國立臺灣師範大學 114 學年度碩士班招生考試試題

科目：經濟學　　　　適用系所：全球經營與策略研究所

注意：本試題共 9 頁，請依序在答案卡上作答，否則不予計分。

選擇題:請選出單一最合適的答案。一題2.5分 。

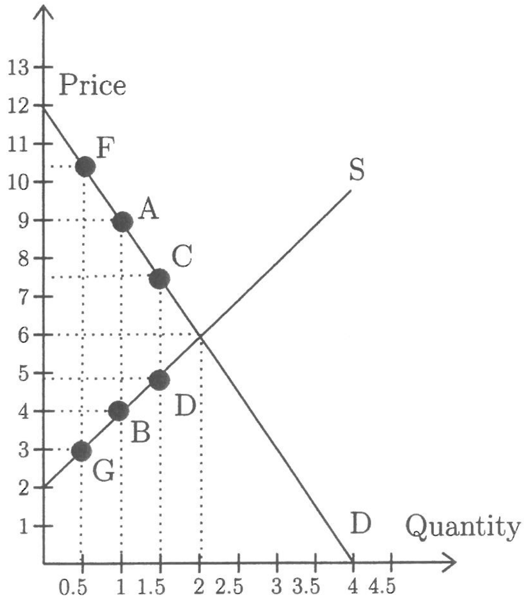
1. Suppose that a worker in Cornland can grow either 40 bushels of corn or 10 bushels of oats per year, and a worker in Oatland can grow either 5 bushels of corn or 50 bushels of oats per year. There are 20 workers in Cornland and 20 workers in Oatland. If the two countries do not trade, Cornland will produce and consume 400 bushels of corn and 100 bushels of oats, while Oatland will produce and consume 60 bushels of corn and 400 bushels of oats. If each country made the decision to specialize in producing the good in which it has a comparative advantage, then the combined yearly output of the two countries would increase by
   A. 280 bushels of corn and 450 bushels of oats.
   B. 300 bushels of corn and 520 bushels of oats.
   C. 320 bushels of corn and 640 bushels of oats.
   D. 340 bushels of corn and 500 bushels of oats.

2. Milk has an elastic demand, and beef has an inelastic demand. Suppose that a mysterious increase in bovine infertility decreases both the population of dairy cows and the population of beef cattle by 50 percent. Total consumer spending on milk will
   A. decrease, and total consumer spending on beef will increase.
   B. decrease, and total consumer spending on beef will decrease.
   C. increase, and total consumer spending on beef will increase.
   D. increase, and total consumer spending on beef will decrease.

3. Suppose there is currently a tax of \$50 per ticket on airline tickets. Sellers of airline tickets are required to pay the tax to the government. If the tax is reduced from \$50 per ticket to \$30 per ticket, then the
   A. supply curve will shift downward by \$20, and the price paid by buyers will decrease by \$20.
   B. supply curve will shift downward by \$20, and the price paid by buyers will decrease by less than \$20.
   C. demand curve will shift upward by \$20, and the effective price received by sellers will increase by \$20.
   D. demand curve will shift upward by \$20, and the effective price received by sellers will increase by less than \$20.

4. Suppose the price of milk is \$2.39 per gallon, and the equilibrium quantity of milk is 100 thousand gallons per day with no tax on milk. Starting from this initial situation, which of the following scenarios would result in the smallest deadweight loss?
   A. The price elasticity of demand for milk is 0.3, the price elasticity of supply for milk is 0.7, and the milk tax amounts to \$0.30 per gallon.
   B. The price elasticity of demand for milk is 0.2, the price elasticity of supply for milk is 0.5, and the milk tax amounts to \$0.30 per gallon.
   C. The price elasticity of demand for milk is 0.2, the price elasticity of supply for milk is 0.7, and the milk tax amounts to \$0.30 per gallon.
   D. The price elasticity of demand for milk is 0.1, the price elasticity of supply for milk is 0.5, and the milk tax amounts to \$0.30 per gallon.

5. The original tax can be represented by the vertical distance AB. Suppose the government is deciding whether to lower the tax to CD or raise it to FG. Which of the following statements is correct?



A. Compared to the original tax, the larger tax will decrease both tax revenue and deadweight loss.

B. Compared to the original tax, the smaller tax will increase both tax revenue and deadweight loss.

C. Compared to the original tax, the larger tax will decrease tax revenue and increase deadweight loss.

D. Both a and b are correct.

6. Two firms, A and B, each currently emit 100 tons of chemicals into the air. The government has decided to reduce the pollution and from now on will require a pollution permit for each ton of pollution emitted into the air. The government gives each firm 40 pollution permits, which it can either use or sell to the other firm. It costs Firm A \$200 for each ton of pollution that it eliminates before it is emitted into the air, and it costs Firm B \$100 for each ton of pollution that it eliminates before it is emitted into the air. After the two firms buy or sell pollution permits from each other, we would expect that Firm A will emit

A. 20 fewer tons of pollution into the air, and Firm B will emit 100 fewer tons of pollution into the air.

B. 100 fewer tons of pollution into the air, and Firm B will emit 20 fewer tons of pollution into the air.

C. 50 fewer tons of pollution into the air, and Firm B will emit 50 fewer tons of pollution into the air.

D. 20 more tons of pollution into the air, and Firm B will emit 100 fewer tons of pollution into the air.

7. A profit-maximizing monopolist charges a price of \$12. The intersection of the marginal revenue and marginal cost curves occurs where output is 10 units and marginal cost is \$6. Average total cost for 10 units of output is \$5. What is the monopolist's profit?

A. \$60

B. \$70

C. \$100

D. \$120

8. Consider the following table of long-run total cost for four different firms:

Quantity	1	2	3	4	5	6	7
Firm 1	\$180	\$350	\$510	\$660	\$800	\$930	\$1,050
Firm 2	\$120	\$250	\$390	\$540	\$700	\$870	\$1,050
Firm 3	\$150	\$300	\$450	\$600	\$750	\$900	\$1,050
Firm 4	\$210	\$340	\$490	\$660	\$850	\$1,060	\$1,290

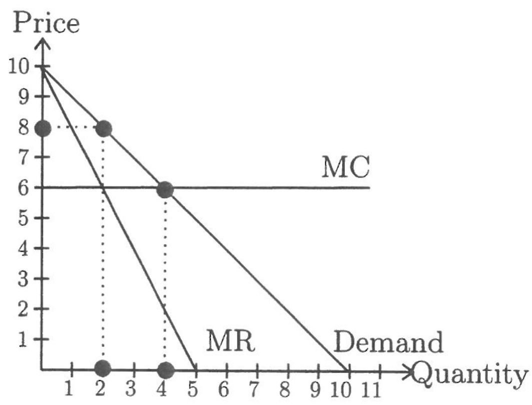
Which firm has constant returns to scale over the entire range of output?

A. Firm 1
B. Firm 2
C. Firm 3
D. Firm 4

9. Robin owns a horse stables and riding academy and gives riding lessons for children at "pony camp." Her business operates in a competitive industry. Robin gives riding lessons to 20 children per month. Her monthly total revenue is \$4,000. The marginal cost of pony camp is \$100 per child. In order to maximize profits, Robin should

A. give riding lessons to more than 20 children per month.
B. give riding lessons to fewer than 20 children per month.
C. continue to give riding lessons to 20 children per month.
D. We do not have enough information to answer the question.

10. Suppose this market is served by two firms who each face the marginal cost curve shown in the diagram and have zero fixed cost. The marginal revenue curve that a monopolist would face in this market is also shown. If the firms are able to collude successfully, each firm should earn a profit equal to



A. \$6.
B. \$4.
C. \$2.
D. \$1.

11. If a U.S. citizen buys a dress made in Nepal by a Nepalese firm, then
A. U.S. consumption increases, U.S. net exports decrease, and U.S. GDP decreases.
B. U.S. consumption increases, U.S. net exports decrease, and U.S. GDP is unaffected.
C. U.S. consumption decreases, U.S. net exports increase, and U.S. GDP increases.
D. U.S. consumption decreases, U.S. net exports increase, and U.S. GDP is unaffected.

12. Suppose that over the last twenty-five years a country's nominal GDP grew to three times its former size. In the meantime, population grew by 40 percent and prices rose by 100 percent. What happened to real GDP per person?

A. It more than doubled.

B. It increased but less than doubled.

C. It remained unchanged.

D. It decreased.

13. For a closed economy, GDP is $12 trillion, consumption is $7 trillion, taxes net of transfers are $3 trillion and the government runs a deficit of $1 trillion. What are private saving and national saving?

A. $5 trillion and $3 trillion, respectively

B. $5 trillion and $1 trillion, respectively

C. $2 trillion and $3 trillion, respectively

D. $2 trillion and $1 trillion, respectively

14. Policies that reduce the time it takes unemployed workers to find new jobs

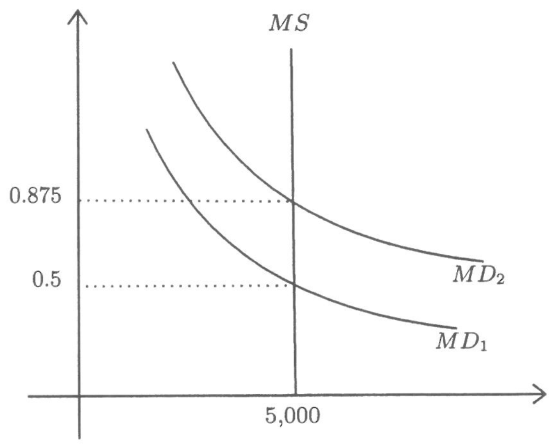
A. can reduce both frictional unemployment and the natural rate of unemployment.

B. can reduce frictional unemployment, but they cannot reduce the natural rate of unemployment.

C. cannot reduce frictional unemployment, but they can reduce the natural rate of unemployment.

D. cannot reduce either frictional unemployment or the natural rate of unemployment.

15. Suppose the relevant money-demand curve is the one labeled MD_1; also suppose the economy's real GDP is 20,000 for the year. If the money market is in equilibrium, then how many times per year is the typical dollar bill used to pay for a newly produced good or service?



A. 2

B. 4

C. 8

D. 10

16. If domestic residents of other countries purchase $600 billion of U.S. assets and U.S residents purchase $500 billion of foreign assets, then U.S. net capital outflow is

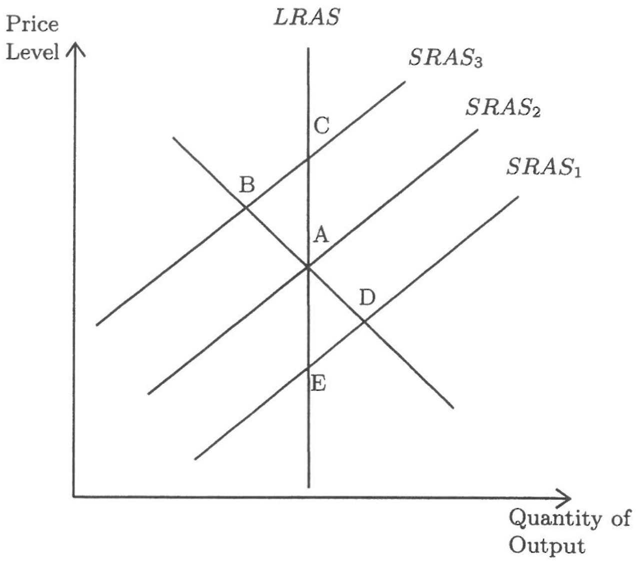
A. $100 billion and the U.S. has a trade surplus.

B. $100 billion and the U.S has a trade deficit.

C. -$100 billion and the U.S. has a trade surplus.

D. -$100 billion and the U.S. has a trade deficit.

17. Suppose the economy starts at A. If there is a oil price shock without any policy implementation, then the economy moves to



A. B in the short run; A in the long run
B. B in the short run; C in the long run
C. C in the short run; B in the long run
D. D in the short run; A in the long run

18. Other things the same, which of the following responses would we expect from an increase in U.S. interest rates?
A. Foreign citizens decide to buy fewer U.S. bonds.
B. You decide to purchase a new oven for your cookie factory.
C. Your aunt puts more money in her savings account.
D. More people decide to purchase a home using a mortgage loan.

19. If U.S. speculators gained greater confidence in foreign economies so that they wanted to move more of their wealth into foreign countries, the dollar would
A. appreciate which would cause aggregate demand to shift right.
B. appreciate which would cause aggregate demand to shift left.
C. depreciate which would cause aggregate demand to shift right.
D. depreciate which would cause aggregate demand to shift left.

20. Assume there is a multiplier effect, some crowding out, and no accelerator effect. An increase in government expenditures changes aggregate demand more,
A. the smaller the MPC and the weaker the influence of income on money demand.
B. the smaller the MPC and the stronger the influence of income on money demand.
C. the larger the MPC and the weaker the influence of income on money demand.
D. the larger the MPC and the stronger the influence of income on money demand.

21. When Joe maximizes utility, he finds that his MRS_{xy} is greater than P_x/P_y. It is most likely that:
A. Joe's preferences are incomplete.
B. Joe's preferences are irrational.
C. Joe is not consuming good x.
D. Joe is not consuming good y.

22. Consider the following three market baskets:

	Cheese	Crackers
A	5	8
B	15	6
C	10	7

If baskets A and B are on the same indifference curve and if indifference curves exhibit diminishing MRS:

A. A and B are both preferred to C.

B. C is on the same indifference curve as A and B.

C. C is preferred to both A and B.

D. There is not enough information to determine preferences for C relative to the other goods.

23. Pencils sell for 50 cents and pens sell for 10 cents. Suppose Jack, whose preferences satisfy all of the basic assumptions, buys 5 pens and one pencil each semester. With this consumption bundle, his MRS of pencils for pens is 3. Which of the following is true?

A. Jack could increase his utility by buying more pens and fewer pencils.

B. Jack could increase his utility by buying more pencils and fewer pens.

C. Jack could increase his utility by buying more pencils and more pens.

D. Jack could increase his utility by buying fewer pencils and fewer pens.

24. Which of the following statements best summarizes the law of diminishing marginal returns?

A. In the short run, as more labor is hired, output diminishes.

B. In the short run, as more labor is hired, output increases at a diminishing rate.

C. In the short run, the amount of labor a firm will hire diminishes as output increases.

D. As more labor is hired, the length of time that defines the short run diminishes.

25. A firm's marginal product of labor is 4 and its marginal product of capital is 5. If the firm adds one unit of capital, but does not want its output quantity to change, the firm should

A. use five fewer units of labor.

B. use 0.8 fewer units of labor.

C. use 1.25 fewer units of labor.

D. add 1.25 units of labor.

26. In the long run, profits will equal zero in a competitive market because of

A. constant returns to scale.

B. identical products being produced by all firms.

C. the availability of information.

D. free entry and exit.

27. A multiplant monopolist can produce her output in either of two plants. She discovers that when marginal revenue is \$ 50, the marginal cost in plant 1 is \$20 while the marginal cost in plant 2 is \$25. To maximize profits the firm will

A. produce less output in plant 1 and more in plant 2.

B. produce more output in plant 1 and less in the plant 2.

C. produce more in both plants.

D. produce less in both plants.

28. The market power for a firm in the Cournot model will be greater
    - A. if the market demand is more elastic.
    - B. if there are fewer firms in the industry.
    - C. if market demand is higher.
    - D. the more output this firm produces.

29. Suppose that the marginal cost of an additional ton of steel produced by a Japanese firm is the same whether the steel is set aside for domestic use or exported abroad. If the price elasticity of demand for steel is smaller abroad than it is in Japan, which of the following will be correct?
    - A. The Japanese firm will sell more steel abroad than they will sell in Japan.
    - B. The Japanese firm will sell more steel in Japan than they will sell abroad.
    - C. The Japanese firm will sell steel at a higher price abroad than they will charge domestic users.
    - D. The Japanese firm will sell steel at a lower price abroad than they will charge domestic users.

30. A profit-maximizing monopolist will never operate in the portion of the demand curve with price elasticity equal to
    - A. -3.
    - B. -1.
    - C. -1/3.
    - D. None of the above—the price elasticity does not matter.

31. When we convert the eurozone's nominal GDP into dollars and adjust for price differences, the U.S. economy is about _________times the size of the eurozone economy.

U.S. and Eurozone (18 Economies) Nominal GDP in 2015

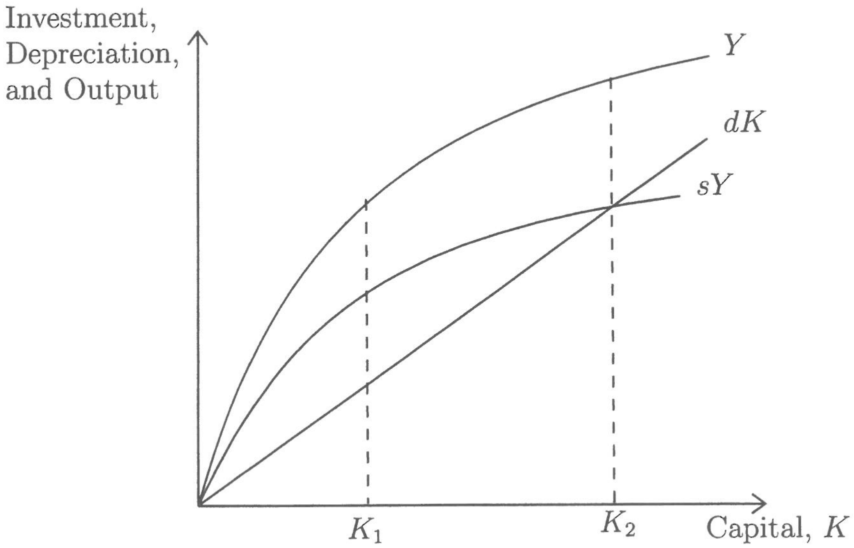
	2015
Eurozone nominal GDP (€ billions)	€11,548
U.S. nominal GDP ($ billions)	$20,580
Dollar/euro exchange rate	$1.10/€1
P_{EZ}/P_{US}	0.85

   - A. 0.95
   - B. 1.62
   - C. 1.07
   - D. 1.38

32. Suppose k, l, and A grow at constant rates given, respectively, by $\bar{g}_k$, $\bar{g}_l$, and $\bar{g}_A$. What is the growth rate of y if $y = Ak^{\alpha}l^{1-\alpha}$, $\alpha > 0$?
    - A. $g_y = \bar{g}_A + \alpha(\bar{g}_k + \bar{g}_l)$
    - B. $g_y = \bar{g}_A + \alpha\bar{g}_k + (1-\alpha)\bar{g}_l$
    - C. $g_y = \bar{g}_A + \bar{g}_k{}^{\alpha} + \bar{g}_l{}^{(1-\alpha)}$
    - D. $g_y = \bar{g}_A \times \alpha\bar{g}_k \times (1-\alpha)\bar{g}_l$

33. As an economist working at the International Monetary Fund, you are given the following data for Japan: observed per capita GDP, relative to the United States, is 0.760, and predicted per capita GDP, given by $y = k^{1/3}$, is 1.06. What is total factor productivity?
    - A. 0.72
    - B. 0.85
    - C. 1.05
    - D. 1.39

34. In Figure, at K_1, the difference between sY and dK is _________, and the difference between Y and sY is _________.



A. output; investment

B. output; consumption

C. net investment; consumption

D. depreciation; gross investment

35. In the Romer model, if Canada and Taiwan have the same proportion of researchers and the same knowledge efficiency parameter but Canada's population is larger, then

A. Canada has a higher per capita output growth rate.

B. Taiwan has a higher per capita output growth rate.

C. each country's per capita output grows at the same rate.

D. Canada has higher per capita income than Taiwan.

36. The labor demand curve slopes downward because

A. wages are inflexible.

B. wages are higher when demand falls.

C. of the diminishing marginal product of labor.

D. of the income effect.

37. In 2015, the Wendy's Junior Cheeseburger Deluxe was on the "Right Price Right Size" menu and was priced at $1.89. If the CPI in 1979 was 72.6 and the CPI in 2015 was 237.0, what is the price of a 2015 cheeseburger in 1979 dollars?

A. $6.17

B. $4.28

C. $0.97

D. $0.58

38. During the 2000s, Americans dramatically increased their personal debt. This is an example of a

A. negative aggregate demand shock.

B. positive aggregate demand shock.

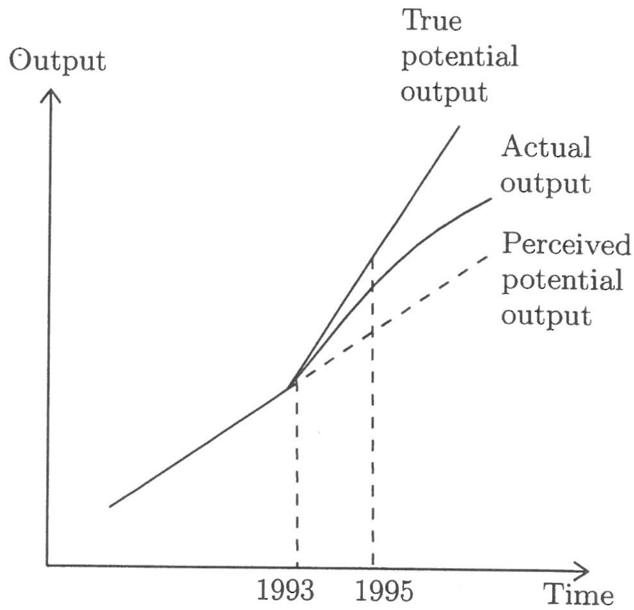
C. negative aggregate supply shock.

D. positive aggregate supply shock.

39. If prices are sticky and there are no aggregate demand shocks, and if the Fed raises the interest rate, __________ and __________.

A. the real interest rate will rise; short-run output will fall
B. the real interest rate will fall; current output will fall
C. the unemployment rate will fall; potential output will fall
D. the unemployment rate will rise; short-run output will rise

40. Suppose you are chair of the Federal Reserve in 1995. You believe that potential output follows the dotted line after 1993, but in actuality, it follows the line denoted "True potential output." The current state of the economy is given by the curve "Actual output." Given the information in the figure, you __________, because you believe the economy is in a __________, but your advice instead __________.



A. lower interest rates; recession; accelerates inflation
B. raise interest rates; boom; accelerates a recession
C. lower interest rates; boom; increases unemployment
D. raise interest rates; recession; accelerates inflation