

# 中原大學 102 學年度 碩士班 入學考試

102/3/2 10:00 ~ 11:30 企業管理學系

誠實是我們珍視的美德，  
我們喜愛「拒絕作弊，堅守正直」的你！  
(共 6 頁 第 1 頁)

科目：經濟學

可使用計算機，惟僅限不具可程式及多重記憶者       不可使用計算機

一、選擇題：(每題 2 分，共 40 分)

1. (      ) Suppose Jack can write either 4 books or 8 articles a year, and Jeremy can write 2 books or 5 articles a year. Which of the following is true?
- A. No one has an absolute advantage in writing books.  
B. Jeremy has an absolute advantage in writing articles.  
C. Jeremy has a comparative advantage in writing articles.  
D. Jack has a comparative advantage in writing articles.

2. (      ) Suppose Jack's demand schedule for CD is as follows:

Price ( $P$ )	Quantity demanded ( $Q$ ) (when income ( $I$ ) = 20,000)	Quantity demanded ( $Q$ ) (when income ( $I$ ) = 22,000)
100	50	85
110	40	65
120	30	58

The elasticity of demand is calculated via "midpoint method."

- A. When  $I=20,000$ , the price elasticity of demand as  $P$  increases from 100 to 110 is  $7/5$ .  
B. When  $I=22,000$ , the price elasticity of demand as  $P$  increases from 100 to 110 is  $7/3$ .  
C. When  $P=110$ , the income elasticity of demand as the  $I$  increases from 20,000 to 22,000 is 5.  
D. When  $P=120$ , the income elasticity of demand as the  $I$  increases from 20,000 to 22,000 is 7.

3. (      ) Which of the following would happen if the price of computer increases?

- A. The price of printer would increase.  
B. There would be no impact on the price of printer.  
C. The quantity of printer would decrease.  
D. None of the above.

4. (      ) Suppose the production costs fall, which of the following statements is true?

- A. A shift to the left in the supply curve.  
B. Producer surplus must decrease.  
C. Both consumer surplus and total surplus increase.  
D. None of the above.

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科目：經濟學

5. ( ) Which of the following is true regarding production costs?
- A. The marginal cost is falling when the average cost is below it and rising when the average cost is above it.
  - B. The marginal cost is the cost of production needed for per unit of output.
  - C. The average cost is falling when the marginal cost is below it and rising when the marginal cost is above it.
  - D. All of the above are true.
6. ( ) Which of the following is true regarding the price and production quantity decided by a monopoly?
- A. The corresponding price elasticity of demand is greater than one.
  - B. The corresponding price elasticity of demand is less than one.
  - C. The corresponding price elasticity of demand is greater than zero.
  - D. None of the above.
7. ( ) Regarding diseconomies of scale, which of the following statements is true?
- A. It is used to describe diminishing marginal product.
  - B. It means that the long-run average cost rises as quantity supplied increases.
  - C. It is caused by increasing specialization among workers.
  - D. None of the above.
8. ( ) In a model for labor supply decision (a.k.a., leisure-income decision), when would we have a labor supply curve with negative slope?
- A. When income effect is larger than substitute effect.
  - B. When income effect is less than substitute effect.
  - C. When there is no income effect.
  - D. None of the above.
9. ( ) What would happen when the number of discouraged workers increases?
- A. The number of labor force increases.
  - B. The unemployment rate decreases.
  - C. The number of employment increases.
  - D. None of the above.

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科目：經濟學

10. ( ) Suppose the central bank adjusts the required reserve ratio from 10% to 15%. Besides, banks choose to change their excess reserve ratio from 12% to 6%. Which of the following is true?
- A. There is no effect on money multiplier and money supply.
  - B. Both money multiplier and money supply will increase.
  - C. There is no effect on money multiplier, but money supply will increase.
  - D. There is no effect on money supply, but money multiplier will increase.
11. ( ) Which of the following events would shift the aggregate demand curve to the left?
- A. The price level of foreign country decreases.
  - B. The government expenditure increases.
  - C. In terms of open market operations, the central bank purchases bonds issued by the government.
  - D. The autonomous investment increases.
12. ( ) Assuming that the one-year-ahead forecasted inflation rate was 5% for this year, while the actual inflation is 3.5%.
- A. The forecasting error hurts people who had purchased government bonds because the real interest rate is higher than the expected one.
  - B. The forecasting error hurts the homeowner with a fixed-rate mortgage.
  - C. The forecasting error helps the government that had issued bonds.
  - D. None of the above.
13. ( ) Suppose that a company entirely owned by Taiwanese citizens opens a new factory in New York.
- A. It is a foreign direct investment.
  - B. It is a foreign portfolio investment.
  - C. It makes negative contribution to the investment on U.S. GDP.
  - D. It has no effects on U.S. GDP.
14. ( ) The data of a closed economy is summarized as follows: GDP is \$10 trillion, taxes are \$1.8 trillion, private saving is \$0.6 trillion, public saving is \$0.3 trillion. Which of the following statements is true?
- A. Consumption is \$6.6 trillion and investment is \$0.7 trillion.
  - B. Consumption is \$6.6 trillion and investment is \$0.9 trillion.
  - C. Consumption is \$7.6 trillion and investment is \$0.7 trillion.
  - D. Consumption is \$7.6 trillion and investment is \$0.9 trillion.

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科目：經濟學

15. ( ) Assuming that a company has an investment project that would cost \$1,000,000 today and yield a payoff of \$1,440,000 in two years. Under which of the following interest rates would the firm undertake the project?

- A. 10%.
- B. 13%.
- C. 15%.
- D. 17%.

Questions 16-17 refer to the following statement. Assume that Jeremy face an uncertainty of two states: H (i.e., healthy) and L (i.e., injury), with probabilities:  $\Pr(H) = 4/5$   $\Pr(L) = 1/5$ . The corresponding earnings ( $x$ ) at these two states are:  $x = \$0$  if L occurs,  $x = \$10$  if H occurs. Suppose that the utility function of Jeremy is  $u = x^{0.5}$ . In addition, there is an insurance contract that gives payoff \$8 in both states.

16. ( ) According to the form of Jeremy's utility function, it can be concluded that

- A. Jeremy is risk averse. That is, his gain in utility from gaining \$1 is greater than his loss in utility from losing \$1.
- B. Jeremy is not risk averse. That is, his gain in utility from gaining \$1 is greater than his loss in utility from losing \$1.
- C. Jeremy is risk averse. That is, his gain in utility from gaining \$1 is less than his loss in utility from losing \$1.
- D. Jeremy is not risk averse. That is, his gain in utility from gaining \$1 is less than his loss in utility from losing \$1.

17. ( ) How much would be the most that Jeremy would be willing to pay for the insurance contract?

- A. 1/5
- B. 4/5
- C. 1
- D. 8/5

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Questions 18-20 refer to the following statement. Consider the steady state condition in a simplistic version of Solow's growth model, that is,

$$s f(k) = (\delta + n) k$$

where  $k$  denotes the capital-labor ratio and the production function is  $f(k) = k^{0.5}$ . Besides,  $s$ ,  $\delta$  and  $n$  denote the saving rate, the depreciation rate and the growth rate of labor, respectively. Assume  $n = 0.03$ ,  $s = 0.2$ , and  $\delta = 0.07$ . In addition, the per capita consumption  $c = (1-s)y$ , where  $y = f(k)$ .

18. (      ) Let  $(k^*, y^*, c^*)$  denote the steady state values for  $(k, y, c)$ . Which of the following is true?
- A.  $(k^*, y^*, c^*) = (1, 4, 2.0)$ .
  - B.  $(k^*, y^*, c^*) = (4, 2, 1.6)$ .
  - C.  $(k^*, y^*, c^*) = (4, 8, 2.4)$ .
  - D. None of the above.
19. (      ) How would the steady state  $k^*$  move if the saving rate  $s$  decreases?
- A. Increase.
  - B. Decrease.
  - C. No change.
  - D. None of the above.
20. (      ) Please find out the golden rule saving rate?
- A. 0.05
  - B. 0.1
  - C. 0.4
  - D. 0.5

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科目：經濟學

## 二、問答題：(共 60 分)

### 1. 解釋名詞：

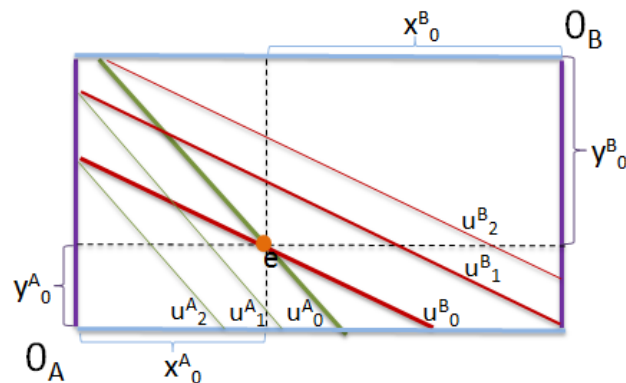
- (1) (3 points) 生產可能曲線
- (2) (3 points) 邊際替代率
- (3) (3 points) 獨占性競爭
- (4) (3 points) 法定準備率
- (5) (3 points) 購買力平價

### 2. The following payoff matrix illustrates a normal-form game played by two companies:

		Company B	
		large budget	small budget
Company A	large budget	(-1,3)	(1,-1)
	small budget	(1,-1)	(-1,1)

- (1) (5 points) Please give a definition for *Nash equilibrium*.
- (2) (10 points) Please find out the *mixed strategy Nash equilibrium* for this game.

### 3. In a pure exchange general equilibrium model described by the following Edgeworth box, there are two agents (A and B) endowed with $(x^A_0, y^A_0)$ and $(x^B_0, y^B_0)$ , respectively. Both two agents are assumed to have linear utility function such that their preference can be described by straight line indifference curve:



- (1) (5 points) Please give a definition for *contract curve* and *core*.
- (2) (5 points) Please find out the *contract curve* and *core* for this model.

### 4. In response to the serious downturn in the global economy these years, most of governments and central banks around the world took various policies to stimulate the economy. Regarding the following events, please analyze their *short-run* and *long-run* impacts on *aggregate output*, *price level*, and *interest rate*.

- (1) (10 points) The government purchases increase temporarily.
- (2) (10 points) Central bank increases the money aggregates.