

淡江大學九十四學年度碩士班招生考試試題

系別：產業經濟學系

科目：個體經濟學

准帶項目請打「V」	
<input type="checkbox"/>	簡單型計算機

本試題共 3 頁

本試題雙面印製

第 1 頁，共 3 頁

第一部分：選擇題，每題五分

- Sir Plus has a demand function for mead that is given by the equation $D(p)=100-p$. If the price of mead is 95, how much is Sir Plus's net consumer surplus?
 - 12.50.
 - 51.
 - 25.
 - 6.25.
 - 9,500.
- A profit-maximizing monopoly faces an inverse demand function described by the equation $p(y)=70-y$ and its total costs are $c(y)=8y$, where prices and costs are measured in dollars. In the past it was not taxed, but now it must pay a tax of 2 dollars per unit of output. After the tax, the monopoly will
 - increase its price by 2.
 - increase its price by 3.
 - increase its price by 1.
 - leave its price constant.
 - None of the other options are correct.

第二部分：填充題，每題五分

- Suppose that Miss Muffett insists on consuming 2 units of whey per unit of curds. If the price of curds is 5 and the price of whey is 5, then if Miss Muffett's income is m , her demand for curds will be _____.
- Elmer's utility function is $U(x,y)=\min(x,2y)$. If the price of x is 25, the price of y is 10, and Elmer chooses to consume 8 units of y , what must Elmer's income be _____?
- If we graph Mary Granola's indifference curves with avocados on the horizontal axis and grapefruits on the vertical axis, then whenever she has more grapefruits than avocados, the slope of her indifference curve is -2. Whenever she has more avocados than grapefruits, the slope is -1/2. Mary would be indifferent between a bundle with 24 avocados and 30 grapefruits and another bundle that has 34 avocados and _____ grapefruits.
- The demand function for drangles is given by $D(p)=(p+1)^{-2}$. If the price of drangles is 5, then the price elasticity of demand is _____.

淡江大學九十四學年度碩士班招生考試試題 ¹²⁰⁻²

系別：產業經濟學系

科目：個體經濟學

准帶項目請打「V」

簡單型計算機

本試題共 3 頁

第 2 頁，共 3 頁

5. The demand for football tickets at each game is $60,000 - 4,000p$. If the capacity of the stadium at that university is 20,000 seats, what is the revenue maximizing price for this university to charge per ticket _____?
6. The production function is given by $F(L) = 6L^{2/3}$. Suppose that the cost per unit of labor is 8 and the price of output is 6, how many units of labor will the firm hire _____?
7. Suppose that Nadine has a production function $5x_1 + x_2$. If the factor prices are 10 for factor 1 and 5 for factor 2, how much will it cost her to produce 20 units of output _____?
8. Suppose that Irma's production function is $f(X_1, X_2) = (\min[X_1, 2X_2])^{1/2}$. If the price of factor 1 is $W_1 = 4$ and the price of factor 2 is $W_2 = 4$, then her supply function is _____.
9. The supply curve of any firm is $S_i(p) = p/2$. If a firm produces 4 units of output, what are its total variable costs _____?
10. Suppose that the market demand curve for bean sprouts is given by $P = 640 - 2Q$, where P is the price and Q is total industry output. Suppose that the industry has two firms, a Stackleberg leader, and a follower. Each firm has a constant marginal cost of \$40 per unit of output. In equilibrium, total output by the two firms will be _____.

第三部份：簡答題，每題十分

1. Jake loves to play soccer and hates card games. He has strictly convex preferences and does nothing but play soccer and card games with his friends. He always is happier the more soccer he plays. The more time he spends on card games, the less happy he is. Please draw the indifference curves for Jake. In your diagram, label the horizontal axis "soccer" and the vertical axis "card games". Also indicate the direction in which utility is increasing.
2. True/False/Uncertain. Explain. "Average cost can never rise while marginal costs are declining"
3. True/False/Uncertain. Explain. "A situation where everyone is playing a dominant strategy must be a Nash Equilibrium"

淡江大學九十四學年度碩士班招生考試試題¹²⁰⁻³

系別：產業經濟學系

科目：個體經濟學

准帶項目請打「V」

簡單型計算機

本試題共 3 頁

第 3 頁，共 3 頁

4. Consider the following 2-firm simultaneously price competition game (Bertrand Competition). The market demand curve is $Q = 12 - P$. Both firms has the same marginal cost, $MC = 6$.
- Is $(P_1 = 8, P_2 = 7)$ a Nash Equilibrium? Explain.
 - Is $(P_1 = 8, P_2 = 6)$ a Nash Equilibrium? Explain.
 - Is $(P_1 = 4, P_2 = 5)$ a Nash Equilibrium? Explain.
 - Is $(P_1 = 4, P_2 = 6)$ a Nash Equilibrium? Explain.
 - Is $(P_1 = 6, P_2 = 6)$ a Nash Equilibrium? Explain.