考 試 科 目財務管理	系	別	金融學系/金融管理組	考	試時	間	2	月	23	日分	第	3	食
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- I. Explain the following terms briefly (24 points, each 4 points)
- 1. Goodwill.
- 2. The inventory turnover ratio.
- 3. TIPS.
- 4. Fundamental analyst.
- 5. The Modified Accelerated Cost Recovery System (MACRS).
- 6. Cyclical industries.
 - II. Computational Questions (36 points, each 6 points)
- 1. Net Corp. has an ROE of 30% and would like to see earnings grow at a 18% annual rate. What percent of earnings can they afford to pay out as dividends?
- 2. What is the amount of the annual coupon payment for a bond that has six years until maturity, sells for \$1,050, and has a yield to maturity of 9.37%?
- 3. Which projects should be undertaken if the risk-free rate is 6% and the market risk premium is 9%?

Project	Beta	IRR
A	2.0	25%
В	1.6	22%
C	1.1	15%
D	0.8	11%

- 4. Assume the corporate tax rate is 30%. The firm has no debt in its capital structure. It is valued at \$100 million. What would be the value of the firm if it issued \$50 in perpetual debt and repurchased the equity?
- 5. The Granite Paving Company has a debt equity ratio of 1.5. The before-tax cost of debt is 11% and the unlevered equity is 14%. Calculate the weighted average cost of capital for the firm if the tax rate is 33%.
- 6. Given the following data:

	Firm A	Firm B	Firm AB (after merger of A and B)
Market Price per share	\$20	\$10	
Number of shares	1,000,000	500,000	
Market value of the firm	\$20 million	\$5 million	\$30 million

If Firm A offers 250,000 shares for B's shareholders, calculate the true cost of merger.

國立政治大學 102 學年度碩士班招生考試試題

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- III. Short Answer Questions (12 points, each 6 points)
- 1. Define DOL, discuss what affects it and how to interpret it.
- 2. Explain why an insurance company is willing to sell life insurance to individuals, but will be more reluctant to issue policies insuring against earthquake damage to residents living along fault lines. Why don't insurance companies simply charge the residents a premium that reflects the actuarial probability of damage from earthquakes?
- IV. Questions (28 points)
- 1. In each of the following cases, which of the two companies is likely to be characterized by the higher ratio? Explain the reason briefly.
- a. Debt-equity ratio: a shipping company or a computer software company. (3 points)
- b. Payout ratio: United Foods Inc. or Computer Graphics Inc. (3 points)
- c. Average collection period: Regional Electric Power Company or Z-Mart Discount Outlets. (3 points)
- d. Price-earnings multiple: Basic Sludge Company or Fledgling Electronics. (3 points)
- 2. Executive Red Wine has issue debt with a market value of \$100 million and has outstanding 15 million shares with a market price of \$10 a share. It now announces that it intends to issue a further \$60 million of debt and to use the proceeds to buy back common stock. Debtholders, seeing the extra risk, mark the value of the existing debt down to \$70 million.
 - a. How is the market price of the stock affected by the announcement? (5 points)
 - b. How many shares can the company buy back with the \$60 million of new debt that it issues? (2 points)
 - c. What is the market value of the firm (equity plus debt) after the change in capital structure? (3 points)
 - d. What is the debt ratio after the change in structure? (2 points)
 - e. Who (if anyone) gains or loses? (4 points)