

考 試 科 目	財務管理 4/22B	所 別	金融學系/財務工程組	考 試 時 間	2 月 28 日(六) 第一節
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I. Explain the following terms briefly (24 points, each 4 points)

1. Majority voting
2. Additional paid-in capital
3. Floating-rate preferred stock
4. CAPM
5. Unique risks
6. Cyclical stocks

II. Computational Question (30 points, each 6 points)

1. Company X has 2 million shares of common stock outstanding at a book value of \$2.00 per share. The stock trades for \$3.00 per share. It also has \$2 million in face value of debt that trades at 90% of par. What is its ratio of debt to value for WACC purposes?
2. What would you estimate to be the required rate of return for equity investors if a stock sells for \$40.00 and will pay a \$4.40 dividend that is expected to grow at a constant rate of 5%?
3. What proportion of a firm is equity financed if the WACC is 14%, the after-tax cost of debt is 7.0%, the tax rate is 35%, and the required return on equity is 18%?
4. An investor was expecting an 18% return on her portfolio with beta of 1.25 before the market risk premium decreased from 8 to 6%. Based on this change, what return will now be expected on the portfolio?
5. What return should be expected from investing in the market portfolio that is expected to yield 18% if the investment includes all of the investor's funds plus 30% of additional funds borrowed at the risk-free rate of 6%?

III. Short answer questions (12 points, each 6 points)

1. In addition to the tax shield offered by the federal government, debt has a lower required rate of return than equity. Why is it not common to see firms that have much larger debt components in their capital structure?
2. Why does diversification reduce risk?

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## IV. Questions (34 points)

1. Calculate the nominal return (4 points), real return (4 points), and risk premium (5 points) for the following common stock investment:

Purchase price	\$60.00 per share
Dividend	\$3.50 per year
Sales price	\$73.00 per share
Treasury bill yield	8.5%
Inflation rate	7.5%

2. Show the breakdown of stock price between a firm's assets that are already in place (5 points) and its present value of growth opportunities (5 points), assuming: next year's expected earnings equal \$5.00, 13% required rate of return, 17% return on equity, and 45% plowback ratio.

3. a. Calculate the net present value of the following project for discount rates of 0, 50, and 100% (6 points):

$C_0$		$C_1$		$C_2$
\$ (6,750.00)	+	\$ 4,500.00	+	\$18,000.00

b. What is the IRR of the project (5 points)?

Discount rate-1	0.00%
Discount rate-2	50.00%
Discount rate-3	100.00%

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- 一、作答於試題上者，不予計分。  
二、試題請隨卷繳交。