

國立中央大學104學年度碩士班考試入學試題

所別：經濟學系碩士班 不分組(一般生) 科目：總體經濟學 共 3 頁 第 1 頁

本科考試禁用計算器

\*請在答案卷(卡)內作答

請依題號寫下答案

- 一、申論題：共 60 分，每題 6 分，沒寫理由均以零分計。(Your grade depends on the quality of your answer. Use graphs and equations if necessary.)
1. A central bank has an interest-rate target. What's the central bank's open market operation when there is a sudden increase in money demand? Will the money supply increase, decrease, or remain unchanged?
  2. In the classical model, if other factors were unchanged, what would happen to the exchange rate of NT dollars to US dollars when the price level in Taiwan increases?
  3. Explain what "monetary neutrality" is. Suppose there is a sudden increase in money supply that is NOT fully anticipated by the private sector. According to the Keynesian model, will monetary neutrality hold? Why.
  4. What is "liquidity trap"? Consider two money demand functions: (A)  $M^d = 10 - 2000 R$ ; and (B)  $M^d = 10 - 0.002 R$ . Under which demand function is liquidity trap more likely to happen?
  5. Suppose there is a downward trend in the yield curve for bond rates. According to the efficient market theory for bond market, do the individuals expect future interest rate to rise or to fall? Explain.
  6. How does a tax on capital income affect aggregate saving and growth? How does a tax on labor income affect aggregate saving and growth?
  7. Chinese households have been enjoying very fast growth in their income — a trend that is expected to continue for a while. According to consumption smoothing, would you expect China to run current-account deficits, or current-account surpluses?
  8. Does monetary policy have a greater impact on an economy under fixed exchange rates or flexible exchange rates? Explain. (Note that although graph may be helpful, it is not necessary.)
  9. Suppose that after presidential elections, we have a drastic change in policy, and that the new president decides to tax checks written on bank deposits. How should this change affect the money supply? The money multiplier? Explain.
  10. Neoclassical theory predicts that, all else equal, an increase in spending by the government will increase the trade deficit. Explain.

參考用

注意：背面有試題

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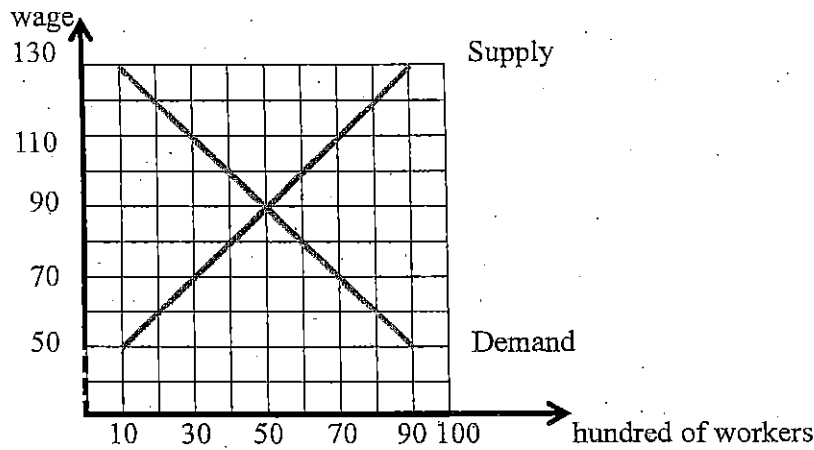
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二、計算及做圖題：共 40 分。無推導或計算過程，以零分計。

11. In the labor market shown below, suppose the minimum wage is set at NT\$110.



參考用

- (a) (2 分) What is the amount of unemployment?
- (b) (5 分) Duplicate the original graph on your answer sheet; illustrate the effect of recent influx of foreign workers which suddenly moves unemployment to 5,000 workers (50 hundred workers, in terms of the x-axis). At the same time, the number of workers employed has fallen and the government continues to set the minimum wage at NT\$110 per hour. (Hint: SHIFT ONE CURVE ON THE DIAGRAM to illustrate this change.)
- (c) (5 分) Instead of the influx of foreign workers, illustrate the effect of inadequate education which makes workers less productive and therefore less desirable (Please draw a new graph for this question). As in part (b), suppose unemployment suddenly moves to 5,000 workers. At the same time, the number of workers employed has fallen and workers continue to make the minimum wage of NT\$110 per hour. (Hint: SHIFT ONE CURVE ON THE DIAGRAM to illustrate this change.)
- (d) (8 分) Suppose the minimum wage were abolished shortly after the event described in part (c). In a new graph, illustrate and explain the impacts of the abolition of the minimum wage on EMPLOYMENT (fall, rise), UNEMPLOYMENT (fall, rise), the NUMBER IN THE LABOR FORCE (fall, rise), and WAGES (fall, rise).

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12. Consider the following Solow growth model where  $K$  is capital,  $I$  is investment,  $S$  is savings,  $N$  is the number of population (or labor), and  $Y$  is output. All variables are in real terms. Suppose that the capital depreciation rate is  $\delta = 0.2$ , saving rate is 0.4, and the population size is fixed (i.e. no population growth).

$$K_{t+1} = (1 - \delta) K_t + I_t \quad (\text{capital accumulation where } \delta = 0.2)$$

$$I_t = S_t = 0.4 Y_t \quad (\text{investment} = \text{saving})$$

$$Y = 18 K^{1/3} N^{2/3} \quad (\text{production function})$$

- (a) (8分) Compute the per-capita capital and per capita output in steady-state.
- (b) (4分) Compute the speed of change (rate of change) in per capita capital when the per capita capital is 27.

13. The central bank decides to reduce money supply.

- (a) (2分) What is the impact of such policy action on output and interest rate in equilibrium?
- (b) (6分) Consider two countries A and B. The demand for investment ( $I$ ) as a function of interest rate ( $R$ ) in these countries are

$$\text{Country A: } I = 0.2 - 0.5 R$$

$$\text{Country B: } I = 0.2 - 0.8 R$$

Which country has larger interest elasticity of investment? This monetary policy is implemented in both countries. In which country would the effect on output bigger? Use the IS-LM framework to explain.