所別：產業經濟研究所碩士班 甲組 科目：經濟學原理

I. Multiple choice questions (4 point for each question, total is 40 points)

1. Economic profit is defined as the difference between revenue and _____.
   A. explicit cost
   B. total economic cost
   C. implicit cost
   D. shareholder wealth
   E. none of the above

2. Which of the following statements concerning the price elasticity of demand is (are) true?
   A. The greater the number of substitute goods, the more price elastic the demand for the product.
   B. The demand for durable goods tends to be more price elastic than the demand for nondurables.
   C. The demand for relatively low-priced goods tends to be more price elastic than the demand for expensive items.
   D. a and b only
   E. a, b, and c

3. In an open economy with few capital restrictions and substantial import-export trade, a rise in interest rates and a decline in the producer price index of inflation will
   A. raise the value of the currency
   B. lower the nominal interest rate
   C. increase the volume of trading in the foreign exchange market
   D. lower the trade-weighted exchange rate
   E. increase consumer inflation.

4. The law of diminishing marginal returns:
   A. states that each and every increase in the amount of the variable factor employed in the production process will yield diminishing marginal returns
   B. is a mathematical theorem that can be logically proved or disproved
   C. is the rate at which one input may be substituted for another input in the production process
   D. none of the above

5. The isoquants for inputs that are perfect substitutes for one another consist of a series of:
   A. right angles
   B. parallel lines
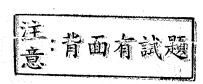   C. concentric circles
   D. right triangles
   E. none of the above

注意：背面有試題

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6. Given a Cobb-Douglas production function estimate of $Q = 1.19L^{.72}K^{.18}$ for a given industry, this industry would have:
   A. increasing returns to scale
   B. constant returns to scale
   C. decreasing returns to scale
   D. negative returns to scale
   E. none of the above

7. For a short-run cost function which of the following statements is (are) not true?
   A. The average fixed cost function is monotonically decreasing.
   B. The marginal cost function intersects the average fixed cost function where the average variable cost function is a minimum.
   C. The marginal cost function intersects the average variable cost function where the average variable cost function is a minimum.
   D. The marginal cost function intersects the average total cost function where the average total cost function is a minimum.
   E. b and c

8. Which of the following statements concerning the long-run average cost curve of economic theory is (are) not true?
   A. it is L-shaped
   B. it consists of the lower boundary of all the (infinitely many) short-run curves
   C. the long-run average cost of producing any given level of output, in general, occurs at the point where short-run average costs are minimized
   D. a and b
   E. a and c

9. At the long-run profit maximizing level of output under pure competition, equilibrium will be achieved at a point where price equals:
   A. marginal revenue
   B. marginal cost
   C. average cost
   D. a and b only
   E. a, b, and c

10. Charging lower rates to large users for successive blocks of output is an example of:
    A. first-degree price discrimination
    B. second-degree price discrimination
    C. third-degree price discrimination
    D. inverted block pricing
    E. none of the above

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II. Problem (60 points)

1. Characterize each of the following statement as **true** or **false**. Justify your response.
   (**No explanation, no points.** 7 points for each, total is 28 points.)
   (a) Effective oligopolistic collusion is more likely to occur when customer orders are large and received infrequently at irregular intervals as compared with small orders, frequent, and received on a regular basis.
   (b) The demand for many products tends to become more price elastic in the long run than in the short run.
   (c) A nature monopoly exists if average cost falls as output expands.
   (d) Linear isoquants describe production systems when inputs are perfect complements

2. Firm A manufactures a variety of toys selling for NT $100 each. Sales have averaged 10,000 units per month during the last year. Recently Firm A's closest competitor, Firm B, cuts its prices on similar toys from NT $115 to $85. Firm A noticed that its sales declined to 8,000 units per month after the price cut.

   (a) What is the arc cross elasticity of demand between Firm A's and Firm B's toys? (8 points)
   (b) If Firm A knows the arc price elasticity of demand for its toys is -2, what price would they have to charge in order to obtain the same level of sales as before Firm B's price cut? (8 points)

3. *B&B* is a typical firm in the perfectly competitive plastic shoe industry. If the marginal cost of output is described by the relation:

   $$MC = 250 + 0.05Q$$

   Where Q is pairs of shoes per year.
   (a) Derive the firm's supply curve, expressing quantity as a function of price. (6 points)
   (b) Calculate the industry supply per year at a market price of $300, given *B&B* is one of 400 competitors. (10 points)