元智大學 102 學年度研究所 碩士班 招生試題卷

系(所)別：管理學院商學碩士班 組別：財務金融碩士學程 科目：財務管理 用紙第 1 頁共 4 頁

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I. Multiple Choice Questions (單選題 45%)

1. Which of the following would be considered a capital budgeting decision?
   A. Planning to issue common stock rather than issuing preferred stock
   B. A decision to expand into a new line of products, at a cost of $5 million
   C. Repurchasing shares of common stock
   D. Issuing debt in the form of long-term bonds
   E. Issuing new stocks in the primary market
2. Which of the following financial markets is located in one, centralized location?
   A. NYSE.
   B. NASDAQ.
   C. the over-the-counter market.
   D. the European Monetary Union.
   E. None of the above.
3. What happens over time to the real cost of purchasing a home, if the mortgage payments are fixed in nominal terms and deflation is in existence?
   A. The real cost is constant.
   B. The real cost is increasing.
   C. The real cost is decreasing.
   D. The price index must be known to answer this question.
   E. The nominal amount of mortgage payments must be known to answer this question.
4. Which of the following statements is correct for a 10% coupon bond that has a current yield of 8%?
   A. The face value of the bond has decreased.
   B. The bond's maturity value exceeds the bond's price.
   C. The bond's required rate of return is 8%.
   D. The bond's maturity value is lower than the bond's price.
   E. The face value of the bond has increased.
5. Which of the following describes a seasoned offering?
   A. An IPO of common stock for a well known firm.
   B. An IPO that is offered during the best buying season.
   C. An additional equity issue from a publicly-traded firm.
   D. Any shares traded in the secondary market are seasoned offerings.
   E. All of the above.
6. The NPV of an investment made today is $20,000. If postponed for one year, the NPV at that time will increase by $2,000. Which of the following is correct if the opportunity cost of the investment is 14%?
   A. Postpone; the NPV increases by a positive amount.
   B. Postpone; the NPV will be larger.
   C. Invest now; always accept positive NPV projects.
   D. Invest now; NPV does not grow at a sufficient rate.
   E. Reject this project.
7. Calculate the break-even level of sales, assuming: $1.2 million fixed costs, $300,000 depreciation expense, variable costs-to-sales ratio of 70%.
   A. $1,714,286
   B. $2,142,857
   C. $3,000,000
   D. $4,000,000
   E. $5,000,000
8. The incremental risk to a portfolio from adding another stock:
   A. is often positive but can be negative.

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B. is always greater than the average portfolio risk.
C. is always less than the average portfolio risk.
D. is always positive.
E. Is always equal to zero.

9. Why is it important to include the tax effect into cost of capital computations for firms with debt financing?
   A. Firms pay taxes on the outstanding principal amount of the debt.
   B. Comparisons with equity financing would otherwise not be possible.
   C. Taxable income is reduced by the amount of the interest expense.
   D. Taxes are paid on interest but not on dividends.
   E. In general, personal tax rate on debt income is lower than personal tax rate on equity income.

10. A warrant has an exercise price of $40, and the current stock price is $38. An investor holding this option will purchase the stock only if:
   A. the dividend yield on the stock exceeds 10%.
   B. the stock price falls below $38.
   C. the stock price falls to $20 or below.
   D. the stock price falls to par value.
   E. the stock price rises above $40.

11. The stock in your portfolio was selling for $60 per share yesterday, but has today declared a three for two split. Which of the following statements seems to be true?
   A. There will be two-thirds as many shares outstanding, and they will sell for $90.00 each.
   B. There will be four times as many shares outstanding, and they will sell for $240.00 each.
   C. There will be two times as many shares outstanding, and they will sell for $80.00 each.
   D. There will be 50 percent more shares outstanding, and they will sell for $40.00 each.
   E. There will be one-and-one-half times as many shares outstanding, and they will sell for $90.00 each.

12. Last year's return on equity was 40%, and while the same amount of earnings was generated this year, the ROE has decreased to 30%. The firm has no preferred stock. What caused the decrease?
   A. Equity increased by 33%.
   B. Equity increased by 10%.
   C. Equity decreased by 33%.
   D. Equity decreased by 30%.
   E. Equity decreased by 10%.

13. AAA Company has 2,100 shares outstanding at a market price per share of $26. BBB Company has 3,000 shares outstanding at a market price of $41 a share. Neither firm has any debt. BBB Company is acquiring AAA Company for $58,000 in cash. What is the merger premium per share?
   A. $1.43
   B. $1.62
   C. $1.81
   D. $2.04
   E. $2.07

14. The current spot rate is C$1.35 and the one-year forward rate is C$1.36. The nominal risk-free rate in Canada is 6 percent while it is 3 percent in the U.S. Using covered interest arbitrage you can earn an extra _____ profit over that which you would earn if you invested $1 in the U.S.
   A. $0.006
   B. $0.012
   C. $0.022
   D. $0.032
   E. $0.052

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15. Mutual funds offer investors the following
    A. Liquidity, diversification and control over taxation.
    B. Portfolio turnover, diversification, and choice and flexibility.
    C. Professional management, indexing, and control over taxation.
    D. Liquidity, portfolio turnover, and indexing.
    E. Liquidity, diversification and choice and flexibility.

II. Problems (55%)

1. ZZZ, Inc. is currently an all-equity financed firm. It has 20,000 shares outstanding that sell for $20 each. The firm has an operating income of $60,000 and pays no taxes. The firm contemplates a restructuring that would issue $100,000 in 8% debt which will be used to repurchase stock. Please show the value of the firm, EPS, and rate of return on the stock before and after the proposed restructuring. What changed? (10%)

2. MMM Enterprises is considering a new project. The project will require $350,000 for new fixed assets, $180,000 for additional inventory and $40,000 for additional accounts receivable. Short-term debt is expected to increase by $110,000 and long-term debt is expected to increase by $320,000. The project has a 5-year life. The fixed assets will be depreciated straight-line to a zero book value over the life of the project. At the end of the project, the fixed assets can be sold for 30% of their original cost. The net working capital returns to its original level at the end of the project. The project is expected to generate annual sales of $600,000 and costs of $480,000. The tax rate is 35% and the required rate of return is 12%.
    a. What is the initial cost of this project? (3%)
    b. What is the amount of the earnings before interest and taxes for the first year of this project? (3%)
    c. What is the amount of the after-tax cash flow from the sale of the fixed assets at the end of this project? (Round your answer to whole dollars) (3%)
    d. What is the cash flow recovery from net working capital at the end of this project? (3%)

3. You are a manager with an investment budget of $22 million. You may invest in the following projects. Investment and cash-flow figures are in millions of dollars. (Hint: Please use the Appendix Table A1 and Table A2 to calculate the following questions.)

Project	Discount Rate, %	Investment	Annual Cash Flow	Project Life, Years
A	10	6	2	5
B	12	8	2	8
C	8	10	4	4
D	8	6	3	3
E	12	6	2	6

a. Why might these projects have different discount rate? (4%)
b. Which projects should the manager choose? (6%)
c. Which projects will be chosen if there is no capital rationing? (5%)

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Appendix Table A1: Present Value of $1

Period	8%	10%	12%
1	0.9259	0.9091	0.8929
2	0.8573	0.8264	0.7972
3	0.7938	0.7513	0.7118
4	0.7350	0.6830	0.6355
5	0.6806	0.6209	0.5674
6	0.6302	0.5645	0.5066
7	0.5835	0.5132	0.4523
8	0.5403	0.4665	0.4039

Appendix Table A2: Present Value of an Annuity of $1

Period	8%	10%	12%
1	0.9259	0.9091	0.8929
2	1.7833	1.7355	1.6901
3	2.5771	2.4869	2.4018
4	3.3121	3.1699	3.0373
5	3.9927	3.7908	3.6048
6	4.6229	4.3553	4.1114
7	5.2064	4.8684	4.5638
8	5.7466	5.3349	4.9676

4. What is the market risk for individual stocks? How to measure the market risk for individual stocks? Please discuss the relation between CAPM and market equilibrium. (12%)

5. Why are longer-term bonds more sensitive to changes in interest rates than shorter-term bonds? (6%)