

國立成功大學

115學年度碩士班招生考試試題

編 號：174

系 所：電信管理研究所

科 目：經濟學

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節 次：第 1 節

注 意：1.不可使用計算機
2.請於答案卷(卡)作答，於
試題上作答，不予計分。

一、單選題 (75 分，每題 3 分)

1. Consider a country's market for coffee, in which the government has imposed a nonbinding price ceiling. Which of the following events could convert the price ceiling from a nonbinding to a binding price ceiling?
- A government study that shows that consuming coffee increases the incidence of cancer.
 - A large increase in the size of the coffee bean crop; coffee beans are used to produce coffee.
 - Coffee bean producers in other countries refuse to ship coffee beans to producers in this country.
 - A sharp drop in consumer income; coffee is a normal good.
2. Which of the following statements correctly describe a similarity between monopolistic competition and perfect competition in the long run?
- (1) Firms face downward-sloping demand curves.
 - (2) Firms have marginal revenue curves that lie below their demand curves.
 - (3) Firms earn zero economic profit.
 - (4) Firms produce at the minimum of average total cost.
- (1) and (3)
 - (2) and (3)
 - (3) and (4)
 - (3) only
3. Suppose the income of buyers in a market for an inferior good decreases, and a technological advancement occurs at the same time. What would we expect to happen in the market?
- Equilibrium quantity would increase, but the impact on equilibrium price would be ambiguous.
 - Equilibrium price would decrease, but the impact on equilibrium quantity would be ambiguous.
 - Equilibrium quantity would decrease, but the impact on equilibrium price would be ambiguous.
 - Equilibrium quantity and price would increase.
4. The sticky-price theory of the short-run aggregate supply curve says that if the price level rises by 5% while firms were expecting it to rise by 2%, then some firms with high menu costs will have
- lower than desired prices, which leads to an increase in the aggregate quantity of goods and services supplied.
 - lower than desired prices, which leads to a decrease in the aggregate quantity of goods and services supplied.
 - higher than desired prices, which leads to an increase in the aggregate quantity of goods and services supplied.
 - higher than desired prices, which leads to a decrease in the aggregate quantity of goods and services supplied.
5. Which of the following is correct?
- Rent control and the minimum wage are both examples of price ceilings.

- b. Rent control and the minimum wage are both examples of price floors.
 - c. Rent control is an example of a price floor, and the minimum wage is an example of a price ceiling.
 - d. Rent control is an example of a price ceiling, and the minimum wage is an example of a price floor.
6. Consider the indifference curve map and budget constraint for two goods, beef and potatoes. Suppose the good measured on the horizontal axis, potatoes, is a Giffen good. Beef is measured on the vertical axis and is a normal good. When the price of potatoes increases, the substitution effect causes
- a. an increase in the consumption of potatoes, and the income effect causes a decrease in the consumption of potatoes. The substitution effect is less than the income effect.
 - b. a decrease in the consumption of potatoes, and the income effect causes an increase in the consumption of potatoes. The substitution effect is greater than the income effect.
 - c. an increase in the consumption of potatoes, and the income effect causes a decrease in the consumption of potatoes. The substitution effect is greater than the income effect.
 - d. a decrease in the consumption of potatoes, and the income effect causes an increase in the consumption of potatoes. The substitution effect is less than the income effect.
7. Amy tutors in her spare time for extra income. Students are willing to pay \$36 per hour for as many hours Amy is willing to tutor. On a particular day, she is willing to tutor the first hour for \$12, the second hour for \$18, the third hour for \$23, and the fourth hour for \$36. Assume Amy is rational in deciding how many hours to tutor. Her producer surplus is
- a. \$89.
 - b. \$55.
 - c. \$53.
 - d. \$42.
8. A tax of \$0.25 is imposed on each bag of cookies sold. The tax reduces producer surplus by \$600 per day, generates tax revenue of \$1,220 per day, and reduces the equilibrium quantity of cookies by 120 bags per day. The tax
- a. creates a deadweight loss of \$15 per day.
 - b. decreases consumer surplus by \$645 per day.
 - c. decreases total surplus from \$3,000 to \$1,800 per day.
 - d. decreases the equilibrium quantity from 6,000 bags to 5,880 bags per day.
9. Olivia is planning her activities for a hot summer day. She would like to go to the local swimming pool and see the latest blockbuster movie, but because she can only get tickets to the movie for the same time that the pool is open she can only choose one activity. This illustrates the basic principle that
- a. people face tradeoffs.
 - b. people respond to incentives.
 - c. rational people think at the margin.
 - d. improvements in efficiency sometimes come at the expense of equality.

10. Which of the following pairs of goods includes a good that is excludable but not rival in consumption, as well as a good that is not excludable but rival in consumption?

- a. Congested nontoll road, national defense
- b. Congested nontoll road, fish in the ocean
- c. Online music subscription, national defense
- d. Online music subscription, congested nontoll road

Category	In Billions of Dollars
Household purchases of durable goods	\$1,045
Household purchases of nondurable goods	\$1,865
Household purchases of services	\$685
Household purchases of new housing	\$710
Purchases of capital equipment	\$350
Inventory changes	\$420
Purchases of new structures	\$620
Depreciation	\$120
Salaries of government workers	\$1,655
Government expenditures on public works	\$805
Transfer payments	\$950
Foreign purchases of domestically produced goods	\$90
Domestic purchases of foreign goods	\$150

11. Refer to Table. What was this country's GDP?

- a. \$7,145
- b. \$8,095
- c. \$8,215
- d. \$9,165

12. Adam decides to open his own business and earns \$130,000 in accounting profit the first year. When deciding to open the business, he withdrew \$20,000 from his savings, which earned 5 percent interest. He also turned down three separate job offers with annual salaries of \$30,000, \$40,000, and \$45,000. What is Adam's economic profit from running his own business?

- a. \$84,000
- b. \$89,000
- c. \$99,000
- d. \$129,000

13. Which of the following statements regarding a competitive firm is correct?

- a. Because each firm faces a downward sloping demand, if a firm increases its level of output, the firm will have to charge a lower price to sell the additional output.

- b. If a firm raises its price, the firm may be able to increase its total revenue even though it will sell fewer units.
 - c. By lowering its price below the market price, the firm will benefit from selling more units at the lower price than it could have sold by charging the market price.
 - d. For all firms, average revenue equals the price of the good.
14. In the short run, a perfectly competitive firm will shut down if
- a. it incurs any economic loss.
 - b. price is smaller than average total cost.
 - c. total revenue is less than total fixed cost.
 - d. total revenue is less than total variable cost.
15. Which of the following would shift the long-run Phillips curve to the right?
- a. Expansionary fiscal policy
 - b. An increase in the inflation rate
 - c. Increases in unemployment compensation
 - d. Expansionary monetary policy.
16. Which of the following can create a monopoly?
- (1) high prices ; (2) public franchise ; (3) patent ; (4) government license
- a. (1) and (2)
 - b. (1) and (3)
 - c. (1) (3) (4)
 - d. (2) (3) (4)
17. How is a monopolistically competitive firm similar to a monopoly firm?
- a. Both produce a unique good.
 - b. Both produce where price equals marginal cost.
 - c. Both produce where marginal revenue equals marginal cost.
 - d. Both will observe entry into the industry if economic profit is positive.
18. Consider Jenny's decision to go to college. If she goes to college, she will spend \$28,000 on tuition, \$10,000 on room and board, and \$1,200 on books. If she does not go to college, she will earn \$20,000 working in a store and spend \$12,500 on room and board. Jenny's opportunity cost of going to college is
- a. \$28,000.
 - b. \$46,700.
 - c. \$49,200.
 - d. \$59,200.

19. A monopolistically competitive firm is like an oligopolistic firm insofar as
- both have *MR* curves that lie beneath their demand curves.
 - both can earn an economic profit in the long run.
 - both face perfectly elastic demand.
 - neither is protected by high barriers to entry.
20. A bank has an 8 percent reserve requirement, \$10,000 in deposits, and has loaned out all it can, given the reserve requirement.
- It has \$80 in reserves and \$9,920 in loans.
 - It has \$800 in reserves and \$9,200 in loans.
 - It has \$1,250 in reserves and \$8,750 in loans.
 - It has \$8,000 in reserves and \$2,000 in loans.
21. The labor supply curve may have a backward-bending portion if
- at lower wages, the income effect is smaller than the substitution effect.
 - at lower wages, the income effect is larger than the substitution effect.
 - at higher wages, the income effect is smaller than the substitution effect.
 - at higher wages, the income effect is larger than the substitution effect.
22. A firm adopts a strategy of “small profit and quick return (thin margins with high sales volume)”. This strategy is most likely to be successful when _____.
- the demand for the product is price elastic
 - the supply of the product is highly elastic in the short run
 - the demand for the product is large in quantity at the current price
 - the demand for the product is price inelastic but the firm lowers price
23. Suppose that a worker in Rland can produce either 4 radios or 1 television per year, and a worker in Tland can produce either 1 radio or 4 televisions per year. Each nation has 50 workers. Also, suppose that each country completely specializes in producing the good in which it has a comparative advantage. If Rland trades 50 radios to Tland in exchange for 50 televisions each year, then each country's maximum consumption of new radios and televisions per year will be
- 50 radios, 150 televisions in Rland and 150 radios, 50 televisions in Tland.
 - 50 radios, 50 televisions in Rland and 50 radios, 50 televisions in Tland.
 - 150 radios, 50 televisions in Rland and 50 radios, 200 televisions in Tland.
 - 150 radios, 50 televisions in Rland and 50 radios, 150 televisions in Tland.
24. Which of the following statements is not correct?
- Tradable pollution permits have an advantage over corrective taxes if the government is uncertain as to the optimal size of the tax necessary to reduce pollution to a specific level.

- b. Corrective taxes set the maximum quantity of pollution, whereas tradable pollution permits fix the price of pollution.
- c. Both corrective taxes and tradable pollution permits reduce the cost of environmental protection and thus should increase the public's demand for a clean environment.
- d. Both corrective taxes and tradable pollution permits provide market-based incentives for firms to reduce pollution.

25. Which of the following is the most correct statement about the relationship between inflation and unemployment?

- a. In the long run, falling inflation is associated with falling unemployment.
- b. In the long run, falling inflation is associated with rising unemployment.
- c. In the short run, falling inflation is associated with falling unemployment.
- d. In the short run, falling inflation is associated with rising unemployment.

二、計算分析題 (25 分，請根據題目寫出計算或推論過程，中英文作答皆可)

2.1. When her income increased from \$10,000 to \$20,000, Charlotte's consumption of rice decreased from 10 bowls to 5 bowls, while her consumption of noodles increased from 2 bowls to 4 bowls. Using the midpoint method, calculate the income elasticity of demand for noodles and rice, and determine whether each good is normal or inferior. (5%)

2.2. Consider an economy that produces only dresses (Year 1 is the base year)

- In year 1, the quantity produced is 30 dresses, and the price is \$40 per dress.
- In year 2, the quantity produced is 40 dresses, and the price is \$50 per dress.
- In year 3, the quantity produced is 50 dresses, and the price is \$60 per dress.
 - a. For each of the three years, calculate nominal GDP, real GDP, and the GDP deflator. (7%)
 - b. Calculate the percentage growth rate of real GDP from Year 2 to Year 3. (3%)

2.3. A and B are two college roommates who both prefer a clean common space in their dorm room, but neither enjoys cleaning. The roommates must decide whether to clean or not clean the common space. The payoffs are as follows:

- If both roommates clean, each receives 50 units of happiness.
- If neither roommate cleans, each receives 20 units of happiness.
- If only one roommate cleans, the one who does not clean receives 70 units of happiness, while the one who cleans receives 15 units of happiness.
 - a. Draw the payoff matrix. (4%)
 - b. Identify the dominant strategy for each roommate (if any). (2%)
 - c. What is the Nash equilibrium of the game? (2%)
 - d. Do they achieve the best outcome? If so, identify it. If not, explain why. (2%)