所別：財務金融學系碩士班 甲組 科目：財務管理

1. Ann Schultz receives an annuity of $500, payable once every six months. The annuity stretches out over 3 years. The first payment occurs six months from today. The **annual interest rate** is 6 percent. What is the net present value of this annuity today? (10%)

2. Some recent financial statements for Elton Corp. follow.

Elton Corp
2006 Balance Sheet

Current assets		Current liabilities	
Cash	$ 800	Accounts payable	$ 1,200
Accounts receivable	2,400	Notes payable	800
Inventory	4,000	Total	$ 2,000
Total	$ 7,200	Long-term debt	$ 4,000
Fixed assets		Owner's equity	
Net plant and equipment	$12,800	Common stock and paid-in surplus	$ 8,000
		Retained earnings	6,000
		Total	$14,000
Total assets	$20,000	Total	$20,000

Elton Corp.
2006 Income Statement

Sales	$30,000
Costs of goods sold	16,000
Depreciation	1,500
Earnings before interest and taxes	$12,500
Interest expense	500
Taxable income	$12,000
Taxes (30%)	3,600
Net income	$8,400

(1) Find the following financial ratios for Elton Corp. (12%)

a. Current ratio b. Quick ratio c. Equity multiplier d. Inventory turnover

e. Total debt ratio f. Debt-equity ratio

(2) Construct the Du Pont identity. (6%)

注意：背面有試題

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(3) Elton has 2,000 shares of common stock outstanding, and the market price for a share of stock at the end of 2006 was $80. What is the price-earnings ratio? What is the market-to-book ratio at the end of 2006? (6%)

3. Your company is evaluating two different computer-based order handle system. The system I costs $180,000, has a three-year life, and has pretax operating costs of $30,000 per year. The system II costs $300,000, has a five-year life, and has pretax operating costs of $20,000 per year. For both systems, use straight-line depreciation to zero over the project life and assume a salvage vale of $10,000. If your company has a tax rate of 30%, and a beta of 0.8. The risk-free rate is 4%, and the market risk premium is 10 %. The risks of both projects are similar to the averaged risk of the company. Which project do you prefer? Why? (16%)

4 . The net income of company A, which has 10,000 outstanding shares and a 100-percent payout policy, is $32,000. The expected value of the firm one year hence is $1,545,600. The appropriate discount rate for company A is 12 percent.

a. What is the value of the firm?(6%)

b. What is the ex-dividend price of company A's stock if the board follows its current policy?(6%)

c. At the dividend declaration meeting, several board members claimed that the dividend is too meager and is probably depressing company A's price. They proposed that company A sell enough new shares to finance a $4.25 dividend.

   i. Comment on the claim that the low dividend is depressing the stock price. Support your argument with calculations.

   ii. If the proposal is adopted, at what price will the new shares sell and how many will be sold?(8%)

5. A $1,000 par convertible debenture has a conversion price for common stock of $180 per share. With the common stock selling at $60, what is the conversion value of the bond?(10%)

6 (a) True or false? The Modigliani-Miller model of cost of equity is equivalent to the OPM (Option Pricing Model) definition of cost of equity for an all-equity firm. Explain.(10%)

(b) If we assume that $N(d_1) = 1$ in the OPM, what does this imply about $\partial S/\partial V$? About the firm's capital structure? (10%)