

考試科目	經濟學	系所別	金融、財務管理	考試時間	二月 4 日(四) 第二節
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Multiple Choice (1 point each)

Identify the letter of the choice that best completes the statement or answers the question.

1. A country has a comparative advantage in a product if
 - A. the world price is lower than its domestic price.
 - B. the world price is higher than its domestic price.
 - C. the world price is equal to its domestic price.
 - D. None of the above.
2. Which of the following is unique to a monopolistically competitive firm when compared to an oligopoly?
 - A. a downward sloping demand curve
 - B. a horizontal demand curve
 - C. There are many sellers.
 - D. There are many buyers.
3. For a firm in a perfectly competitive market, the price of the good is always equal to
 - A. marginal revenue.
 - B. average revenue.
 - C. equilibrium market price.
 - D. All of the above are correct.
4. Demand is elastic if
 - A. elasticity is less than 1.
 - B. elasticity is equal to 1.
 - C. elasticity is greater than 1.
 - D. elasticity is equal to 0.
5. The term ceteris paribus refers to
 - A. a central market price.
 - B. a real-world situation in which every variable is held constant.
 - C. a hypothetical situation in which some variables are assumed to be constant.
 - D. a situation in which only the price is held constant.

備註

- 一、作答於試題上者，不予計分。
- 二、試題請隨卷繳交。

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<p>6. When a firm is able to put idle equipment to use by hiring another worker,</p> <p>A. variable costs will rise.</p> <p>B. variable costs will fall.</p> <p>C. fixed costs will fall.</p> <p>D. both fixed costs and variable costs will rise.</p> <p>7. Very often, the reason that players can solve the prisoners' dilemma and reach the most profitable outcome is that</p> <p>A. each player tries to capture a large portion of the market share.</p> <p>B. the players play the game not once but many times.</p> <p>C. the game becomes more competitive.</p> <p>D. self interest results in the Nash equilibrium which is the best outcome for the players.</p> <p>8. Suppose that for Emily, DVDs and trips to the movie theater are perfect substitutes. Currently, Emily is spending all of her income on trips to the movie theater. If the price of DVDs doubles, the substitution effect will</p> <p>A. be two times the income effect.</p> <p>B. be half the income effect.</p> <p>C. be zero.</p> <p>D. always increase the number of trips to the movie theater Emily makes.</p> <p>9. How does a competitive market compare to a monopoly that engages in perfect price discrimination?</p> <p>A. In both cases, total social welfare is the same.</p> <p>B. Total social welfare is higher in the competitive market than with the perfectly price discriminating monopoly.</p> <p>C. In both cases, some potentially mutually beneficial trades do not occur.</p> <p>D. Consumer surplus is the same in both cases.</p> <p>10. Two firms, <i>A</i> and <i>B</i>, each currently dump 20 tons of chemicals into the local river. The government has decided to reduce the pollution and from now on will require a pollution permit for each ton of pollution dumped into the river. The government gives each firm 10 pollution permits, which it can either use or sell to the other firm. It costs Firm <i>A</i> \$100 for each ton of pollution that it eliminates before it reaches the river, and it costs Firm <i>B</i> \$50 for each ton of pollution that it</p>					
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<p>eliminates before it reaches the river. After the two firms buy or sell pollution permits from each other, we would expect that</p> <p>A. Firm <i>A</i> will no longer pollute, and Firm <i>B</i> will not reduce its pollution at all.</p> <p>B. Firm <i>B</i> will no longer pollute, and Firm <i>A</i> will not reduce its pollution at all.</p> <p>C. Firm <i>A</i> will dump 10 tons of pollution into the river, and Firm <i>B</i> will dump 10 tons of pollution into the river.</p> <p>D. Firm <i>A</i> will increase its pollution and Firm <i>B</i> will reduce its pollution.</p> <p>11. Suppose Country <i>A</i>'s Phillips Curve can be written as $U = 0.05$. Which of the following statements is wrong?</p> <p>A. The natural rate of unemployment is 5%.</p> <p>B. There is no inflation in the economy.</p> <p>C. It is a long-run Philips Curve.</p> <p>D. There is no cyclical unemployment.</p> <p>12. Other things remaining equal, which of the following policies might reduce the real interest rate of an economy?</p> <p>A. The central bank increases the discount rate.</p> <p>B. The central bank sells bonds.</p> <p>C. The central bank lowers the reserve ratio.</p> <p>D. None of the above.</p> <p>13. Which of the followings is not included in M1?</p> <p>A. Currency.</p> <p>B. Demand deposits.</p> <p>C. Credit cards.</p> <p>D. Traveler's checks.</p> <p>14. Assume a fixed basket of Goods to compute the CPI is 10 hotdogs and 10 hamburgers. What is the inflation rate when the price of hotdogs increases from 2 dollars to 3 dollars and the price of the hamburgers increases from 3 dollars to 4 dollars, compared with the base year?</p> <p>A. 20%</p> <p>B. 30%</p> <p>C. 40%</p> <p>D. 60%</p>					
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15. Which of the following policies can reduce the structural unemployment?
- The central bank reduces the discount rate.
 - The central bank conducts open market operation.
 - The central bank lowers the reserve ratio.
 - None of the above.
16. Decreasing government spending while increasing the tax rate would be the best policy for combating
- a recession.
 - inflation.
 - a decreasing average price level.
 - an expansionary fiscal policy.
17. If the U.S. government wanted to increase aggregate demand by \$50 billion and the MPS is 0.4, then it should
- decrease government spending by \$20 billion.
 - decrease government spending by \$10 billion.
 - increase government spending by \$20 billion.
 - increase government spending by \$10 billion.
18. The crowding out effect refers to which of the following?
- Increases in government spending may raise the interest rate and reduce investment.
 - Increases in government spending will shorten the recessionary gap.
 - Decreases in consumption will increase taxes.
 - High taxes reduce savings and decrease investment.
19. Tariffs and quotas share many of the same economic effects. Which of the following statements is false?
- Economic resources are reallocated toward inefficient producers.
 - Artificially high prices hurt consumers.
 - Inefficient domestic producers are protected at the expense of foreign firms creating dead weight loss.
 - Tariffs and quotas collect revenue for the government.

備

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20. If the U.S. dollar depreciates relative to the Chinese yuan, then

- A. U.S. goods sold in China would become cheaper.
- B. U.S. goods sold in China would become more expensive.
- C. more yuan are needed to buy a dollar.
- D. prices would not differ for U.S. or Chinese goods.

Problems and Short-essay Questions

Please answer the following questions IN SEQUENCE. All questions may be answered in either Chinese or English.

1. Consider the following production function $Q = L^{1/2}K^{1/2}$, where Q represents the production level, L represents labor and K represents capital. Answer the following questions.

A. (6 points) Derive MRTS.

B. (6 points) Let w/r be the relative factor price, where w represents the wage and r the capital return. Suppose that firms in the market observe the relative factor price and take it as given. What is the condition that must be satisfied when the cost is minimized?

C. (8 points) Derive the marginal cost.

2. Scott has an expected utility function of $U(w) = \sqrt{w}$, where w is his level of wealth. Currently, his only wealth is a store worth 625. The probability that his store will burn is 20%. If a fire occurs, the store will be worth nothing.

A. (3 points) What is his expected utility?

B. (3 points) What is the certainty equivalent level of wealth?

C. (8 points) Suppose that there is a competitive risk-neutral insurance company offering actuarially fair insurance. How much insurance premium will he pay to eliminate the risk?

D. (6 points) Now suppose that the insurance company is a monopoly that has the market power to set the profit-maximizing prices. What is the most Scott is willing to pay for an insurance policy that would fully reimburse the amount of loss from fire?

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3. Suppose Country A only produces hot dogs and banana and imports only pork. The prices and the quantities of the outputs and the imports for year 2020 and 2021 are summarized in the table below.

Year 2020	Quantity	Price	Year 2021	Quantity	Price
Hot Dogs	4	10	Hot Dogs	20	5
Banana	10	5	Banana	10	10
Pork	10	20	Pork	20	10

Please answer the following questions. You should show your calculation to obtain full credits.

- A. (5 points) If Year 2020 is the base year, what is the GDP deflator in Year 2021?
- B. (5 points) If the Quantity Equation is hold and the rate at which money changes hands is 3, what is the quantity of money in Year 2020.
- C. (5 points) If the reserve ratio in Country A is 10 percent, what is the minimum initial deposits that can lead to the quantity of money in (B)?
- D. (5 points) Suppose the government uses the data in Year 2020 as the fixed basket for calculating the CPI. If the nominal interests in two years are the same, according to the simple Keynesian model, investment will increase or decrease in Year 2021, compared with Year 2020? Please explain your answer.

4. You are given the following information: bank deposits 100, currency-to-deposits ratio 0.2, required reserve ratio 0.1.

- A. (12 points) Calculate the money multiplier, the bank reserves, and the money supply.
- B. (8 points) Assume that the central bank increases the required reserve ratio to 0.5 by keeping the currency, the level of deposits, and the currency-holding ratio constant. What is the new level of bank reserves, and money supply?

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