

國立成功大學

110學年度碩士班招生考試試題

編 號： 255、258

系 所： 交通管理科學系
電信管理研究所

科 目： 經濟學

日 期： 0202

節 次： 第 1 節

備 註： 不可使用計算機

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第1頁，共6頁

※ 考生請注意：本試題不可使用計算機。請於答案卷(卡)作答，於本試題紙上作答者，不予計分。

一、選擇題 (75 分，每題 3 分)

01. In the long run a company that produces and sells popcorn incurs total costs of \$1,050 when output is 90 canisters and \$1,200 when output is 120 canisters. The popcorn company exhibits
- diseconomies of scale because total cost is rising as output rises.
 - diseconomies of scale because average total cost is rising as output rises.
 - economies of scale because total cost is rising as output rises.
 - economies of scale because average total cost is falling as output rises.
02. Which of the following is NOT a characteristic of a perfectly competitive industry?
- There are many firms.
 - There are no restrictions on entry into the market.
 - Each firm produces a slightly differentiated product.
 - Each firm takes price as given, determined by the equilibrium of industry supply and industry demand.
03. If the price elasticity of demand for Pepsi is 1.5, then an increase in the selling price will:
- increase the total revenue
 - decrease the total revenue
 - lead to no change in total revenue
 - first increase and then decrease total revenue
04. Which of the following statements is correct for a monopolist?
- The firm maximizes profits by equating marginal revenue with marginal cost.
 - The firm maximizes profits by equating price with marginal cost.
 - Demand equals marginal revenue.
 - Average revenue equals price.
- (i), (iii), and (iv) only
 - (i) and (iv) only
 - (i), (ii), and (iv) only
 - (iii) and (iv) only
05. As the quantity produced increase
- Average fixed cost decreases
 - Fixed cost increases
 - Variable cost decreases
 - None of the above
06. Beef is a normal good. You observe that both the equilibrium price and quantity of beef have fallen over time. Which of the following explanations would be most consistent with this observation?

- a. Consumers have experienced an increase in income, and beef-production technology has improved.
 - b. The price of chicken has risen, and the price of steak sauce has fallen.
 - c. New medical evidence has been released that indicates a negative correlation between a person's beef consumption and life expectancy.
 - d. The demand curve for beef must be positively sloped.
07. Other things the same, if the central bank decreases the rate at which it increases the money supply, then
- a. unemployment and inflation rise in the short run.
 - b. unemployment rises and inflation falls in the short run.
 - c. unemployment falls and inflation rises in the short run.
 - d. unemployment and inflation fall in the short run.
08. Which of the following is NOT true of firms in monopolistic competition?
- a. They practice product differentiation.
 - b. They have excess capacity in the long run.
 - c. They earn a normal profit in the long run.
 - d. They are price takers.
09. Which of the following statements is correct?
- a. If marginal cost is rising, then average total cost is rising.
 - b. If marginal cost is rising, then average variable cost is rising.
 - c. If average variable cost is rising, then marginal cost is minimized.
 - d. If average total cost is rising, then marginal cost is greater than average total cost.
10. For Product X, the income elasticity of demand is -2.45. Which of the following is therefore true?
- a. Product X is a necessity.
 - b. Product X is a normal good.
 - c. Product X is an inferior good.
 - d. Product X is a luxury.

Question 11-12 Refer to the Table

The table shows the demand schedule for a particular product.

| | | | | | | | | | |
|---------------------------|----|----|----|----|---|---|---|---|---|
| Quantity Demanded (Units) | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| Price (Dollars per unit) | 16 | 14 | 12 | 10 | 8 | 6 | 4 | 2 | 0 |

11. Refer to Table. Suppose the market for this product is served by two firms that have formed a cartel. What price will the cartel charge in this market if the marginal cost of production is \$4?
- a. \$6
 - b. \$8
 - c. \$10
 - d. \$12

12. Refer to Table. If the marginal cost of production in this market is \$4, what is the socially efficient quantity of output?
- 3 units
 - 4 units
 - 5 units
 - 6 units
13. Which of the following individuals is the best example of a structurally unemployed worker?
- A recent college graduate who has entered the labor force.
 - An individual who quits one job in the hope of finding a better job.
 - An individual who has been laid off from his job because of a business cycle recession.
 - An automobile worker who has lost her job because of an increase in automobile imports and does not have the skills currently needed by businesses.
14. In January, the price of dark chocolate candy bars was \$2.00, and Willy's Chocolate Factory produced 80 pounds. In February, the price of dark chocolate candy bars was \$2.50, and Willy's produced 110 pounds. In March, the price of dark chocolate candy bars was \$3.00, and Willy's produced 140 pounds. Using the midpoint method, the price elasticity of supply of Willy's dark chocolate candy bars was about
- 0.70 when the price increased from \$2.00 to \$2.50 and 0.76 when the price increased from \$2.50 to \$3.00.
 - 0.88 when the price increased from \$2.00 to \$2.50 and 1.08 when the price increased from \$2.50 to \$3.00.
 - 1.28 when the price increased from \$2.00 to \$2.50 and 1.16 when the price increased from \$2.50 to \$3.00.
 - 1.42 when the price increased from \$2.00 to \$2.50 and 1.32 when the price increased from \$2.50 to \$3.00.
15. Scenario: Doreen's Dairy produces and sells Swiss cheese. Last year, it produced 7,000 pounds and sold each pound for \$6. In producing the 7,000 pounds, the dairy incurred variable costs of \$28,000 and a total cost of \$40,000.
- Refer to Scenario. In producing the 7,000 pounds of cheese, the firm's average variable cost was
- \$1.71.
 - \$4.00.
 - \$5.71.
 - \$6.00.
16. The profit-maximization problem for a monopolist differs from that of a competitive firm in which of the following ways?

- a. A competitive firm maximizes profit at the point where average revenue equals marginal cost; a monopolist maximizes profit at the point where average revenue exceeds marginal cost.
 - b. A competitive firm maximizes profit at the point where marginal revenue equals marginal cost; a monopolist maximizes profit at the point where marginal revenue exceeds marginal cost.
 - c. For a competitive firm, marginal revenue at the profit-maximizing level of output is equal to marginal revenue at all other levels of output; for a monopolist, marginal revenue at the profit-maximizing level of output is smaller than it is for larger levels of output.
 - d. For a profit-maximizing competitive firm, thinking at the margin is much more important than it is for a profit-maximizing monopolist.
17. Assume that a college student purchases only Ramen noodles and textbooks. If Ramen noodles are an inferior good and textbooks are a normal good, then the income effect associated with an increase in the price of a textbook will result in
- a. a decrease in the consumption of textbooks and a decrease in the consumption of Ramen noodles.
 - b. a decrease in the consumption of textbooks and an increase in the consumption of Ramen noodles.
 - c. an increase in the consumption of textbooks and an increase in the consumption of Ramen noodles.
 - d. an increase in the consumption of textbooks and a decrease in the consumption of Ramen noodles.
18. For a particular good, a 12 percent increase in price causes a 3 percent decrease in quantity demanded. Which of the following statements is most likely applicable to this good?
- a. There are many substitutes for this good.
 - b. The good is a necessity.
 - c. The market for the good is narrowly defined.
 - d. The relevant time horizon is long.
19. For a perfectly competitive firm, in the long-run equilibrium,
- a. $P = AFC = ATC = MR$.
 - b. $MR = MC = AFC$.
 - c. $MR = P = ATC = MC$.
 - d. $P = MC > ATC$.
20. Which of the following shifts the supply curve rightward?
- a. an increase in consumer's income
 - b. a positive change in preferences for the good
 - c. a decrease in the price of the good
 - d. a decrease in the price of a factor of production used to produce the good
21. The Laffer curve illustrates that
- a. deadweight loss rises by the square of the increase in a tax.
 - b. deadweight loss rises exponentially as a tax increases.

- c. tax revenue first rises, then falls as a tax increases.
d. Both a) and b) are correct.

22. Which of the following goods is rival and excludable?

- a. an uncongested toll road
b. an uncongested nontoll road
c. a congested nontoll road
d. a congested toll road

23. The multiplier effect states that there are additional shifts in aggregate demand from expansionary fiscal policy, because it

- a. reduces investment and thereby increases consumer spending.
b. increases the money supply and thereby reduces interest rates.
c. increases income and thereby increases consumer spending.
d. decreases income and thereby increases consumer spending.

24. Assume that Japan and Korea can switch between producing cars and producing airplanes at a constant rate.

| | Hours Needed to Make 1 (unit) | | Quantity Produced in 2400 Hours | |
|-------|-------------------------------|-----------|---------------------------------|-----------|
| | Cars | Airplanes | Cars | Airplanes |
| Japan | 30 | 150 | 80 | 16 |
| Korea | 50 | 150 | 48 | 16 |

Refer to Table. Japan should specialize in the production of

- a. cars and import airplanes.
b. airplanes and import cars.
c. both goods and import neither good.
d. neither good and import both goods.

25. Suppose that firms selling a good in a perfectly competitive market are incurring economic losses. Over time, _____.

- a. new firms will enter the market, the price of the good will rise, and economic losses will decrease
b. some firms will exit the market, the price of the good will rise, and economic losses will decrease
c. new firms will enter the market, the price of the good will fall, and economic losses will increase
d. some firms will exit the market, the price of the good will fall, and economic losses will decrease

二、計算題 (25 分，可用中文作答)

1. Consider an economy produced 10000 bananas and 5000 apples in year 1. The price of banana is \$5 and the price of apple is \$10. In year 2, the production of bananas increased by 10% and apples decreased by 10%. The price of the banana is \$6 and the price of apple is \$8.
 - A) Calculate the nominal GDP in year 1 and 2. (4%)
 - B) Calculate the real GDP of year 1 and 2 using year 1 as the base year. (4%)
 - C) Calculate the GDP deflator. (2%)

2. There are only two players, X company and Y company, in a small town. Let's analyze the game between two companies. Suppose that each company can cut fares by 50% or leave fares alone.
 - i. If both companies cut fares, each company's profit = \$40 million
 - ii. If neither company cuts fares, each company's profit = \$60 million
 - iii. If only one company cuts its fares, its profit = \$80 million; the other company's profits = \$20 million
 - A) Draw the payoff matrix (4%)
 - B) Dominant Strategy for X company and Y company? (2%)
 - C) What is the Nash equilibrium in this game? Explain. (4%)

3. The table below shows the transaction in Country C last year. What is Country C's GDP? Show your calculation. (5%)

| Item | Amount (millions of dollars) |
|-------------------------|------------------------------|
| Wages paid | 200 |
| Consumption expenditure | 120 |
| Taxes | 40 |
| Transfer payments | 25 |
| Imports | 40 |
| Profits | 35 |
| Investment | 30 |
| Government expenditure | 50 |
| Exports | 30 |