

國立高雄大學 109 學年度研究所碩士班招生考試試題

科目：經濟學
 考試時間：100 分鐘

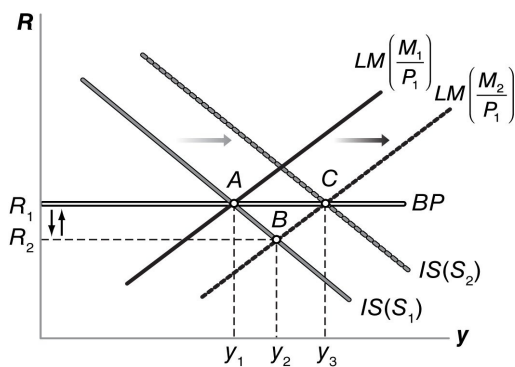
系所：亞太工商管理學系
 本科原始成績：100 分

是否使用計算機：否

一、 單選題，每題 2 分，共 40 分

- If the intersection of the IS and LM schedules lies above the BP curve, then
 - there is a balance of payments surplus.
 - there is a balance of payments deficit.
 - the three curves are in equilibrium.
 - net foreign investment is decreasing.
- If the BP curve sits above the intersection of IS and LM, then
 - the real interest rate and the real income levels are too high resulting in a balance of payments surplus.
 - the nominal interest rate and the real income levels are inconsistent with a balance of payments equilibrium.
 - real money demand is not equal to real income balances.
 - real income balances are greater than real trade balances.
- If the price level decreases
 - the LM curve will shift to the right.
 - the LM curve will shift to the left.
 - the IS curve will shift to the right.
 - the IS curve will shift to the left.

4.



In the figure above, point B represents

- a current account surplus.
- a reduction in inventories.
- a current account deficit.
- a temporary imbalance in the money markets.

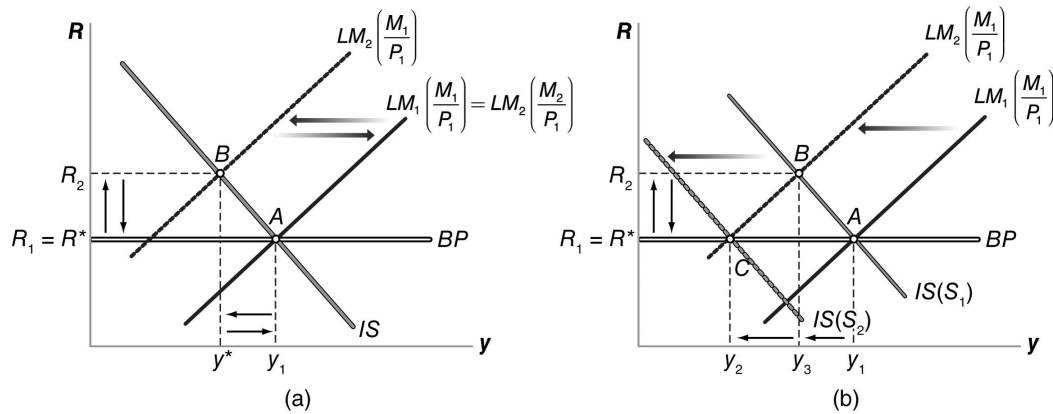
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The difference between panel A and panel B above is the

- A) degree of capital mobility.
 - B) the choice of policy used.
 - C) exchange rate regime.
 - D) degree of price stability.
6. Suppose the price of A is \$20, the price of B is \$10, and that the consumer is currently spending all available income. At the consumer's current consumption basket the marginal utility of A is 8 and the marginal utility of B is 2.
- A) The consumer is currently maximizing utility.
 - B) The consumer could increase utility by consuming more of good A and less of good B .
 - C) The consumer could increase utility by consuming more of good B and less of good A .
 - D) Nothing can be said about the consumer's utility because we do not know the consumer's income or utility function.
7. Suppose that $U(x,y) = \min(3x,y)$. Further suppose that $P_x = \$5$ per unit and $P_y = \$10$ per unit and income is $I = \$105$. For this consumer, the optimal basket to buy would be
- A) $(x,y) = (9,3)$
 - B) $(x,y) = (3,1)$
 - C) $(x,y) = (1,3)$
 - D) $(x,y) = (3,9)$
8. Suppose that $MU_x = 10$ and $MU_y = 20$. Further suppose that the consumer's budget constraint can be expressed as $20x + 10y = 400$. For this consumer, the optimal amount of good x to buy would be
- A) 5.
 - B) 0.
 - C) 20.

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- D) 40.
9. Suppose the consumer's utility function is given by $U(x,y) = xy + y$. The equation for this consumer's demand curve for y when $I < P_x$ is
- A) $y^d = 0$
- B) $y^d = \frac{I}{2P_y}$
- C) $y^d = \frac{I}{P_y}$
- D) $y^d = 1/2$
10. Consider a production function of the form $Q = K^2L^2$. What is the marginal rate of technical substitution of labor for capital at the point where $K = 5$ and $L = 125$?
- A) 5
- B) 25
- C) 50
- D) 0.04
11. In a simultaneous move game with two players,
- A) if neither player has a dominant strategy, we successively eliminate each player's subordinate strategy.
- B) a player chooses among two or more pure strategies according to pre-specified probabilities.
- C) if one player has a dominant strategy and the other doesn't, you can't reach a Nash equilibrium.
- D) if both players have a dominant strategy, these constitute their Nash equilibrium strategies.
12. Backward induction refers to
- A) a procedure for solving a sequential-move game by starting at the beginning of the game tree and finding the optimal decision for the player at each decision point.
- B) a procedure for solving a sequential-move game by starting at the end of the game tree and finding the best response function at each decision point.
- C) a procedure for solving a sequential-move game by starting at the end of the game tree and finding the player's motives for making the decision at each decision point.
- D) a procedure for solving a sequential-move game by starting at the end of the game tree and finding the optimal decision for the player at each decision point.
13. In the following games, all payoffs are listed with the row player's payoffs first and the column player's payoffs second.

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		<i>Player B</i>	
		B1	B2
<i>Player A</i>	A1	7, 3	5, 10
	A2	3, 8	9, 6

In the above game, in the Nash equilibrium in mixed strategies

- A) player B chooses B1 with a 30% probability.
 - B) player B chooses B1 with a 50% probability.
 - C) player A chooses A1 with a 30% probability.
 - D) player A chooses A1 with a 50% probability.
14. Assume that the interest parity condition holds. Also assume that the U.S. interest rate is 8% while the U.K. interest rate is 6%. Given this information, financial markets expect the pound to
- A) depreciate by 14%.
 - B) depreciate by 2%.
 - C) appreciate by 2%.
 - D) appreciate by 6%.
 - E) appreciate by 14%.
15. If government spending and taxes increase by the same amount,
- A) the IS curve does not shift
 - B) the IS curve shift leftward
 - C) the IS curve shifts rightward
 - D) the LM curve shifts downward
16. Suppose there is a simultaneous central bank purchase of bonds and increase in taxes. We know with certainty that this combination of policies must cause
- A) an increase in the interest rate (i).
 - B) a reduction in i .
 - C) an increase in output (Y).
 - D) a reduction in Y .
17. Once people believe the Fed's commitment to keep unemployment at the natural rate, the Fed can reduce unemployment below the natural rate
- A) in both the short run and the long run.
 - B) in both the short run and the long run, but only after changing peoples' expectations.
 - C) in the long run, but not the short run.
 - D) in the short run, but not in the long run.
 - E) none of the above

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18. To solve the "time inconsistency" problem in macro policy, a nation may well have to
- A) lift all restrictions on future policy moves.
 - B) restrict itself in the present from taking certain policy moves in the future.
 - C) present policy moves to the public, for example, in a referendum.
 - D) use the courts to settle policy disputes.
 - E) make the central bank more responsive to the popular will.
19. The Ricardian Equivalence proposition suggests that a tax increase that causes a budget surplus will
- A) cause an increase in output.
 - B) cause no change in output.
 - C) cause a reduction in output.
 - D) a reduction in consumption.
20. Which of the following is an implication of rational expectations theory?
- A) Deviations of output from the natural rate are likely to be serious and long-lived.
 - B) The economy is like a complex machine, that needs to be optimally controlled with the proper policy.
 - C) Macroeconometric models based on past behavior will not be very useful in formulating policy.
 - D) Wages and prices are set almost entirely at random, so it is pointless to try to model their behavior.
 - E) Business cycles almost always result from a shift in aggregate demand.

二、 問答與計算，共 60 分

1. Tom's preferences over cookies (x) and other goods (y) are given by $U(x, y) = xy$ and his income is \$20.
- a) (5分) Find Tom's demand schedule for x when price of y is $P_y = \$1$.
 - b) (6分) Calculate the change in consumer surplus when the price of x increases from \$1 to \$2.
2. Consider a production function is given by $Q = (K^{0.5} + L^{0.5})^2$.
- a) (6分) What is the elasticity of substitution for this production function?
 - b) (5分) Does this production function exhibit increasing, decreasing, or constant returns to scale?
 - c) (5分) Suppose that the production function took the form $Q = (100 + K^{0.5} + L^{0.5})^2$. Does this production function exhibit increasing, decreasing, or constant returns to scale?

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3. Company R and company E are two airlines both fly between London and Malaysia. Their demand curves are given by $Q_E = 500 - 2P_E + P_R$ and $Q_R = 500 - 2P_R + P_E$.

Q_E and Q_R stand for the number of passengers per day for company E and company R, respectively. The marginal cost of each carrier is \$10 per passenger.

- (6分) If company R sets a price of \$100, what is the equation of company R's demand curve and marginal revenue curve? What is company R's profit-maximizing price when company E sets a price of \$100?
- (6分) Derive the equations for Company R's and company E's price reaction curves.
- (6分) What is the Bertrand equilibrium in this market?

4. Consider the following game, where $x > 0$:

		<i>Firm 2</i>	
		High Price	Low Price
<i>Firm 1</i>	High Price	140, 140	20, 160
	Low Price	$90 + x, 90 - x$	50, 50

- (5分) For what values of x do both firms have a dominant strategy? What is the Nash equilibrium in these cases?
- (5分) For what values of x does only one firm have a dominant strategy? What is the Nash equilibrium in these cases?
- (5分) Are there any values of x such that neither firm has a dominant strategy? Ignoring mixed strategies, is there a Nash equilibrium in such cases?