

考 試 科 目	初等會計學	系 別	財政學系 二年級	考 試 時 間	7 月 8 日(星期五) 第一節
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一、中正公司於民國 100 年 1 月 1 日出售公司債，面額 \$400,000，並採利息法攤銷該應付公司債之折、溢價。此公司債於民國 100 年 1 月 1 日發行，105 年 1 月 1 日到期，中正公司於每年 12 月 31 日支付利息。下列為中正公司第一期公司債攤銷表的相關資料：

期數	利息支付數	利息費用	溢(折)價攤銷	未攤銷溢(折)價	帳面價值
發行				?	\$439,926
1	\$40,000	\$35,194	?	?	?

試依據上述資料，回答下列問題：

- (1) 公司債的票面利率為何？(2%)
- (2) 發行日的市場利率為何？(2%)
- (3) 試做公司債發行分錄。(4%)
- (4) 試做民國 102 年 12 月 31 日之付息分錄。(4%)
- (5) 倘中正公司原採直線法攤銷公司債發行之折、溢價，試做民國 103 年 12 月 31 日之付息分錄。(4%)

二、果夫公司民國 100 年 12 月 31 日之股東權益內容如下：

10%累積特別股，面值\$100 (核准 50,000 股，發行在外 15,000 股)	\$ 1,500,000
普通股，面值\$10 (核准 100,000 股，發行 50,000 股，庫藏股 2,000 股)	500,000
特別股溢價	400,000
普通股溢價	360,000
保留盈餘	300,000
合計	\$ 3,060,000
減：庫藏股 (2,000 股，按成本計)	(32,000)
股東權益總計	\$ 3,028,000

已知特別股的收回價格為\$125，並積欠二年的股利而未予發放。試計算特別股與普通股的每股帳面價值。(10%)

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三、道藩公司民國98年至100年帳列稅前淨利分別為\$300,000、\$600,000及\$800,000。100年底經會計師查帳結果發現下列事項：

- (1) 應收帳款原採銷貨百分比法提列壞帳，三年來壞帳之提列金額無誤，唯99年中沖銷某客戶帳款\$13,000時，借：壞帳費用；貸：應收帳款。
  - (2) 存貨採永續盤存制，98、99、100年底各有\$5,000、\$13,000及\$10,000起運點交貨之在途商品，未計入期末存貨，應付帳款與進貨亦未入帳。
  - (3) 99年7月1日購入某項設備時，其安裝費\$10,000誤記為費用，該設備估計可用五年，採直線法提列折舊（假設該設備殘值為\$0）。
  - (4) 年底之預收貨款均未予調整，98年至100年各年底應有之預收貨款分別為\$30,000、\$20,000及\$25,000。
  - (5) 公司帳上漏列應收租金，98年至100年各年底應有之應收租金分別為\$6,000、\$12,000及\$8,000。
- 試作：

- (一) 計算道藩公司民國98年、99年、100年之正確稅前淨利（18%）。
- (二) 假設道藩公司民國100年已結帳，試為以上錯誤作一合併之更正分錄（不考慮所得稅）（8%）。

四、志希公司民國99年底資產負債表資料如下：

現金	\$ xxx	應付帳款	\$1,650,000
應收帳款	1,180,000	應付公司債	1,100,000
存貨	767,000		
土地	330,000	普通股股本	1,980,000
機器設備	2,310,000	保留盈餘	484,000
減：累計折舊	(451,000)		
專利權	440,000		
	<u>\$5,214,000</u>		<u>\$5,214,000</u>

又民國100年之交易資料如下：

- (1) 淨利 \$506,000
- (2) 民國100年期末現金餘額 \$1,012,000
- (3) 機器設備之折舊 \$132,000
- (4) 機器設備（成本 \$220,000，累計折舊 \$88,000）以 \$110,000 出售，且另支付現金 \$220,000 購買機器設備
- (5) 專利權攤銷 \$55,000
- (6) 應收帳款及存貨分別增加 \$165,000 及 \$154,000
- (7) 應付帳款增加 \$143,000

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- (8) 發行應付公司債 \$550,000
- (9) 購買長期股票投資 \$176,000
- (10) 以\$109,000之成本購買庫藏股
- (11) 宣告並發放現金股利 \$320,000

試以上述資料計算民國99年底志希公司帳上之現金餘額(2%)，並以直接法編製志希公司民國100年之現金流量表(20%)。

五、風零公司民國100年8月底現金帳面餘額 \$834,000，銀行對帳單餘額 \$827,206。在檢查相關帳冊與資料後發現下列事項：

- (1) 公司於8月31日存入由第一銀行付款的支票一張 \$77,600，銀行尚未入帳。
- (2) 代收支票款 \$39,000，銀行於8月24日入帳，而風零公司尚未入帳。
- (3) 代收票據手續費 \$34，銀行於當日扣付，但公司未入帳。
- (4) 存款利息 \$3,600，銀行於8月31日入帳，公司未入帳。
- (5) 公司已開立但未兌現支票計有：

#331 \$10,000  
 #332 \$ 6,710  
 #347 \$11,530

試編製風零公司民國100年8月底之銀行調節表(16%)，及作成必要之調整分錄(4%)。

六、莊敬公司民國100年全年流通在外普通股10,000股，當年度之淨利為 \$290,000。莊敬公司另有流通在外之特別股2,000股，每股可優先發放現金股利 \$50。

學思公司民國100年之淨利為 \$100,000，當年年初流通在外普通股12,000股，直至11月1日該日增資發行3,000股。試計算：

- (1) 學思公司民國100年度之每股盈餘(3%)
- (2) 莊敬公司民國100年度之每股盈餘(3%)

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## I. 單選題 (每題 3 分)

1. Suppose that the saving function is:  $S = \$500 + 0.2YD$  where  $YD$  is disposable income. What is the tax multiplier?  
(A) 0.8 (B) 0.2 (C) 0.25 (D) 4
2. John is a college student who is not working or looking for a job. John will be counted as  
(A) unemployed and in the labor force. (B) unemployed, but not in the labor force. (C) in the labor force, but not unemployed. (D) neither in the labor force nor unemployed.
3. When the NT dollar appreciates relative to the US dollar, then:  
(A) US goods become more expensive here. (B) Taiwan's goods become more expensive in US. (C) we tend to buy more from the US since we have a weak currency. (D) we sell more goods to the US.
4. Last year real GDP in the imaginary nation of Oceania was 561.0 billion and the population was 2.2 million. The year before, real GDP was 500.0 billion and the population was 2.0 million. What was the growth rate of real GDP per person during the year?  
(A) 8 percent. (B) 6 percent. (C) 4 percent. (D) 2 percent.
5. France and England both produce wine and cloth under conditions of constant opportunity costs. France can produce 150 units of wine if it produces no cloth, and 100 units of cloth if it produces no wine. England can produce 50 units of wine if it produces no cloth, and 100 units of cloth if it produces no wine. Using this information, we can conclude that:  
(A) France has a comparative advantage in cloth production. (B) England has a comparative advantage in cloth production. (C) France has a comparative advantage in both goods. (D) mutually beneficial international trade is not possible.
6. A cut in taxes \_\_\_\_\_, therefore shifting the aggregate demand curve to the \_\_\_\_\_.  
(A) decreases government transfers and consumption; right. (B) decreases the marginal propensity to save and consumption; left. (C) increases disposable income and consumption; right. (D) increases corporate profits and investment; left.
7. Which of the following would NOT be included in this year's GDP?  
(A) the production of a television show (B) the purchase of a new work truck (C) the hiring of a new police officer (D) your purchase of your neighbor's 2001 Toyota.



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8. Stagflation is a combination of:  
(A) increasing unemployment and decreasing inflation. (B). decreasing unemployment and decreasing inflation. (C). increasing unemployment and increasing inflation. (D). decreasing unemployment and increasing inflation.
9. The Cozy Chair Company believes it can sell 200 chairs at \$200 per chair, or 300 chairs at \$150 per chair. What is the most likely estimate for the price elasticity of demand for Cozy Chairs?  
(A). 2.5. (B). 1.4. (C). 0.7. (D). 0.5.
10. Good X and Good Y are substitutes. Holding all other things constant, this means that when the price of Good X increases, the:  
(A) demand for Good X will increase. (B). demand for Good Y will increase. (C). demands for both Good X and Good Y will both increase. (D). demand for Good Y will decrease.
11. The principle of \_\_\_\_\_ marginal rate of substitution states that the more chocolate Susan consumes in proportion to coffee, the \_\_\_\_\_ coffee she is willing to substitute for another piece of chocolate.  
(A) diminishing; less. (B). diminishing; more. (C). increasing; less. (D). increasing; more.
12. Mary notices that the marginal utility of working with a tutor seems to fall with each hour the tutor helps her study. If Mary keeps the tutor until her grade actually begins to fall, her marginal utility will be:  
(A) positive, but rising more slowly. (B). zero. (C). negative. (D). immeasurable.
13. The following are four differences between monopoly and perfect competition. Which of these is *incorrect*?  
(A) A monopolist has market power while a perfect competitor does not. (B) Unlike a perfectly competitive firm, a monopoly can make positive economic profits in the long run. (C) A perfectly competitive firm may still make positive economic profits in the short run. (D) Monopoly profits can continue to exist in the long run, because the monopoly produces more and charges a higher price than a comparable perfectly competitive industry.
14. Sara wants to practice price discrimination in her bakery. Which of the following techniques should Sara *not* use?  
(A) discounts for people who buy more bread. (B). higher prices for people who buy on the day bread is baked and lower prices for people who place advance orders. (C). creating an annual fee for customers who want to shop at a discount in her store. (D). charging all consumers the same price for freshly baked goods.

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15. The demand curve and its slope for a monopoly is:

(A) above the  $MR$  curve and twice the  $MR$  curve. (B). above the  $MR$  curve and equal to one. (C). equal to the entire  $MR$  curve. (D). above the  $MR$  curve and one half of the  $MR$  curve.

16. A natural monopoly exists whenever a single firm:

(A) is owned and operated by the federal or local government. (B). is investor-owned but has been granted the exclusive right by the government to operate in a market. (C). experiences economies of scale over the entire range of production that is relevant to its market. (D). has gained control over a strategic input of an important production process.

## II. 分析及演算題

1. (25%) In a market with demand  $p^d(x) = a - b * x$  and supply  $x^s(p) = c + d * p$ ,

- Solve for the market equilibrium and discuss plausible ranges for parameters  $a$ ,  $b$ ,  $c$ , and  $d$ .
- At the current market equilibrium, compute the price elasticity of demand for commodity  $x$ .
- Provide the price level for which a government-installed price ceiling will be effective.
- Continued from (c), demonstrate how much excess demand or excess supply will be induced by this price ceiling?
- Suppose that commodity  $y$  is a complement for commodity  $x$ , in a diagram, illustrate the effect upon the market equilibrium specified in (a) when the market price for  $y$  falls significantly.

## 2. (27%) Solving a simple Keynesian Model

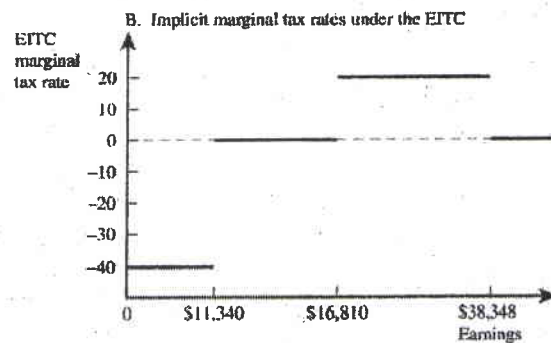
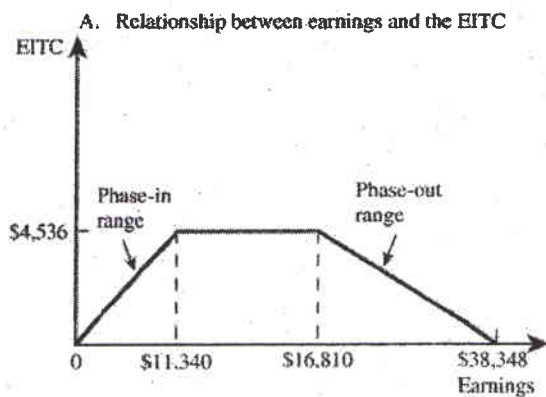
Consider a closed economy described by the following equations:  $Y = C + I + G$  where  $C = 80 + 0.6YD$ . Currently,  $I = \$250$  bn (billion),  $G = \$150$  bn and assuming that the tax rate equals 0 for now.

- (5%) Decide the autonomous consumption, the induced consumption and MPC (marginal propensity to consume), the saving function and MPS (marginal propensity to save).
- (6%) What will be the equilibrium level of National Income?
- (6%) Illustrate by appropriate diagrams, when the aggregate planned expenditure is at the level of 1500 bn, what adjustment of the economy will take place?
- (10%) Suppose that the economists in this country have come to a consensus on the existence of a recessionary gap which is of the magnitude of 200 bn. To resort to a fiscal stimulus policy, Minister of Finance proposes to increase government spending by 160 bn, completely financed by an increase in income tax. Would this fiscal policy curb the recessionary gap, over-stimulate the economy, or under-stimulate the economy?

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<p>1. 已知 <math>y = \ln(e^x + 1)</math>，試求 <math>\frac{dy}{dx}</math> (10 分)</p> <p>2. 已知 <math>y = 5^{3x} \cdot 6^{7x}</math>，試求 <math>\frac{dy}{dx}</math> (15 分)</p> <p>3. 已知 <math>x^3 - x^2 + y^4 + 7 = 0</math>，試求 <math>\frac{dy}{dx}</math> (10 分)</p> <p>4. 試求 <math>\int_{-2}^2 \frac{y+1}{\sqrt{y^2+2y+2}} dy</math> (10 分)</p> <p>5. 試求 <math>\int_0^{\frac{\pi}{2}} x^2 \cdot \sin x dx</math> (10 分)</p> <p>6. 試求 <math>\int_1^3 \int_y^{y^2-1} (y-1) dx dy</math> (10 分)</p> <p>7. 已知 <math>f(x) = \frac{1}{1+x^2}</math>，試求 <math>x</math> 在 0 時的泰勒(Taylor)二階展開式 (15 分)</p> <p>8. 假設反需求函數為 <math>p = \frac{50}{x+5}</math>，反供給曲線為 <math>p = \frac{x}{10} + \frac{9}{2}</math>，則市場均衡時，消費者剩餘和生產者剩餘為何 (20 分)</p>					
備	註 試題隨卷繳交				

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1) (18%) In the 2008 Presidential Campaign, President Ma proposed to implement an Earned Income Tax Credit (EITC; 工作所得租稅扣抵) Program in Taiwan. To evaluate the effect of this proposal, let's consider the EITC Program in the U.S. as described in the figure below. Suppose an individual earns a fixed rate of \$8 per hour. Taking into account the EITC and ignoring aspects other aspects of the tax and transfer systems:



- a) (5%) How much do his or her earnings increase when the labor supply increases from 0 to 1,000 hours per year?
- b) (6%) How much do his or her earnings increase when the labor supply increases from 1,000 to 1,500 hours per year?
- c) (7%) How much do his or her earnings increase when the labor supply increases from 1,500 to 2,300 hours per year?

2) (18%) Suppose that Hannah's utility function is  $U_H = 3T + 4C$  and that Jose's utility function is  $U_J = 4T + 3C$ , where  $T$  is pounds of tea per year and  $C$  is pounds of coffee per year. Suppose there are fixed amounts of 28 pounds of coffee per year and 21 pounds of tea per year. Suppose also that the initial allocation is 15 pounds of coffee to Hannah (leaving 13 pounds to Jose) and 10 pounds of tea to Hannah (leaving 11 pounds of tea to Jose).

- a) (3%) What are the marginal rates of substitution of coffee for tea for Hannah and Jose?
- b) (3%) Draw an Edgeworth Box showing the initial allocation of these two goods. Moreover, for each individual, draw a set of three indifference curves and use an arrow to indicate the direction of utility increase.
- c) (3%) Is the initial allocation of coffee and tea Pareto efficient? Explain your answer.
- d) (3%) Consider an allocation that Hannah consumes all the coffee and tea while Jose consumes none



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of these two goods. Is this allocation Pareto efficient? Explain your answer.

- e) (6%) Derive the contract curve on the Edgeworth Box.
- 3) (14%) 請簡單回答以下關於兩稅合一問題:
- a) (2%) 所謂之兩稅合一為哪兩稅?
  - b) (2%) 兩稅合一有哪些方法?
  - c) (4%) 台灣公司組織之兩稅合一的作法為何? 其概念為何?
  - d) (2%) 何謂未分配盈餘稅?
  - e) (2%) 為何要加徵未分配盈餘稅?
  - f) (2%) 目前未分配盈餘稅之稅率為何?
- 4) (18%) Suppose there is no tax. Draw a figure of a two-period life-cycle model to explain the utility maximizing decision of a borrower. In your figure, make sure that you have the axes clearly indexed. Use the horizontal axis to denote present consumption and present income,  $C_0$  and  $I_0$ ; use the vertical axis to denote future consumption and future income,  $C_1$  and  $I_1$ . Let  $C_0, I_0, C_1$ , and  $I_1 > 0$ . Suppose an individual can borrow or lend at interest rate  $r$ .
- a) (4%) In your figure, show the initial endowment point and the utility maximizing point. What's the slope of the intertemporal budget constraint?
  - b) (7%) Consider a tax on the interest revenues with deductible interest payments. How does this change the slope of the constraint in a)? How does this change a borrower's saving decision? (Hint: compare income and substitution effects.) Will a borrower's utility level increase or decrease? Use a figure to illustrate your point.
  - c) (7%) Consider a tax on the interest revenues with non-deductible interest payments. How does this change the slope of the constraint in a)? Will a borrower change his or her saving decision? Use a figure to illustrate your point.
- 5) (18%) Ruth has a fixed income of  $I$  dollars, which she spends on only two commodities, barley and corn, with prices  $p_b$  and  $p_c$  respectively. Suppose now the government levies a tax at a percentage rate of  $t_b$  on barley so the barley price that Ruth faces becomes  $(1 + t_b)p_b$ . Use utility maximization (indifference) graphic analysis to answer the following questions. In your figures, use the horizontal axis to denote the quantity of barley and the vertical axis to denote the quantity of corn.
- a) (6%) Draw a figure to show that the barley tax makes Ruth worse off by an amount actually exceeds the revenues that the government generates.