

EXAMPLE MIDTERM

You will be given a sheet of formulas. You can have a calculator, but the calculator cannot have a programmable memory or formula feature. Those of you who do have a programmable feature will have to prove to me that the calculator memory is empty.

Please read all the questions before you start on the exam. Think before you answer. Also, keep in mind that the more you write, the more likely it is that you will make a mistake. Show all work

Unless specified otherwise, assume well functioning (normal) capital markets with no taxes. You must show all work. Anything you want me to read must be written on the exam papers.

The exam will last for 90 minutes.

Good Luck!

Specific Subject Matter Not relevant

2. You have been following Com Dot Services, Inc's stock performance in recent years, waiting for the right time to buy. Com Dot's dividend and earnings have been steady at \$4.00 per share for the last 5 years. You expect that Com Dot will continue paying this \$4 dividend into the foreseeable future. Given the risk of Com Dot you require a return of at least 20 % to hold the stock.

a. What is the maximum price you would be willing to pay for Com Dot?

b. Com Dot announced a new aggressive investment policy, plowing back 75% of earnings (and Dividends). Analysts believe that the required return to Com Dot stockholders will remain at 20%, and they expect that the firm's dividends will grow at a rate of 15% per year into the indefinite future. What will happen to the price of Com Dot stock?

c. What is the Net Present Value of the new Investments that Com Dot is undertaking? How do you know? Explain.

Specific Subject Matter Not Relevant

3. You are considering purchasing the following U.S. corporate bond at a price of 101:

ATT7s10

The bond matures on February 27th

- (i) What is the yield to maturity of this bond?
- (ii) What is the current yield of this bond?
- (iii) If interest rates suddenly change so that similar bonds are yielding 7.2 % to maturity, what would you expect this bond to sell for? Explain?

Specific Subject Matter Not Relevant

4. You are examining the financials of Amalgamated Milling Co. (AMC) for possible acquisition by your firm, Raiders Unlimited. Last year AMC earned \$500,000. It has no debt, and the risk of the firm is similar to the risk of other firms paying about an 18% rate of return. The firm had no growth opportunities and all of its earnings were being distributed to the stockholders. You anticipate that if acquired, cost savings would lead to an immediate increase in earnings to \$600,000 over the next year (that is fiscal year ending February, 20XX+1). Due to your market domination in this area, you could sustain a growth in earnings for the Amalgamated division of 6% per year, by retaining 20% of earnings. (Assume depreciation is zero, and there are no taxes).

(a) What is the maximum amount that you would you be willing to pay to acquire this firm?

(b) Once acquired, and after the cost savings are realized, what is your estimate of the value of Amalgamated's growth opportunities? (PVGO)

(c) If you could acquire Amalgamated for \$3.5 million what would happen to your stockholders' wealth? Be specific. I am looking for a number.

(d) Would Amalgamated's stockholders be receptive to an offer of \$3.5 million? Why or why not? Explain.

5. You are given the following statistics about four projects being considered by your firm. The discount rate used to discount the cash flows from each of these projects is 10%. Answer the question showing all work and explain fully. (Assume that the projects cannot be reproduced at a positive NPV unless stated otherwise.)

PROJECT	INITIAL INVESTMENT	NPV	LIFE OF PROJECT
A	\$4,000,000	500,000	20
B	\$2,000,000	800,000	10
C	\$1,000,000	1,250,000	35
D	\$1,000,000	1,000,000	17

1. What project(s) would you choose if funds were unlimited, and the projects were not mutually exclusive?
2. What project(s) would you choose if the projects were not mutually exclusive but funds were limited to \$4,000,000?
3. What project(s) would you choose if the projects were mutually exclusive, funds were unlimited and the projects could be reproduced at the end of their lives, at the same NPV as given in the table?
4. What project(s) would you choose if the projects were not mutually exclusive, funds were unlimited, and the projects could be reproduced indefinitely, at the end of their lives, at the same NPV as given in the table?