

國立高雄大學九十七學年度研究所碩士班招生考試試題

科目：經濟學  
考試時間：100 分鐘

系所：  
金融管理學系碩士班  
本科原始成績：100 分

是否使用計算機：否

1. Explain the difference between Gross Domestic Product (GDP) and National Income (10 points)
2. Show graphically and explain the effect of an increase in net exports on the open-economy IS curve. (10 points)
3. Define nominal exchange rate and real exchange rate. Explain the relative advantages and disadvantages of flexible exchange rates and fixed exchange rates? (15 points)
4. Describe and list the macroeconomic determinants affecting money demand. (15 points)
5. Suppose that there are two goods in the market. Please apply the income elasticity to prove if one good is an inferior good, the other good must be a luxury good. (10 points)
6. In the Cournot model of Duopoly, let  $q_1$  and  $q_2$  denote quantities produced by firms 1 and 2.  $P(Q) = a - Q$  is the market-clearing price and the aggregate quantity in the market is  $Q = q_1 + q_2$ . The total cost to firm  $i$  of producing quantity  $q_i$  is  $C_i(q_i) = cq_i$ . (15 points)
  - (a) Each firm would like to be a monopolist in the market. Please find the monopoly quantity of the firm 1.
  - (b) By firms 1 and 2 reaction functions, why is the monopoly quantity of the firm 1 unstable in the Cournot model?
7. June has two children named Mary and John and she loves her children equally. June has a total of \$1,000 to give them. (15 points)
  - (a) Suppose that June utility function is  $U(X, Y) = \log X + \log Y$ , where  $X$  is the amount of the money June gives to Mary and  $Y$  is the amount of the money June gives to John. How will June choose to divide the money?
  - (b) Suppose that June utility function is  $U(X, Y) = \max \{X, Y\}$ . How will June choose to divide the money?
  - (c) Suppose that June utility function is  $U(X, Y) = X^2 + Y^2$ . How will June choose to divide the money?
8. A firm has two variable inputs and a production function  $f(x_1, x_2) = \sqrt{2x_1 + 4x_2}$ . Suppose that the price of the output is 4, the price of input 1 is 2, and the price of input 2 is 3. What are the profit-maximizing amount of factor 1, the profit-maximizing amount of factor 2, and the profit-maximizing output? (10 points)