

Print Last Name: →	Print First Name: →	ID Number: →	
COURSE FINANCE	NUMBER COMM 308/2	SECTIONS: (→ Circle your section) A, AA, B, BB, C, D, E	
EXAMINATION Final Exam VERSION GREEN	DATE December 19, 2009	TIME 3 hours	# OF PAGES 15 including cover
INSTRUCTOR: (→ Underline your instructor's name) D. Newton R. Jassim R. Mateti J. Riley T. Walker		DIVISION John Molson School of Business Concordia University	

READ THESE SPECIAL INSTRUCTIONS CAREFULLY

- You are allowed one 8.5x11 sheet of paper (double sided); You may write, type, draw or copy anything on this sheet.
- This is Version GREEN of the test. You must submit a GREEN computer answer sheet.
- For Multiple Choice Questions,
All answers must be recorded IN PENCIL on the computer sheet.
- For Problems:
All answers must be recorded within this exam.
Show your calculations to earn part marks. Write in the space provided.
- Cell phones must be turned off, programmable calculators and PDAs are not allowed.
- Please ensure you have 15 pages (including cover) in this exam.
- Fill in your name and other required information IN PENCIL on the Computer Answer sheet as well as on this cover sheet.
- Blank questions or those with multiple answers will not receive credit.
- Translation dictionaries are allowed if approved by professor at start of exam.

REMINDER: Put your Name and ID on (1) this exam; (2) computer answer sheet and (3) Your Crib Sheet. Hand in this exam, computer sheet and your Crib Sheet.

Multiple Choice: answer on the GREEN computer answer sheet

Part I: Multiple Choice Questions (25 Questions, 70 Points Total):

- This part consists of 10 concept questions and 15 calculation problems.
- Each concept question counts 2.5 points for a total of 25 points and each calculation problem counts 3 points for a total of 45 points.
 - **Only answers on the computer answer sheet will be graded.**
 - **Use a pencil to mark your answers.**
 - Select only one answer per question, blank or multiple answers will not receive credit.
 - You are encouraged to also circle your answer on the exam sheet as a back up.

A. Concept Questions (10 Questions, 2.5 Points Each)

1. Which of the following should be the primary goal of a CEO of a publicly-traded company?
 - A) Maximize the profit margin
 - (D) B) Minimize the risk of bankruptcy
 - C) Maximize market share
 - D) Maximize the share value

2. If a company insider uses all of her private knowledge about the company and has an advantage over the outside investors, then the market has to be:
 - A) Strong form efficient
 - (D) B) Semi-strong form efficient
 - C) Weak form efficient
 - D) None of the above

3. The yield to maturity (YTM) of a bond is:
 - A) Is determined by the issuing firm
 - B) Less than the coupon rate if the price of the bond is less than the face or par value
 - (C) C) Less than the coupon rate if the price of the bond is greater than the face or par value
 - D) All of the above are true

4. Two bonds pay the same amount each year, have identical maturities and par (or face) values and the same risk. Bond 1 pays its coupons twice a year while bond 2 pays its coupons once a year. Which will trade at a higher price:
 - (A) A) Bond 1
 - B) Bond 2
 - C) They will both trade at the same price
 - D) Cannot be determined without knowing the coupon rate and the yield to maturity of the two bonds.

5. Which of the following is true of risk and return:
- A) Riskier assets, on average, earn lower returns
 - (D) B) The reward for bearing risk is known as the correlation
 - C) An increase in the risk of an investment will result in a decrease in the risk premium
 - D) In general, the higher the risk the higher the expected return.
6. Which of the following statements about the correlation coefficient is correct?
- A) Positive correlation coefficients imply that the returns on Security A tend to move in the same direction as those on security B.
 - (D) B) The closer the absolute value of the correlation coefficient is to one, the stronger the relationship between the returns on the two securities.
 - C) Negative correlation coefficients imply that the returns on Security A tend to move in the opposite direction to those on security B.
 - D) All of the above statements are correct
7. The Willy Wonker Toy Company has two divisions – stuffed toy and fireworks. The stuffed toy division's cash flows are very low risk while the fireworks division is very risky. The required rate of return for the stuffed toy projects is 3% while the rate for the fireworks projects is 15%. The overall weighted average cost of capital (WACC) for Willy Wonker is 10%. If the fireworks division uses the overall firm WACC to evaluate fireworks projects then:
- A) The risk of the firm will increase because the firm will accept low risk stuffed toy projects and reject high risk fireworks projects
 - (C) B) The risk of the firm will decrease because the firm will accept low risk stuffed toy projects and reject high risk fireworks projects
 - C) The risk of the firm will increase because the firm will reject low risk stuffed toy projects and accept high risk fireworks projects
 - D) The risk of the firm will decrease because the firm will reject low risk stuffed toy projects and accept high risk fireworks projects

8. Hermione, a junior analyst in your firm, is very excited. She tells you that she has been analyzing different firms and has found that firms with large accounts payable tend to generate higher returns for their stock holders. Should you follow Hermione's advice and buy companies with large accounts payable balances? Select the best answer.
- (B) A) No, firms with large accounts payable balances are likely to become bankrupt. One should never invest in firms with high levels of accounts payable.
B) No, Hermione has just rediscovered the effects of financial leverage. The extra return is to compensate shareholders for the increased risk of financial distress. There is no abnormal return.
C) Yes, Herminone's analysis is likely an indication of a short-term market inefficiency and if you act quickly on the information, you can make an abnormal profit.
D) Yes, by modifying Herminone's strategy to hold a diversified portfolio of firms with large accounts payable balances, a high rate of return can be earned while reducing the financial leverage risk.

9. Which of the following statements are true:

- (B) I. If the cost of equity is 10% and the return on equity (ROE) is 10%, then changing the retention ratio would not affect the share price.
II. If the cost of equity is 10% and the ROE is 14%, then a higher retention ratio would result in a higher share price.
III. If the cost of equity is 10% and the ROE is 8%, then a higher retention ratio would result in a higher share price
- A) I only
B) I and II
C) I and III
D) II and III

(Omit Question 10)

10. The LPD Company and UKL Inc. operate in a world with taxes and no financial distress. UKL has a debt/equity ratio of 2 and its cost of equity is 15%. LPD has a debt/equity ratio of 3. The cost of risk free debt is 8%. According to M&M, the cost of equity for LPD will be:
- (C) A) Greater than the cost of equity for UKL
B) The same as the cost of equity for UKL
C) Less than the cost of equity for UKL
D) None of the above is always true

B. Calculation Multiple Choice Problems (15 Questions, 3 Points Each)

11. You have invested \$5,000 at 3% compounded annually. The value of the investment in 5 years is closest to:
- A) \$5,796
 - (A) B) \$5,750
 - C) \$5,000
 - D) \$4,313
12. You have been offered an annuity of \$1,000 per year for 8 years with the first payment to be made immediately. If the appropriate discount rate is 5%, then the present value and future value, respectively are closest to:
- Present Value ; Future Value
- (B) A) \$6,786.37 ; 0.00
 - B) \$6,786.37 ; \$10,026.56
 - C) \$6,463.21 ; \$9,549.11
 - D) \$7,463.21 ; \$10,501.49
13. Your Uncle Henry has promised to give you \$25,000 when you graduate. Michel has offered you pay you \$22,500 today in return for Uncle Henry's gift in the future. Assume your opportunity cost is 3.6%. Should you accept the offer?
- (A) A) Yes, if you plan on taking 3 years or more to graduate
 - B) Yes, if you plan on taking less than 3 years to graduate
 - C) No, it is never a good deal.
 - D) Yes, it is always worth more to get money today rather than wait
14. Four years ago you purchased a house for \$150,000. You have just sold the house for \$115,000. The annual rate of return you have earned on this property is closest to:
- (A) A) -6.43%
 - B) 0.94%
 - C) 6.87%
 - D) 7.61%

15. The UJK Company has just paid a dividend of \$5. The dividends are expected to grow at a rate of 4% per year forever. The required rate of return for UJK is 12%. The current price of UJK is closest to:
- A) \$41.67
 - (C) B) \$62.50
 - C) \$65.00
 - D) \$70.00
16. An effective annual interest rate of 15% is equivalent to a rate of _____ compounded monthly.
- A) 1.17%
 - B) 12.14%
 - (C) C) 14.06%
 - D) 14.55%
17. Wally's Furniture has made you the following offer: you can purchase a \$5,000 set of bedroom furniture for \$0 down and no payments for 12 months. At the end of 12 months, you will have to pay \$5,000. Jillian's Furniture is offering the same bedroom furniture for \$4,800. If your savings account is paying 5% compounded annually (and you have sufficient money to buy the furniture), then:
- (D) A) You should buy the furniture at Jillian's because the PV of Wally's is less than \$4,800
 - B) You should buy the furniture at Jillian's because the PV of Wally's is greater than \$4,800
 - C) You should buy the furniture at Wally's because the PV of the purchase price is greater than \$4,800
 - D) You should buy the furniture at Wally's because the PV of the purchase price is less than \$4,800

18. Franklin wishes to have \$10 million in his retirement savings plan in 25 years. His bank is offering him an investment that promises a return of 8% compounded monthly. Franklin wishes to deposit money every six months. Franklin's semi-annual deposit is closest to:
- (C) A) \$10,740
B) \$17,429
C) \$64,151
D) \$65,502
19. Ten years ago, The HighTop Co issued \$5 million in preferred shares with a par value of \$50 each and an annual dividend rate of 3.5%. The market value of these preferred shares is _____ if the required rate of return is 8%.
- (D) A) \$11.43 million
B) \$7.30 million
C) \$5.00 million
D) \$2.19 million
20. The price of a 10 year semi-annual pay bond with a par value of \$1,000 and a 7.5% annual coupon and yield to maturity of 8.25% is closest to:
- (A) A) \$949.60
B) \$950.24
C) \$1,051.48
D) \$1,052.11

21. You have observed the following information about the two stocks you hold in your portfolio:

	Xxs	Yyk
Expected return	10%	5%
Standard deviation of returns	8%	2%
Value	\$15,000	\$25,000

The correlation between Xxs and Yyk is 0.45. The expected return and standard deviation of your portfolio are closest to:

- | | Expected Return | ; | Standard Deviation |
|--------|-----------------|---|--------------------|
| (B) A) | 6.88% | ; | 3.25% |
| B) | 6.88% | ; | 3.73% |
| C) | 8.13% | ; | 5.06% |
| D) | 8.13% | ; | 5.38% |

22. You have just completed an analysis of the performance of a stock during economic recessions and expansions. Based on your analysis you believe:

Economic condition	Probability	Stock return for next year
Recession	35%	-25%
Neutral (normal)	45%	5%
Expansion	20%	15%

Based on the results of your analysis, the expected return for the stock next year is closest to:

- (A) A) -3.5
 B) -5%
 C) 14%
 D) 15%

Multiple Choice: answer on the GREEN computer answer sheet

(Omit Questions 23, 24 and 25)

Questions 23 to 25 are based on the following information:

The XOlent Company earns a perpetual annual EBIT of \$15,000 and pays taxes at a rate of 25%. The company currently has no debt and has a market value of \$83,500. XOlent has decided to issue \$35,000 of perpetual risk free debt and will use the funds to repurchase debt. The risk free rate is 3% and the expected return on the market is 8%. Assuming that the M&M with taxes assumptions hold,

23. The weighted average cost of capital (WACC) of the XOlent Company **BEFORE** they issue the debt is closest to:
- A) 17.96%
 - B) 13.47%
 - C) 8.00%
 - D) 4.49%
24. The weighted average cost of capital (WACC) of the XOlent Company **AFTER** they issue the debt is closest to:
- A) 13.5%
 - B) 12.2%
 - C) 10.3%
 - D) 9.5%
25. The cost of equity of the XOlent Company **AFTER** they issue the debt is closest to:
- A) 12.5%
 - B) 14.0%
 - C) 18.3%
 - D) 21.6%

Problems: Answer on the exam in the space provided

Problem 1. (8 marks) Emmett Cullen is trying to decide if he should continue in university. He has two more years of study before he will graduate. Emmett is already \$20,000 in debt and will have to borrow an additional \$15,000 to remain in school and graduate. As he has borrowed the money from his Grandfather, he will not have to pay any interest on the debt but will have to repay the total debt 10 years after leaving school.

If he leaves school now, he expects to earn \$35,000 per year and expects his income to increase by 3% per year. However, if he graduates from university, he expects his starting salary to be only \$31,000 however it will grow at 4% per year.

Emmett expects to live forever, pays no taxes and the appropriate discount rate is 7%. Assume all salaries are paid at the end of the year.

Do you recommend that Emmett graduate from university? Support your recommendation (calculations and at most one sentence). Show your work clearly in order to obtain part marks – recommendations without support will receive a zero.

$$\text{PV of Future Salaries} = 35,000 / (0.07 - 0.03) = \$875,000$$

$$\text{PV of Future Salaries (after graduation)} =$$

$$[31,000 / (0.07 - 0.04)] * 1 / 1.07^2 = \$902,553.35$$

$$\text{Difference between the two present values} = \$27,553.35 > \$15,000$$

Therefore, Emmett should borrow the \$15,000 and complete graduation.

Problems: Answer on the exam in the space provided

Recommendation:

Problems: Answer on the exam in the space provided

Problem 2. (6 marks) You wish to determine whether or not to invest in the XYZ Company. The company is expected to pay a dividend of \$10 in one year and the current price of the stock is \$155. The beta of the company's stock is 1.2, the risk free rate is 3% and the expected return on the market is 7%. You believe that the company's dividend will grow at a rate of 2% per year forever.

Should you buy the company's stock? Support your recommendation with any necessary calculations. Show your work clearly in order to obtain part marks – recommendations without support will receive a zero.

$$\text{Div}_1 = \$10$$

$$P_0 = \$155$$

$$\text{Beta} = 1.2$$

$$r_f = 3\%$$

$$E(r_m) = 7\%$$

$$g = 2\%$$

$$E(\text{ret}) = r_f + \text{beta} * [E(r_m) - r_f] = 7.8\%$$

$$\text{DDM: Price} = \text{Div}_1 / (k - g)$$

$$\Rightarrow k = (\text{Div}_1 / \text{Price}) + g$$

$$= (10 / 155) + 0.02 = 8.45\%$$

Since the market return is higher than the expected fair return (Assuming CAPM is the correct model), therefore, the asset is underpriced.

\Rightarrow A good asset to buy.

Recommendation:

Problems: Answer on the exam in the space provided

Problem 3. (8 marks) Over the past year, the LUX Lighting Corporation has spent \$75,000 investigating alternative machines and has identified one candidate. The machine will cost \$100,000 and is expected to generate annual operating cash flows of \$50,000 in years 1 to 5, and \$30,000 per year for years 6 and 7. The machinery has a CCA rate of 15% and is expected to have no salvage value at the end of the 7 years. Assume the asset class remains open after the asset is sold. The firm's marginal tax rate is 45%. If the appropriate discount rate is 10%, should the LUX Lighting Company buy the machine? Support your recommendation with any necessary calculations. Show your work clearly in order to obtain part marks – recommendations without support will receive a zero.

Try solving this question on your own and if having problem, feel free to seek help from your instructor or the tutors.

Problems: Answer on the exam in the space provided

Recommendation:

Problems: Answer on the exam in the space provided

(Omit Question 4)

Problem 4. (4 marks) According to M&M with taxes, issuing debt can increase the value of a firm. In view of this, the manager of a firm with a debt/equity ratio of 10 plans on issuing more debt in order to increase the value of his firm. Evaluate his plan – do you think it will increase the value of the firm? Why or why not? Answer in the space allocated.

Problem 5. (4 marks) Your Grandmother has just finished reading your class notes and states: “Call options are simple – you can never lose because you always have a choice”. Is she correct? Explain. Answer in the space allocated.

~~She is correct as far as the payoff of the long option is concerned. However, in terms of profit she is wrong, because if the share price remains below (strike + option premium), then you will lose part or, or the entire premium.~~

HAVE YOU:

- Put your Name and ID on the exam, computer answer sheet and “crib” sheet?
- Make sure you hand in the exam, the computer answer sheet and “crib” sheet.

--- Have a great holiday and see you in the new year ---