## 國立政治大學 111 學年度 碩士暨碩士在職專班 招生考試試題

第 頁,共2 頁

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10日(四)第三節

- Explain the following term briefly (24 points, 4 points for each)
- 1. Asset's liquidity
- 2. The acid-test ratio
- 3. The IRR
- 4. Sensitivity analysis
- 5. Defensive stocks
- 6. MM's proposition II
- II. Computational Questions (25 points, 5 points for each)
- 1. Johnson's Nursery has net income of \$42,500, depreciation expense of \$1,800, interest expense of \$900, taxes of \$1,600, additions to net working capital of \$2,300, and capital expenditures of \$11,700. What is the amount of the free cash flow?
- 2. XYZ Corp. has an operating profit margin of 7%, a debt burden of .8, and has financed two-thirds of its assets through equity. What asset turnover ratio is necessary to achieve an ROE of 18%?
- 3. Suppose that the total value of dividends to be paid by companies in the Namian stock market index is \$100 billion. Investors expect dividends to grow over the long term by 5% annually, and they require a 10% return. Now a collapse in the economy leads investors to revise their growth estimate down to 4%. By how much should market values change?
- 4. Suzi owns 100 shares of AB stock. She expects to receive a \$238 in dividends next year. Investors expect the stock to sell for \$46 a share one year from now. What is the intrinsic value of this stock if the dividend payout ratio is 40% and the discount rate is 13.5%?
- 5. What is the expected rate of return to equity holders if the firm has a tax rate of 21%, the interest rate on debt is 10%, WACC is 15%, and the debt-asset ratio is 60%?
- III. Short answer questions (10 points)
- 1. What does the existence of an upward-sloping yield curve suggest?
- 2. What is the purpose of a floating-rate bond?

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## IV. Questions (41 points)

 Archmedes Levers is financed by a mixture of debt and equity. There are no taxes. You have the following information about its cost of capital:

$$r_E = (a)$$
;  $r_D = 12\%$ ;  $r_A = (b)$ ;

$$\beta_E = 1.5$$
;  $\beta_D = (c)$ ;  $\beta_A = (d)$ ;

$$r_f = 10\%$$
;  $r_m = 18\%$ ;  $D/E = 0.5$ 

Can you fill in blanks (a) to (d)? (6 points for each)

- 2. Suppose that the S&P 500, with a beta of 1.0, has an expected return of 10% and T-bills provide a risk-free return of 4%.
  - (a) How would you construct a portfolio from those two assets with an expected return of 8%? Specifically, what will be the weights in the S&P 500 versus T-bills? (6 points)
  - (b) How would you construct a portfolio from these two assets with a beta 0.4? (6 points)
  - (c) Find the risk premiums of the portfolios in parts (a) and (b), and show that they are proportional to their betas. (5 points)

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