國立嘉義大學九十七學年度
應用經濟學系碩士班招生考試試題

科目：總體經濟學

一、 單選題：40分，每題4分

1. In comparing two countries with different levels of education but the same saving rate, rate of population growth, and rate of technological progress, one would expect the more highly educated country to have:
   A) a higher growth rate of total income and a higher real wage.
   B) a higher growth rate of total income and the same real wage.
   C) the same growth rate of total income and a higher real wage.
   D) the same growth rate of total income and the same real wage.

2. In a small open economy with a floating exchange rate, if the government decreases the money supply, then in the new short-run equilibrium:
   A)income falls and the exchange rate rises.
   B) the exchange rate falls and income rises.
   C) income remains unchanged but the exchange rate rises.
   D) the exchange rate remains unchanged but income falls.

3. In a short-run model of a large open economy with a floating exchange rate, a monetary expansion causes a decrease in the interest rate and:
   A) the exchange rate but has no effect on income.
   B) the exchange rate, and increases in income, net capital outflow, and net exports.
   C) the exchange rate and net capital outflow, and increases in income and net exports.
   D) net exports and net capital outflow, but increases in investment and income.

4. An increase in the real interest rate leading to an increase in consumption in all periods because of a movement to a higher indifference curve is an example of:
   A) the substitution effect .
   B) the income effect.
   C) the life-cycle hypothesis.
   D) the permanent-income hypothesis.

5. If Microsoft is earning a profit, then this raises the _____ value of installed capital and implies a _____ value of Tobin's q.
   A) market; low   B) market; high   C) replacement; low   D) replacement; high

6. Holding other factors constant, the decline in aggregate income during a recession in Taiwan will _____ the price of housing and _____ the flow of residential housing investment.
   A) increase; increase   B) increase; decrease   C) decrease; increase   D) decrease; decrease

7. Suppose this year is an election year in Taiwan and the economy is in a recession. The opposition candidate proposes an investment tax credit to take effect next year after he takes office. If the public believes the opposition candidate has a good chance of winning, the effect of this promise will likely be to:
   A) increase investment both this year and next year.
   B) decrease investment both this year and next year.
   C) increase investment this year and decrease it next year.
   D) decrease investment this year and increase it next year.

8. When the Central Bank decreases reserve requirements, if the ratio of currency to deposits decreases also while the monetary base is constant, then:
   A) it cannot be determined whether the money supply increases or decreases.
   B) the money supply increases.
   C) the money supply decreases.
   D) the two changes exactly offset each other.

9. According to portfolio theories of money demand, increases in the expected return on stock _____ the demand for money, and increases in the expected return on bonds _____ the demand for money.
   A) increase; increase   C) decrease; increase
   B) increase; decrease   D) decrease; decrease

10. If you spend $3,000 per year in cash, each trip to the bank costs you $5 in lost time, and the yearly interest rate on your bank account, expressed as a fraction, is 0.03, how many times a year does the Baumol–Tobin model suggest you should go to the bank?
    A) one   B) two   C) three   D) four

二、填充題：26 分（每格 2 分）

1. Assume that a country's production function is $Y = AK^{0.3}L^{0.7}$. The ratio of capital to output is 3, the growth rate of output is 3 percent, and the depreciation rate is 4 percent. Capital is paid its marginal product.
   (A) The marginal product of capital in this situation is _____.
   (B) If the economy is in a steady state, the saving rate must be _____.
   (C) If the economy decides to achieve the Golden Rule level of capital and actually reaches it, the marginal product of capital will be _____.
   (D) In order to achieve the Golden Rule level of capital, the saving rate must be _____.

2. Assume that a large open economy with a floating exchange rate is described in the short run by the equations:

$$C = 0.5(Y - T)$$
$$T = 1{,}000$$
$$I = 1{,}500 - 250r$$
$$G = 1{,}500$$
$$NX = 1{,}000 - 250e$$
$$C + I + G + NX = Y$$
$$M/P = 0.5Y - 500r$$
$$M = 1{,}000$$
$$CF = 500 - 250r$$
$$NX = CF$$

The last two equations specify that CF, net capital outflow, decreases with r, the interest rate, and that NX, the net exports, is equal to net capital outflow. NX is also related to the exchange rate, e, and falls when e appreciates. The price level (P) is fixed at 1.0.

Calculate short-run equilibrium values: Y, r, C, I, CF, NX, e, private saving, public saving.

Y =_____; r =_____; C =_____; I =_____; CF =_____; NX =_____; e =_____; private saving =_____; public saving =_____.

三、簡答題：34 分

1. Income per person exceeds $25,000 in many countries, but is below $1,000 per person in many other countries. Based on the Solow growth model, suggest at least four possible explanations for this gap in living standards. (20分)

2. Suppose the government in Taiwan places restrictions on agricultural exports in order to increase the domestic food supply and lower food prices. Use the Mundell-Fleming model to analyze the short-run effects of this policy on the exchange rate and real GDP if the country has a: (Taiwan is a small open economy.) (14分)

   (A) floating exchange rate

   (B) fixed exchange rate