal money supply. Graphically illustrate and explain in detail what effect this event will have on the IS-LM and AD-AS curves, on the interest rate, on the real output, and on the aggregate price. (Assume that the AS curve slopes upward.) Does the effect on real output tend to be large or small?

參考用

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