

# 國立中央大學八十七學年度碩士班研究生入學試題卷

所別： 資訊管理研究所

甲組 科目：

經濟學

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經濟學第一部份：是非題（每題二分；共十分）

1. In order for a pure monopolist to earn a pure economic profit in short-run equilibrium, marginal revenue must be greater than average variable cost.
2. Other things being equal, tacit coordination of prices, output, and profits would be most likely in a rapidly growing industry.
3. A monopsonist's equilibrium wage will be less than the marginal revenue product of labor.
4. If demand for a good is price elastic, it must also be income elastic.
5. If  $X$  and  $Y$  are complementary goods, the demand curve for  $X$  will shift to the right when the price of  $Y$  goes up.

經濟學第二部份：選擇題（每題二分；共十分）

1. A technological breakthrough lowers the cost of manufacturing razor blades without any change in their quality. As part of the transition to a new equilibrium in the razor blade market, we would expect to find a (an):
  - (a) shortage of razor blades.
  - (b) rightward shift in the demand for razor blades.
  - (c) downward shift in the supply curve for razor blades.
  - (d) upward movement along the demand curve for razor blades.
2. If the equilibrium price set by the normal interaction of supply and demand is lower than the price ceiling set by the government, the result would be:
  - (a) a surplus.
  - (b) a shortage.
  - (c) quantity demanded equal to quantity supplied.
  - (d) rationing.

3. Indifference curves cross when:

- (a) the total utility of the two bundles is equal.
  - (b) the marginal rates of substitution for two indifference curves are equal.
  - (c) consumers are satiated by a particular good.
  - (d) none of the above.
4. If both the marginal cost and the average variable cost curves are U-shaped, at the point of minimum marginal cost the average variable cost must be:
- (a) at its minimum.
  - (b) remaining constant.
  - (c) increasing.
  - (d) decreasing.

5. A permanent increase in demand for the output of a monopolistically competitive industry will result in which of the following in the new long-run equilibrium?

- (a) A higher price, with no increase in output.
- (b) Fewer firms in the market.
- (c) Higher pure economic profit for each firm.
- (d) More firms in the market.

經濟學第三部份：計算題（每題十五分；共三十分）

1. An entrepreneur plans for a one-machine horizon. He purchases the machine for 500 dollars. Its scrap value at time  $T$  is  $S(T) = 500 - 40T$ . The rate of interest is 0.05. The machine yields a quasi-rent flow at the rate  $Z_t = 85 - 4t$  dollars per year. When should the entrepreneur retire this machine?
2. Consider a market characterized by monopolistic competition. There are 101 firms with identical demand and cost functions:

$$p_k = 150 - q_k - 0.02 \sum_{i=1, i \neq k}^{101} q_i$$

$$c_k = 0.5q_k^3 - 20q_k^2 + 270q_k, k = 1, \dots, 101$$

考場

注：背面有試題

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Determine the maximum profit and the corresponding price and quantity for a representative firm. Assume that the number of firms in the industry does not change.

經濟學第四部份：問答題（共五十分）

1. How does the level of aggregate output affect the rate of inflation? What relationship do you expect between the level of aggregate output and the rate of inflation? Does your expectation confirm the situations observed in the Asian Crisis? Why? (15%)
2. What are the economics challenges that confront us these days? Provide some insight to find some way out. (15%)
3. What is the paradox of thrift? Explain the reasons why it is called a paradox? (10%)
4. Explain the theory of rational expectations. (10%)

