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國立中央大學94學年度碩士班考試入學試題卷 共 1 頁 第 1 頁
所別：財務金融學系碩士班 甲組 科目：財務管理

1. A firm invests I dollars in a project at time 0. The project lasts T years and has no salvage value. Assume the firm uses the straight-line depreciation method and pays no taxes. Derive the condition under which the accounting rates of return of this project are constant. (15%)
2. Following Question 1, show that the accounting rates of return equal the project's internal rate of return. (15%)
3. "The size effect does not invalidate the efficient market hypothesis." Discuss. (20%)
4. Executive Chalk is financed solely by common stock and has outstanding 25 million shares with a market price of \$10 a share. It now announces that it intends to issue \$160 million of debt and to use proceeds to buy back common stock.
 - (a) How is the market price of the stock affected by the announcement?
 - (b) How many shares can the company buy back with the \$160 million of new debt that it issues?
 - (c) What is the market value of the firm (equity plus debt) after the change in the capital structure?
 - (d) What is the debt ratio after the change in capital structure?
 - (e) Who (if any) gains or losses? (15%)
5. Fly-By-Night Couriers is analyzing the possible acquisition of Flash-in-the-Pan Restaurants. Neither firm has debt. The forecasts of Fly-By-Night show that the purchase would increase its annual after-tax cash flow by \$600,000 indefinitely. The current market value of Flash-in-the-Pan is \$20 million. The current market value of Fly-By-Night is \$35 million. The appropriate discount rate for the incremental cash flow is 8%.
 - (a) What is the synergy from the merger?
 - (b) What is the value of Flash-in-the-Pan to Fly-By-Night?
 - Fly-By-Night is trying to decide whether it should offer 25% of its stock or \$15 million in cash to Flash-in-the-Pan.
 - (c) What is the cost to Fly-By-Night of each alternative?
 - (d) What is the NPV to Fly-By-Night of each alternative?
 - (e) Which alternative should Fly-By-Night use? (20%)
6. True or false for convertible bonds? Please briefly state the reasons for choosing "true" or "false".
 - (a) The higher the conversion ratio, the more valuable the convertible.
 - (b) The higher the conversion price, the more valuable the convertible.
 - (c) If a company splits its stock, the conversion price is increased.
 - (d) Other things equal, if dividend payments rise, bond holders are more likely to convert before maturity.
 - (e) Convertible bonds do not share fully in a rise in the price of the common stock, but they provide some protection against a decline. (15%)

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