

國立中央大學100學年度碩士班考試入學試題卷

所別：財務金融學系碩士班 甲組(一般生) 科目：經濟分析 共 2 頁 第 1 頁
財務金融學系碩士班 乙組(一般生)

本科考試禁用計算器

*請在試卷答案卷(卡)內作答

問答題(請依題序作答,未列算式、推理過程或適當說明者,不予計分)

1. The Everest Company is the only employer in its area. Everest can hire any number of domestic workers or foreign workers it wishes. The supply curve for domestic workers is given by $L_d = 9w_d^2$, and for foreign workers by $L_f = 100w_f$, where w_d and w_f are, respectively, the hourly wage rate paid to domestic and foreign workers. Assume that Everest sell its product in a perfectly competitive market at \$5 per unit and that each worker hired (both domestic and foreign) can produce 2 units per hour.
 - a. Derive the marginal expense of hiring one more domestic worker (ME_d) and the marginal expense of hiring one more foreign worker (ME_f). (8%)
 - b. If the firm wishes to maximize profits, how many domestic and foreign workers should be hired and what will the wage rates for these two groups be? How much will Everest earn in profits per hour? (6%)
 - c. If Everest was constrained to pay all workers the same wage based on the value of their marginal products, how many domestic and foreign workers should be hired and what will the wage rate? How much will Everest earn in profits? (6%)
2. Consider a competitive market of an exhaustible resource - kryptonite. The market demand is given by $Q = 1000 - 100P$. The marginal cost of production is constant at \$5 per ounce. It is expected by the market that kryptonite will sell for \$10 per ounce in 10 years. Also assume that the real interest rate is 5% (i.e. the present discounted value of \$1 received in 10 years is 0.614). What is the current market price and output? (6%)
3. Ms. Smith's utility function is given by $U(W) = \sqrt{W}$ where W is her wealth. Suppose that Ms. Smith has \$2500 in wealth and there is a 25% chance that she will lose \$900.
 - a. What is her expected utility? (4%)
 - b. Suppose that Ms. Smith can buy insurance against losing the \$900. What is the actuarially fair premium? (4%)
 - c. What is the maximum amount that she is willing to pay to insure her \$900? (4%)
4. Consider the situation where a monopoly sells in one market but makes the output in two plants. The market demand is given by $P = 70 - 0.25Q$. The marginal cost for plant 1 is $MC_1 = 3Q_1$ and the marginal cost for plant 2 is $MC_2 = Q_2$.
 - a. What is the profit-maximizing output and price? (6%)
 - b. How much of the total output should come from each of the plants? (6%)

參考用

注意：背面有試題

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5. Changes in economic policies will frequently have an impact on the unemployment rate. Explain whether each of the policy changes described is likely to: (i) affect frictional or structural unemployment; and (ii) increase or decrease the measured unemployment rate.
- The government raises the minimum wage. (5%)
 - The government increases spending on job-training programs. (5%)
6. a. Graphically illustrate the impact of an open-market purchase by the Federal Reserve on the equilibrium interest rate using the theory of liquidity preference and the market for real money balances. Be sure to label: (i) the axes; (ii) the curves; (iii) the initial equilibrium values; (iv) the direction the curve shifts; and (v) the terminal equilibrium values. (5%)
- b. Explain in words what happens to the equilibrium interest rate as a result of the open-market purchase. (5%)
- c. As an economy moves into a recession, income falls. Illustrate graphically the impact of a decrease in income on the equilibrium interest rate using the theory of liquidity preference and the market for real money balances. Be sure to label: (i) the axes; (ii) the curves; (iii) the initial equilibrium values; (iv) the direction the curve shifts; and (v) the terminal equilibrium values. (5%)
- d. Explain in words what happens to the equilibrium interest rate as a result of the fall in income. (5%)
7. What is the impact on current consumption of a temporary tax cut according to:
- the Keynesian consumption function? (5%)
 - the permanent-income hypothesis? (5%)
8. Use the Baumol-Tobin model to explain how each of the following events would change the demand for money:
- The rate of inflation increases and is expected to continue to increase. (5%)
 - Most households begin to practice a "don't buy anything new" approach to shopping. (5%)

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