

國立臺灣大學農業經濟研究所 103 學年度碩士班甄試

個體經濟學 卷 1

102/10/18

卷 1 共 4 題，總分 50 分。考試時間為 AM8:30~11:30。試題請隨答案本繳回。  
本試卷分為第 1 卷與第 2 卷，請將兩份試卷的答案分別填寫於兩本考試試卷內。

1. (15%)某廠商之生產函數為 $f(x_1, x_2) = Ax_1^a x_2^b$  而其生產的規模報酬種類(固定規模報酬、規模報酬遞增、規模報酬遞減)由  $a+b$  而定。請討論  $a+b$  之值與其對應之規模報酬種類。
2. (15%)有一追求利潤極大廠商，在短期生產之投入要素為 $x_1$ ，固定要素為 $x_2$ ，若 $x_2$ 之價格下降，將使 $x_1$ 之用量將如何變化?對利潤有何影響?
3. (10%)假設某廠商使用兩種投入要素進行生產，而此兩要素為完全替代；若兩要素之價格均相同，則此二要素之需求有何關係?
4. (10%)有一成本函數可表為 $c(y) = 10y^2 + 1000$ ，試求出供給曲線。

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個體經濟學 卷 2

102/10/18

卷 2 共 5 題，總分 50 分。考試時間為 AM8:30~11:30。試題請隨答案本繳回。  
本試卷分為第 1 卷與第 2 卷，請將兩份試卷的答案分別填寫於兩本考試試卷內。

1. Will a monopoly ever provide a Pareto efficient level of output on its own? Please explain it. (10 points)
2. We saw that a monopolist never produced where the demand for output was inelastic. Will a monopsonist produce where a factor is inelastically supplied? Please explain it. (10 points)
3. There are three Cournot competitors in a market. Each has constant marginal cost,  $MC=10$ .  
Demand in the market is
$$Q=300-2P$$
  - a. In the Cournot equilibrium, how much does each firm produce? (3 points)
  - b. In the Cournot equilibrium, how much total output is produced by the firms? (2 points)
  - c. In the Cournot equilibrium, what is the market price? (2 points)
  - d. How much consumer surplus is there in equilibrium? (3 points)
4. Subjects are allowed to buy tickets in a lottery. One group is told that they have a 55 percent chance of winning, the other group is told that they have a 45 percent chance of not winning.
  - a. Which group is more likely to buy lottery tickets? Please explain it. (7 points)
  - b. What is the name for this effect? (3 points)
5. Consider a competitive industry with two firms, one with cost function  $c_1(y) = y^2$ , and other with cost function  $c_2(y) = 2y^2$ .
  - a. What are the supply functions of firm 1 and firm2? (6 points)
  - b. What is the industry supply function? (4 points)