

淡江大學九十二學年度碩士班招生考試試題

系別：財務金融學系

科目：個體經濟學

准帶項目請打「○」否則打「×」
○ 簡單型計算機

本試題共 1 頁

1. A consumer of two goods faces positive prices, $p_x = p_y$, and has a positive income, M . The utility function is $u(x, y) = \min(x, y) + \max(0.5x, 0.5y)$. Graph the indifference maps and derive the demand functions. (15%)
2. Let $u(W) = -(\beta - W)^\alpha$, What restrictions on α , β , and W are required to ensure that $u(W)$ is risk averse? Compute the measure of absolute risk aversion and interpret your result. (15%)

3. Over a three-period, an individual exhibits the following consumption behavior:

t	p_1	p_2	p_3	x_1	x_2	x_3
1	1	1	2	5	19	9
2	1	1	1	12	12	12
3	1	2	1	27	11	1

Is this behavior consistent with the basic assumptions of completeness and transitivity? (10%)

4. Determine whether the following are legitimate ordinary demand functions (10%)

a) $x = -p_x + 2p_y + M$ $y = 2p_x - 2p_y + M$

b) $x = \frac{1}{4} \left(\frac{M + 2p_y}{p_x} \right)$ $y = \frac{3}{4} \left(\frac{M - p_x}{p_y} \right)$

5. A per unit tax, $t > 0$, is levied on the output of a monopoly. The monopolist faces demand, $q = p^{-k}$ where $k > 1$, and has constant average cost. Will the monopolist increase price by more than the amount of the per-unit tax? (10%)
6. Suppose that Marriott's production is characterized by constant returns to scale at all output levels. What will the firm's long run total, average, and marginal cost curves look like? (15%)
7. At the "All You Can Eat" brunch buffet offered by Paul's Restaurant, consumers pay a price of \$550 and then can consume all they want. Show a consumer's optimal consumption bundle with a budget line and indifference curve. Explain the shape of both curves. (10%)
8. Suppose the production possibility frontier for gun (X) and butter (Y) is given by $10X^2 + 25Y^2 = 2500$ and the preference can be presented by $u(X, Y) = XY + Y$, how much X and Y will be produced? What will happen, if the relative price p_Y/p_X is restricted to 2? (You need to graph results) (15%)