

考試科目	財務管理	系所別	金融學系/金融管理組	考試時間	2月2日(五) 第二節
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I. Explain the following term briefly (24 points, each 4 points)

1. Tax shield by debt financing
2. A stock's beta
3. Aggressive stocks
4. Cyclical industries
5. Value stocks
6. Real rates of return

II. Computational Questions (30 points, each 5 points)

1. A firm has 12,000 shares of common stock outstanding with a book value of \$20 per share and a market value of \$39. There are 5,000 shares of preferred stock with a book value of \$22 and a market value of \$26. There is a \$400,000 face value bond issue outstanding that is selling at 87% of par. What weight should be placed on the preferred stock when computing the firm's WACC?

2. What is the minimum cash flow that could be received at the end of year 3 to make the following project "acceptable"? Initial cost = \$100,000; cash flows at end of years 1 and 2 = \$35,000; opportunity cost of capital = 10%.

3. A company owns a tract of timber that will keep growing for a number of years. It calculates that the timber's value less the cost of harvesting is currently \$50,000 and that this figure will grow by 10% in the next year and by 5% in the following year. If the cost of capital is 8%, when should the company harvest the timber?

4. If a 4-year bond with a 7% coupon and a 10% yield to maturity is currently worth \$904.90, how much will it be worth 1 year from now if interest rates are constant?

5. What would you estimate as the cost of equity if a stock sells for \$40, pays a \$4.25 dividend, and is expected to grow at a constant rate of 5%?

6. What is the standard deviation of the market portfolio if the standard deviation of a well-diversified portfolio with a beta of 1.25 equals 20%?

III. Short Answer Questions (12 points, each 6 points)

1. Compare straight-line depreciation with accelerated depreciation briefly. Why is accelerated depreciation often favored for the corporation's set of tax books?

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2. Explain financial leverage and operating leverage briefly. Why a firm with high financial leverage or high operating leverage is considered riskier?

IV. Questions (34 points)

1. BCCI has outstanding 1 million shares with a total market value of \$20 million. The firm expected to pay \$1 million of dividend next year, and thereafter the amount paid out is expected to grow 5% a year perpetuity. Thus the expected dividend is \$1.05 million in year 2, \$1.105 million in year 3, and so on. However, the company has heard that the value of a share depends on the flow of dividends, and therefore it announces that next year's dividend will be increase to \$2 million and that the extra cash will be raised immediately by an issue of shares. After that, the total amount paid out each year will be as previously forecasted, that is, \$1.05 million in year 2 and increasing by 5% in each subsequent year.

- At what price will the new shares be issued in year 1? (6 points)
- How many shares will the firm need to issue? (4 points)
- What will be the expected dividend payments on these new shares, and what therefore will be paid to the old shareholders after year 1? (6 points)
- What is the present value of the cash flows to the old shareholders? (6 points)

2. The Granite Paving Company plan to have a debt equity ratio of 1.5. The before-tax cost of debt is 11% and the unlevered equity is 14%. (12 points, each 6 points)

- Calculate the weighted average cost of capital for the firm when its debt equity ratio moves from 0 to 1.5, given the tax rate is 30%.
- Currently it is an unlevered (all equity) firm with a beta of 1.1. What will be the beta of the firm if it goes through the capital restructuring process and attains the target debt-to-equity ratio, 1.5? Assume a tax rate of 30%.

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- 作答於試題上者，不予計分。
- 試題請隨卷繳交。