科目：經濟學　　　　　　系所：金融管理學系　　　　是否使用計算機：否
考試時間：100 分鐘　　　本科原始成績：100 分

Ⅰ、**Multiple Choice Questions (2 points each, total 50 points)**

1. Suppose all individuals are identical, and their monthly demand for Internet access from a certain leading provider can be represented as $p = 5 - (1/2)q$ where p is price in $ per hour and q is hours per month. The firm faces a constant marginal cost of $1. Potential consumer surplus equals

(a) $4.

(b) $8.

(c) $16.

(d) $32.

2. Suppose all individuals are identical, and their monthly demand for Internet access from a certain leading provider can be represented as $p = 5 - (1/2)q$ where p is price in $ per hour and q is hours per month. The firm faces a constant marginal cost of $1. The profit-maximizing two-part tariff yields total revenue of

(a) $24.

(b) $40.

(c) $16.

(d) $32.

3. Suppose a market with a Cournot structure has five firms and a market price elasticity of demand equal to -2. What is a Cournot firm's Lerner Index?

(a) 0.1.

(b) 0.2.

(c) 0.5.

(d) 1.

4. In a Bertrand model, if one firm has a dominant strategy, its best-response function

(a) does not exist.

(b) is identical to its rival.

(c) is a constant.

(d) is to respond to its rival's price increase with a price decrease.

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Figure 1

5. Figure 1 shows the payoff to two airlines, A and B, of serving a particular route. If the two airlines must decide simultaneously, which one of the following statements is true?

(a) Firm A does not have a dominant strategy.

(b) Firm B does not have a dominant strategy.

(c) Neither firm entering is a Nash equilibrium.

(d) The outcome of the game is unpredictable.

6. Figure 1 shows the payoff to two airlines, A and B, of serving a particular route. If the two airlines must decide simultaneously, which one of the following statements is true?

(a) Only firm A will enter the market.

(b) Only firm B will enter the market.

(c) Neither firm entering is a Nash equilibrium.

(d) The outcome of the game is unpredictable.

7. Figure 1 shows the payoff to two airlines, A and B, of serving a particular route. If the two airlines must decide simultaneously, what will happen if the government offers a $30 subsidy to airlines that serve this route?

(a) Both firms will enter profitably.

(b) Firm A will decide not to enter since firm B will.

(c) Firm B is still better off not entering.

(d) Neither firm will have a dominant strategy.

8. Figure 1 shows the payoff to two airlines, A and B, of serving a particular route. If the two airlines must decide simultaneously, what happens if the government imposes a $20 per firm tax on firms that service this route?

(a) Neither firm has a dominant strategy.

(b) Not entering is a dominant strategy for both firms.

(c) Neither firm entering is a Nash equilibrium.
(d) Only firm A will enter.

9. Figure 1 shows the payoff to two airlines, A and B, of serving a particular route. If the two airlines must decide simultaneously, and the government imposes a $20 per firm tax on firms that service this route, which of the following maximizes the firms' joint profits?
(a) Neither firm services the route.
(b) Firm A offers firm B $20 to not enter.
(c) Both firms will service this route.
(d) Firm B offers firm A $30 to not enter.

10. Suppose that in the market for paper, demand is $p = 100 - Q$. The private marginal cost is $MCP = 10 + Q$. Pollution generated during the production process creates external marginal harm equal to $MCe = Q$. What specific tax would result in a competitive market producing the socially optimal quantity of paper?
(a) 40.
(b) 30.
(c) 70.
(d) 50.

11. Suppose that in the market for paper, demand is $p = 100 - Q$. The private marginal cost is $MCP = 10 + Q$. Pollution generated during the production process creates external marginal harm equal to $MCe = Q$. Is social welfare greater under monopoly or under competition?
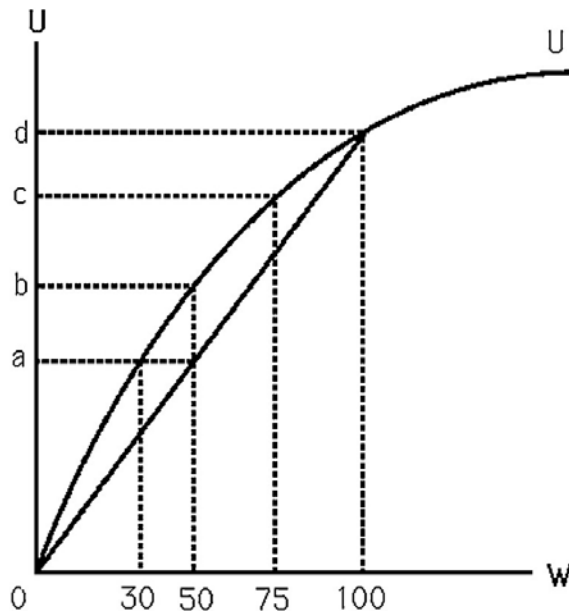(a) monopoly.
(b) competition.

Figure 2

12. Figure 2 shows Bob's utility function. He currently has $100 of wealth, but there is a 50% chance that it could all be stolen. Bob is

(a) risk averse.

(b) risk neutral.

(c) risk loving.

(d) risk premium.

13. Figure 2 shows Bob's utility function. He currently has $100 of wealth, but there is a 50% chance that it could all be stolen. To reduce the chance of theft to zero, Bob is willing to pay

(a) $20.

(b) $50.

(c) $70.

(d) $80.

14. Figure 2 shows Bob's utility function. He currently has $100 of wealth, but there is a 50% chance that it could all be stolen. Over and above the price of fair insurance, what is the risk premium Bob would pay to eliminate the chance of theft?

(a) $0.

(b) $20.

(c) $30.

(d) $50.

15. Figure 2 shows Bob's utility function. He currently has $100 of wealth, but there is a 50% chance that it could all be stolen. Living with this risk gives Bob the same expected utility as if there was no chance of theft and his wealth was
(a) $0.
(b) $20.
(c) $30.
(d) $50.

16. The government buys a building. The owner of the company that builds the building pays her workers. The workers increase their spending. Firms that the workers buy goods from increase their output. This type of effect on spending illustrates
   (a) the wealth effect.
   (b) the crowding-out effect.
   (c) the interest rate effect.
   (d) the multiplier effect.

17. Although the United States has a relatively high level of output per person, its growth rate is rather modest compared to some countries. Which of the following effects would explain this phenomenon ?
   (a) the efficiency wage effect.
   (b) the marginal propensity to consume effect.
   (c) the catch-up effect.
   (d) the crowding-out effect.

18. Which of the following policies would someone who wants the government to follow an active stabilization policy recommend when the economy is experiencing unemployment below the natural rate?
   (a) decrease the interest rate.
   (b) increase the money supply.
   (c) increase taxes.
   (d) increase government expenditures.

19. When a country's central bank conducts open market purchases, its

(a) price level rises and its currency appreciates relative to other currencies in the world.

(b) price level rises and its currency depreciates relative to other currencies in the world.

(c) price level falls and its currency appreciates relative to other currencies in the world.

(d) price level falls and its currency depreciates relative to other currencies in the world.

20. According to misperceptions theory, if a firm thought that inflation was going to be 2 percent and actual inflation was 5 percent, the firm would believe that the relative price of what they produce had

   (a) increased, so they would decrease production.

   (b) increased, so they would increase production.

   (c) decreased, so they would decrease production.

   (d) decreased, so they would increase production.

21. If the investment demand function is $I = \alpha - \beta r$ and the quantity of real money demanded is $\frac{M}{P} = \lambda Y - \theta r$, then fiscal policy is relatively potent in influencing aggregate demand when β is _____ and θ is _____ .

   (a) small, large

   (b) small, small

   (c) large, small

   (d) large, large

22. According to the IS-LM model, when the government increases taxes and government purchases by equal amounts:

   (a) income and consumption are unchanged.

   (b) income and consumption all rise.

   (c) income and consumption all fall.

   (d) income rises and consumption falls.

23. In a small open economy, if the world real interest rate is above the rate at which national saving equals domestic investment, then there will be a trade_____ and _____ net capital outflow.

   (a) surplus; negative

   (b) surplus; positive

   (c) deficit; positive

   (d) deficit; negative

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Use the information in the following table to answer the next question.

Country	Currency	Currency per U.S. Dollar	U.S. Price Index	Country Price Index
Brazil	Real	4.00	100	400
Japan	Yen	125.00	100	25,000
Mexico	Peso	10.00	100	1,000
Thailand	Baht	45.00	100	4,000

24. Which currency is less valuable than predicted by the doctrine of purchasing-power parity?
    (a) real
    (b) peso
    (c) yen
    (d) baht

25. If the reserve ratio is 12.5 percent, banks do not hold excess reserves, and people do not hold currency, then when the Fed purchases $20 million of government bonds, bank reserves
    (a) increase by $20 million and the money supply eventually increases by $250 million.
    (b) increase by $20 million and the money supply eventually increases by $160 million.
    (c) decrease by $20 million and the money supply eventually decreases by $250 million.
    (d) decrease by $20 million and the money supply eventually decreases by $160 million.

Ⅱ、**Problem Solving and Essay Questions (total 50 points)**

1. Marie's utility function is U(x, y) = min{3x+2y, 2x+5y}, where x is the number of units of sugar she consumes and y is the number of units of spice she consumes. She is currently consuming 12 units of sugar and 40 units of spice and she is spending all of her income. The price of spice is $1. In order for this to be her consumption bundle, what must the price of sugar be and what must her income be?　　　　(20 points)

2. Assume the following model of the economy:

$$C = 10 + 0.8(Y - T)$$
$$I = 80 - 10r$$
$$M^s = 100$$
$$T = 100$$
$$G = 120$$
$$\frac{M^d}{P} = 0.5Y - 20r$$

(1) Write the numerical *IS* curve for the economy, showing *Y* as a function of *r* alone. (5 points)

(2) Write the numerical *LM* curve for the economy, assuming *P*=2.0. (5 points)

(3) Solve for the equilibrium values of *Y*, *r*, *I*, private saving and public saving, assuming *P*=1.0. (10 points)

3. Suppose there is a change in government regulations allows banks to start paying interest on checking accounts:

(1) Use a graph to show what this does to the value of money. (5 points)

(2) Use a graph to show what this does to the interest rate and income. (5 points)