

國立中央大學101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 頁 第 / 頁

本科考試禁用計算器

*請在試卷答案卷(卡)內作答

請依題號寫下答案

一、是非題：每題 6 分。請先回答是或非，再寫理由；**沒寫理由或沒繪圖均以零分計。**

1. In the Solow model, an increase in the saving rate has a level effect, but no growth effect.
2. Suppose that there are only two large countries, home and foreign. Other things equal, the amount of the national saving of the foreign country increases with the saving rate of the home country.
3. The larger the crowding-out effect is, the steeper the aggregate demand curve is.
4. Other things equal, a current tax cut results in larger current consumption.
5. Under the assumption of "no money illusion", the aggregate supply curve is negatively sloped.
6. Consider an economy that adopts flexible exchange rates and that capital is highly mobile between countries. A drop in domestic government spending will cause the balance of payments to have surplus and exchange rate to depreciate.
7. According to the basic Keynesian one-period fixed-nominal-wage contract model, an unexpected drop in aggregate demand will have no impact on the real wage.
8. Consider an economy in which the desired investment is highly interest-elastic, the demand for money is very interest-inelastic, and the autonomous spending multiplier is relatively large. Suppose now the central bank increases the nominal money supply. The impact on real output and price will be large while the impact on the interest rate is small.

注意：背面有試題

二、問答題與計算題：

9. Suppose that the economy is in the long-run equilibrium initially (call it point A). For some reason, workers raise their expected inflation rate. (Please use same IS-LM and AD-AS diagrams to answer all the following questions.)
- (8分) Show the short-run equilibrium (call it point B) on the AD-AS diagram and on the Phillips curve. How do the real interest rate and the general price level at point B compare to the real interest rate and the general price level at point A?
 - (6分) If the government adopts fiscal policies to restore the output level at point A and we call this new long-run equilibrium point C, how do the real interest rate and the general price level at point C compare to the real interest rate and the general price level at point A?
 - (6分) Start from point B. If the government adopts monetary policies to restore the general price level at point A and we call this new short-run equilibrium point D, how do the real interest rate and the general price level at point D compare to the real interest rate and the general price level at point B?
 - (6分) How would the economy move from point D to a new long-run equilibrium (call it point E)? How do the real interest rate and the general price level at point E compare to the real interest rate and the general price level at point A?
10. Suppose that the production function is $Y = 5 K^{0.5} N^{0.5}$. Suppose the current capital stock is $K = 16$ and therefore the short-run production function is $Y = 20 N^{0.5}$.
- (6分) Suppose the nominal wage is \$5, and the price of output is \$2. How many units of labor will be demanded?
 - (6分) Now suppose the production has changed to $Y = 3K^{0.5} N^{0.5}$ and capital expands to $K=25$ while nominal wage and price of output remain unchanged. How would such change affect the production function, the marginal product of labor (MPN) and the demand for labor? Use a diagram to explain.

注意：背面有試題

11. Consider an economy with constant population. Suppose that the capital depreciation rate $\delta = 0.1$ and saving rate is 0.2.

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

$$I_t = S_t = 0.2 Y_t \quad (\text{investment = savings})$$

$$Y = 0.3 \sqrt{K} \sqrt{N} \quad (\text{production function})$$

where K is capital, N is population, I is investment, S is saving, and Y is total output.

- a. (8分) What are the steady-state values of the capital-labor ratio, output per worker, and consumption per worker
- b. (6分) What would be the effect of an increase in the saving rate on long-run living standards? Explain.