

元智大學 103 學年度研究所 碩士班 招生試題卷

系(所)別： 管理學院財務金融 組別： 財務金融碩士學 科目： 財務管理 用紙第 1 頁共 4 頁
 融暨會計碩士班 程

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I. 單選題 (每題3分 30%)

1. Below are the 2009 and 2010 year-end balance sheets for Tran Enterprises: The firm has never paid a dividend on its common stock, and it issued \$2,400,000 of 10-year, non-callable, long-term debt in 2007. As of the end of 2008, none of the principal on this debt had been repaid. Assume that the company's sales in 2007 and 2008 were the same. Which of the following statements must be CORRECT?

<u>Assets:</u>	<u>2009</u>	<u>2010</u>
Cash	\$ 200,000	\$ 170,000
Accounts receivable	864,000	700,000
Inventories	<u>2,000,000</u>	<u>1,400,000</u>
Total current assets	\$3,064,000	\$2,270,000
Net fixed assets	<u>6,000,000</u>	<u>5,600,000</u>
Total assets	<u>\$9,064,000</u>	<u>\$7,870,000</u>
<u>Liabilities and equity:</u>		
Accounts payable	\$1,400,000	\$1,090,000
Notes payable	<u>1,600,000</u>	<u>1,800,000</u>
Total current liabilities	<u>\$3,000,000</u>	<u>\$2,890,000</u>
Long-term debt	2,400,000	2,400,000
Common stock	3,000,000	2,000,000
Retained earnings	<u>664,000</u>	<u>580,000</u>
Total common equity	<u>\$3,664,000</u>	<u>\$2,580,000</u>
Total liabilities and equity	<u>\$9,064,000</u>	<u>\$7,870,000</u>

- A. The firm increased its short-term bank debt in 2010.
 B. The firm issued long-term debt in 2010.
 C. The firm issued new common stock in 2010.
 D. The firm repurchased some common stock in 2010.
 E. The firm had negative net income in 2010.
2. Which of the following statements is CORRECT?
- A. If you purchase 100 shares of IBM stock from your brother-in-law, this is an example of a primary market transaction.
 B. You recently sold 200 shares of IBM stock, and the transfer was made through a broker. This is an example of a secondary market transaction.
 C. The Nasdaq operates as an auction market, whereas NYSE is an example of a dealer market.
 D. The most important difference between spot markets versus futures markets is the maturity of the instruments that are traded. Spot market transactions involve securities that have maturities of less than one year whereas futures markets transactions involve securities with maturities greater than one year.
 E. None of the above.
3. Which of the following statements is NOT CORRECT?
- A. Reinvestment rate risk is lower, other things held constant, on long-term than on short-term bonds.
 B. If the pure expectations theory is correct, a downward sloping yield curve indicates that interest rates are expected to decline in the future.
 C. If the pure expectations theory is correct, The yield curve for corporate bonds may be upward sloping even if the Treasury yield curve is flat.
 D. Other things being equal, the longer-term bonds display more interest rate risk.
 E. The yield on a 10-year AAA-rated corporate bond should always exceed the yield on a 5-year AAA-rated corporate bond.
4. What happens when a bond's expected cash flows are discounted at a rate lower than the bond's coupon rate?
- A. The price of the bond increases.
 B. The coupon rate of the bond increases.

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- C. The par value of the bond decreases.
 D. The coupon payments will be adjusted to the new discount rate.
 E. None of the above.
5. Stocks A and B have the following data. Assuming the stock market is efficient and the stocks are in equilibrium, which of the following statements is CORRECT?

	A	B
Required return	11%	13%
Market price	\$30	\$45
Expected growth	8%	10%

- A. These two stocks should have the same price.
 B. These two stocks must have the same dividend yield.
 C. These two stocks should have the same expected return.
 D. These two stocks must have the same expected capital gains yield.
 E. These two stocks must have the same expected year-end dividend.
6. How much will a firm need in cash flow before tax and interest to satisfy debtholders and equityholders if: the tax rate is 40%, there is \$12 million in common stock requiring a 10% return, and \$5 million in bonds requiring an 6% return?
- A. \$1,520,000
 B. \$1,660,000
 C. \$2,000,000
 D. \$2,300,000
 E. \$2,500,000
7. Assume that the economy is enjoying a strong boom, and as a result interest rates and money costs generally are relatively high. The WACC for two mutually exclusive projects that are being considered is 10%. Project S has an IRR of 18% while Project L's IRR is 14%. The projects have the same NPV at the 10% current WACC. However, you believe that the economy will soon fall into a mild recession, and money costs and thus your WACC will soon decline. You also think that the projects will not be funded until the WACC as decreased, and their cash flows will not be affected by the change in economic conditions. Under these conditions, which of the following statement is CORRECT?
- A. You should reject both projects because they will both have negative NPVs under the new conditions.
 B. You should delay a decision until you have more information on the projects, even if this means that a competitor might come in and capture this market.
 C. You should recommend Project L, because at the new WACC it will have the higher NPV.
 D. You should recommend Project S, because at the new WACC it will have the higher NPV.
 E. You should recommend Project L because it will have both a higher IRR and a higher NPV under the new conditions.
8. Your firm is currently 100% equity financed. The CFO is considering a recapitalization plan under which the firm would issue long-term debt with a yield of 9% and use the proceeds to repurchase some of its common stock. The recapitalization would not change the company's total assets, nor would it affect the firm's basic earning power, which is 15%. The CFO believes that this recapitalization would reduce the firm's WACC and increase its stock price. Which of the following would be likely to occur if the company goes ahead with the recapitalization plan?
- A. The company's earnings per share would decline.
 B. The company's ROE would decline.
 C. The company's net income would increase.
 D. The company's ROA would increase.
 E. The company's cost of equity would increase.
9. A firm's dividend policy involves a tradeoff between:
- A. growth versus no growth in investment.
 B. high share price versus low share price.

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- C. a large asset base and a small asset base.
 - D. internal versus external financing of investment.
 - E. All of the above.
10. John has a portfolio of 20 average stocks, and Tom has a portfolio of 2 average stocks. Assuming the market is in equilibrium, which of the following statements is CORRECT?
- A. John's portfolio will have less diversifiable risk and also less market risk than Tom's portfolio.
 - B. The required return on John's portfolio will be lower than that on Tom's portfolio because John's portfolio will have less total risk.
 - C. Tom's portfolio will have more diversifiable risk, the same market risk, and thus more total risk than John's portfolio, but the required (and expected) returns will be the same on both portfolios.
 - D. If the two portfolios have the same beta, their required returns will be the same, but John's portfolio will have less market risk than Tom's.
 - E. The expected return on John's portfolio must be lower than the expected return on Tom's portfolio because John is more diversified.

II. 計算與問答題 (計算題請寫算式，否則不予計分 70%)

1. Assume that call options on DDD stock with the same exercise date in October are available with exercise prices \$55, \$65, and \$75. Also assume that the price of the middle call were the average of the other two calls. Show that if you sell two of the middle calls and use the proceeds to buy one each of the other calls, your proceeds in October may be positive but cannot be negative despite the fact that your net outlay today is zero. What can you deduce from this example about option pricing? (15%)
2. If financial markets are efficient, why do technical and fundamental analysts exist? (10%)
3. Mulroney Corp. is considering two mutually exclusive projects. Both require an initial investment of \$10,000 at $t = 0$. Project X has an expected life of 2 years with after-tax cash inflows of \$6,000 and \$7,900 at the end of Years 1 and 2, respectively. Project Y has an expected life of 4 years with after-tax cash inflows of \$4,300 at the end of each of the next 4 years. Each project has a WACC of 10.00%. Which one is better? (Hint: Please use the Appendix Table A1 or Table A2 to calculate the following questions.) (10%)
4. Modern Company can produce keepsakes that will be sold for \$100 each. Nondepreciation fixed costs are \$1,000 per year and variable costs are \$75 per unit. If the project requires an initial investment of \$2,500 and is expected to last for 5 years and the firm pays no taxes, what are the accounting and economic break-even levels of sales? The initial investment will be depreciated straight-line over 5 years to a final value of zero, and the discount rate is 10%. (Hint: Please use the Appendix Table A1 or Table A2 to calculate the following questions.) (15%)
5. Where will the following projects plot in relation to the security market line if the risk-free rate is 7% and the market risk premium is 8%? Which projects should be undertaken? (10%)

Project	Beta	IRR
A	2.0	25%
B	1.5	22%
C	1.0	15%
D	0.7	11%

Hint: Beta is the systematic risk. IRR is the internal rate of return of project.

6. Suppose in the spot market 1 U.S. dollar equals 1.11 Canadian dollars. 6-month Canadian securities have an annualized return of 5% (and thus a 6-month periodic return of 2.5%). 6-month U.S. securities have an annualized return of 5.5% and a periodic return of 2.25%. If interest rate parity holds, what is the U.S. dollar-Canadian dollar exchange rate in the 180-day forward market? In other words, how many Canadian dollars are required to purchase one U.S. dollar in the 180-day forward market? (10%)

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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

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