

商學院

考試科目	經濟學	所別	4111-4182-4121-4122 4171-4191-4194-4211	考試時間	2月22日(六)第一節
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**Multiple Choice (1 point each)**

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

- Which of the following is an advantage of tradable pollution permits?
  - Each firm is allowed to pollute exactly the same amount.
  - Revenue from the sale of permits is greater than revenue from a corrective tax.
  - The initial allocation of permits to firms does not affect the efficiency of the market.
  - Firms will engage in joint research efforts to reduce pollution.
- Alicia is a vegetarian, so she does not eat beef. That is, beef provides no additional utility to Alicia. She loves potatoes, however. If we illustrate Alicia's indifference curves by drawing beef on the horizontal axis and potatoes on the vertical axis, her indifference curves will
  - slope downward.
  - be vertical straight lines.
  - slope upward.
  - be horizontal straight lines.
- Which of the following demonstrates the law of demand?
  - After Jon got a raise at work, he bought more pretzels at \$1.50 per pretzel than he did before his raise.
  - Melissa buys fewer muffins at \$0.75 per muffin than at \$1 per muffin, other things equal.
  - Dave buys more donuts at \$0.25 per donut than at \$0.50 per donut, other things equal.
  - Kendra buys fewer Snickers at \$0.60 per Snickers after the price of Milky Ways falls to \$0.50 per Milky Way.
- Suppose researchers at the University of Wisconsin discover a new vitamin that increases the milk production of dairy cows. If the demand for milk is relatively inelastic, the discovery will
  - raise both price and total revenues.
  - lower both price and total revenues.
  - raise price and lower total revenues.
  - lower price and raise total revenues.

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註 試題隨卷繳交

政學院

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<p>5. When a tax is levied on buyers of tea,</p> <p>A. buyers of tea and sellers of tea both are made worse off.</p> <p>B. buyers of tea are made worse off, and the well-being of sellers is unaffected.</p> <p>C. buyers of tea are made worse off, and sellers of tea are made better off.</p> <p>D. the well-being of both buyers of tea and sellers of tea is unaffected.</p> <p>6. When a country allows trade and becomes an exporter of a good</p> <p>A. consumer surplus and producers surplus will increase.</p> <p>B. consumer surplus and producer surplus will decrease.</p> <p>C. consumer surplus will increase and producer surplus will increase.</p> <p>D. consumer surplus will decrease and producer surplus will increase.</p> <p>7. When a perfectly competitive firm makes a decision to shut down, it is most likely that</p> <p>A. marginal cost is above average variable cost.</p> <p>B. price is below the minimum of average variable cost.</p> <p>C. fixed costs exceed variable costs.</p> <p>D. average fixed costs are rising.</p> <p>8. Price discrimination is a rational strategy for a profit-maximizing monopolist when</p> <p>A. there is no opportunity for arbitrage across market segmentations.</p> <p>B. there is an opportunity for arbitrage across market segmentations.</p> <p>C. consumers are unable to be segmented into identifiable markets.</p> <p>D. they want to increase the deadweight loss that results from profit-maximizing behavior.</p> <p>9. As a group, oligopolists would always be better off if they would act collectively</p> <p>A. as a single monopolist.</p> <p>B. as a single competitor.</p> <p>C. as if they were each seeking to maximize their own profit.</p> <p>D. in a manner that would prohibit collusive agreements.</p> <p>10. If firms in a monopolistically competitive industry are making profits,</p> <p>A. firms will likely be subject to regulation.</p> <p>B. barriers to entry will be strengthened.</p> <p>C. new firms will enter the market.</p> <p>D. some firms must exit the market.</p>					
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11. A company uses 100 workers and 30 units of capital to produce 500 units of output. If this company increases its capital to 50 units and, as a result, its output increases by 300 units, the productivity of labor \_\_\_\_\_ to \_\_\_\_\_ units per worker.

- A. increases; 1
- B. increases; 3
- C. increases; 8
- D. decreases; 4

12. Official unemployment statistics:

- A. understate unemployment because individuals receiving unemployment compensation are counted as employed.
- B. understate unemployment because discouraged workers are not counted as unemployed.
- C. include cyclical and structural unemployment, but not frictional unemployment.
- D. overstate unemployment because workers who are involuntarily working part time are counted as being employed.

13. A car that is produced in 2004 is not sold until 2005. According to the definition of GDP, in which year's GDP should it be counted?

- A. 2004.
- B. 2004 real GDP; 2005 nominal GDP.
- C. both years.
- D. 2005.

Total Population	30,000
Working-Age Population	25,000
Employment	11,000
Unemployment	1,000

14. Consider the data in the table above for a simple economy. The unemployment rate for this simple economy equals:

- A. 4.0%.
- B. 9.1%.
- C. 8.3%.
- D. 3.3%.

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15. Which of the following could cause nominal GDP to decrease, but real GDP to increase?
- The price level rises and the quantity of final goods and services produced falls.
  - The price level rises and the quantity of final goods and services produced rises.
  - The price level falls and the quantity of final goods and services produced falls.
  - The price level falls and the quantity of final goods and services produced rises.
16. When a member of the nonbank public withdraws currency from her bank account,
- both the monetary base and bank reserves rise.
  - bank reserves fall, but the monetary base remains unchanged.
  - both the monetary base and bank reserves fall.
  - the monetary base falls, but bank reserves remain unchanged.
17. When economists state that money is neutral in the long run, they mean that in the long run,
- the price level is independent of the nominal money supply.
  - the level of output is independent of the nominal money supply.
  - changes in the money supply have the same impact on the rich as they do on the poor.
  - fluctuations in the money supply are equally likely to lead to recessions as to expansions.
18. An expansionary monetary policy that successfully counteracts a recession has the side effect of
- lower investment spending than if no action had been taken.
  - lower output than if no action had been taken.
  - a higher price level than if no action had been taken.
  - a larger government deficit than if no action had been taken.
19. The less interest-sensitive is money demand, the
- steeper is the IS curve.
  - flatter is the LM curve.
  - more effective is monetary policy relative to fiscal policy.
  - more effective is fiscal policy relative to monetary policy.
20. The quantity theory of inflation indicates that the inflation rate equals
- the growth rate of the money supply minus the growth rate of aggregate output.
  - the level of the money supply plus the level of aggregate output.
  - the growth rate of the money supply plus the growth rate of aggregate output.
  - the level of the money supply minus the level of aggregate output.

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### Problems and Short-essay Questions

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

1. Suppose that a firm's fixed proportion production function is given by

$$q = \min(2k, 10l - 2).$$

The inputs are hired in perfectly competitive markets. The rental rates of capital ( $k$ ) and labor ( $l$ ) are  $v$  and  $w$ , respectively.

- (10 points) Calculate the firm's long-run total, average, and marginal cost functions.
- (10 points) Suppose that  $k$  is fixed at 9 in the short run. Calculate the firm's short-run total, average, and marginal cost functions.

2. (20 points) Consider the good  $x$  imported by the home country. To keep things simple, assume that  $x$  constitutes a homogeneous good and that the market for it is perfectly competitive. The demand for  $x$  at home is given by  $Q_D = 200 - 4P$ . The domestic market supply is given by  $Q_S = 4P - 40$ .

- Suppose that  $x$  can be imported at a fixed world price of \$20. Suppose that the home government imposes an import tariff of \$5 per unit of  $x$ . What is the total number of  $x$  imported from abroad?
- Suppose that, because of political-economy considerations, the home government sets its import tariff,  $t$ , in order to maximize:

$$\text{Consumer Surplus} + \text{Tariff Revenues} + A \times (\text{Producer Surplus}).$$

What is the value of  $A$  under which the home government would impose an import tariff of \$5?

3. Assume that firms care about their after-tax rate of return on investment projects. And, suppose the incumbent government has decided to raise taxes on corporations. Use the loanable funds model to explain the effect of the tax increase.

- (7 points) What effect will this have on the investment demand curve? Explain and graph the effect.
- (7 points) What effect will this have on national savings? Explain and graph the effect.
- (6 points) Consider both effects that you have described in parts a and b. What will happen to the real interest rate, national savings, and investment? Explain and graph the effect.

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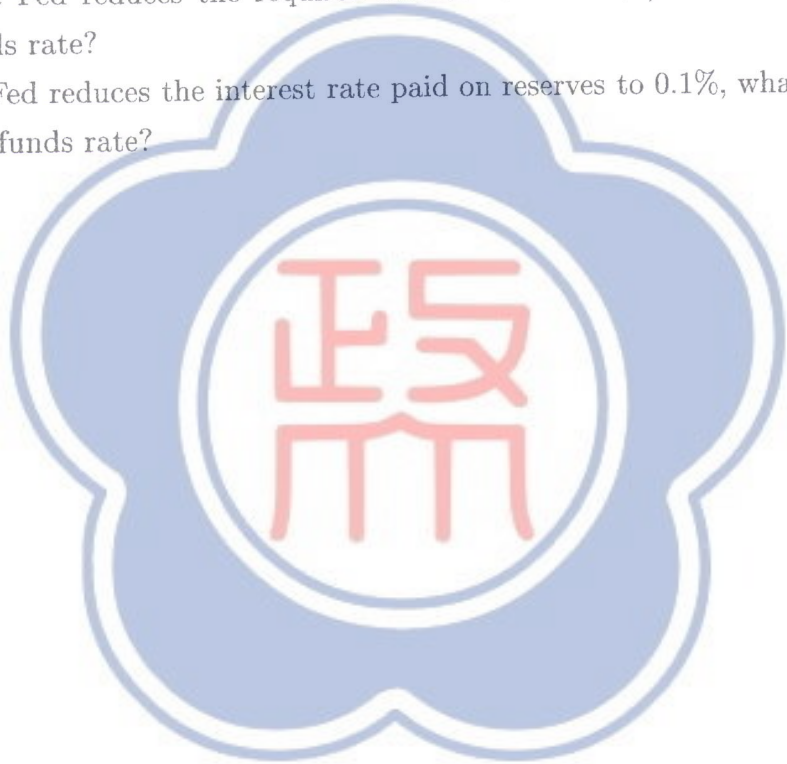
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4. Suppose currently the discount rate is 0.8%, the interest rate the Fed (the central bank) is paying for banks' excess reserves is 0.2%, the required reserve ratio is 5%, and the equilibrium federal funds rate is 0.2%.

a. (6 points) If the Fed reduces the discount rate to 0.6%, what will happen to the equilibrium federal funds rate?

b. (7 points) If the Fed reduces the required reserve ratio to 4%, what will happen to the equilibrium federal funds rate?

c. (7 points) If the Fed reduces the interest rate paid on reserves to 0.1%, what will happen to the equilibrium federal funds rate?



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