

Instructions:

- 1) The part of the exam is closed book and closed notes. No scrap paper is allowed; use the back of the exam if necessary.
- 2) Partial points are based on readily observable evidence that you know at least part of the solution concept. The more evidence presented (and the clearer the evidence), the better the chance for partial points. In other words, SHOW ALL WORK!
- 3) Multiple Choice are worth 3 points each. True False are worth 2 point each. Short answer questions are worth 4 points each. Problems are worth the number of points listed in the question.

1. (3 points) What is usually listed as the primary goal of managers?

2. (4 points) The overall process of capital budgeting can be broken down into five steps as a project moves from idea to reality. Name the most important step. Describe which step is most important.

3. (2 points) Match the Capital Budgeting method with the assumed reinvestment rate (answers may be used more than once).

a. Net Present Value _____

b. Internal Rate of Return _____

c. Payback Period _____

d. Profitability Index _____

a. Internal Rate of Return

b. Cost of Capital

c. Return on Investment

d. Return on Equity

e. None of the above.

4. What is the best Capital Budgeting Decision Rule? Why?

5. (2 points) Match the term with the date:

Declaration Date _____

a. August 15, 2005

Record Date _____

b. July 26, 2005

Payment Date _____

c. August 12, 2005

Ex-Dividend Date _____

d. September 7, 2005

6. (3 points) What are the three components/decisions in creating dividend policy for a firm?

a.

b.

c.

7. Fill in the blanks related to the following real options. Be precise in your description of the underlying asset and who is long in the option.

a. You currently have a job making \$25 per hour. Another company makes a binding offer to hire you for \$10 per hour.

Type _____ Who is long _____ Who is short _____ Underlying Asset _____

b. You have comprehensive coverage on your automobile, with a \$250 deductible. The automobile is currently valued at \$15,000.

Type _____ Who is long _____ Who is short _____ Underlying Asset _____

c. The University of West Georgia has committed to a 'study abroad' program planned for Summer 2006. Students who pay a \$500 deposit, by December 17, will be allowed to enroll in the program. The program offers 9 semester hours and the total cost to each student is \$5000.

Type _____ Who is long _____ Who is short _____ Underlying Asset _____

d. Your 4531 professor keeps mumbling something about a "prisoner's dilemma game." Since several students do not appear to know the game to which he refers, he offers to add 1 point to the final exam score of anyone who can describe the game on the back of page 1 of this exam. While he may be somewhat forgetful, he keeps his word when he puts it in writing.

Type _____ Who is long _____ Who is short _____ Underlying Asset _____

8. (4 points) Briefly discuss why soft capital rationing and post-audits may be viewed as substitutes.

9. Hapiman Enterprises is considering a seven-year project that has a positive, but very low NPV. Hapiman's planners have recently concluded that it will be able to abandon the project after two years, if operating cash flows turn out to be lower than expected. What effect is this opportunity likely to have on the project's expected return and risk?

- Expected return and risk would likely decrease.
- Expected return would likely increase, while risk would likely decrease.
- Expected return and risk would likely increase. +
- Expected return would likely decrease, while risk would likely increase.
- Expected return and risk would be largely unaffected.

10. Regarding the net present value of a replacement decision, which of the following statements is false?

- The present value of the after tax cost reduction benefits resulting from the new investment is treated as an inflow.
- The after-tax market value of the old equipment is treated as an inflow at $t = 0$.
- The present value of depreciation expenses on the new equipment, multiplied by the tax rate, is treated as an inflow.
- Any loss on the sale of the old equipment is multiplied by the tax rate and is treated as an outflow at $t = 0$.
- An increase in net operating working capital is treated as an outflow when the project begins and as an inflow when the project ends.

11. Which of the following statements most correctly identifies the payoff of a call option?
- a. The maximum of either the stock price minus the exercise price or zero.
 - b. The maximum of either the exercise price minus the stock price or zero.
 - c. The difference between the price a stock is sold for and the price paid for the stock.
 - d. The difference between the price received from the short sell of a stock and the price for which the stock is repurchased.
 - e. The hedge ratio times current price of a stock minus the present value of the exercise price (discounted at the risk-free rate).
12. What is the optimal dividend policy? Why?

Instructions:

- 1) The part of the exam is open book and open notes.
- 2) Point values are listed with the question.
- 3) Show your work in order to have the possibility of partial credit.

1) (6 points) The following series of cash flows occur for $t = 0, 1, 2, 3, 4, 5,$ and 6 and beyond, respectively: - \$125,500, \$18,900, \$28,500, \$3,500, \$8,500, \$68,500, and for year 6 and beyond \$3,500. If the appropriate risk-adjusted discount rate is 7.5%:

What is the payback period?

What is the Profitability Index? Based only on Should you accept or reject this project?

2. (5 points) You have the following cash flows, Year 0=0, Year 1=-80,000, Year 2 = +500,000, Year 3 = -500,000. If your cost of capital is 100%:

a. What is the correct NPV? Based only on NPV, Should you accept or reject this project?

b. What is the correct IRR? Based only on IRR, should you accept or reject this project?

3. (3 points) If the projects in Questions 1 and 2 are mutually exclusive, and assuming that your estimates of the cash flows and discount rates are unbiased, which project (s) would you choose?

4. Consider the projects shown below.

Project:	A	B	C	D	E	F	G	H	I
Initial Cost:	250	300	150	400	405	450	225	290	50
NPV:	2	35	34	32	28	38	44	7	19

a. (4.5 points) What is the profitability index for each project ? Write the answer below each project.

b. (2.5 points) If you are hard capital rationed to \$975, which projects do you choose?

5. (6 points) Suppose you can buy a call option on a piece of land. The land is currently valued at \$70,000. In one year, the land will be either worth 16% more or worth 9% less. The exercise price of the option is \$80,000 and the riskless rate of return is 5%.

a. What is the value of the call option today?

b. Suppose you owned the land, and wanted to buy a put option, using the same inputs as above. How much is the put option, with exercise value of \$80,000 worth today?

6. (4 points) Consider the cash flow series shown in the table below. As you will note, cash flow 3 is missing. Find the missing Year 3 cash flow that will make the present value of the cash flows equal to \$2500 given a nominal discount rate of 12.4 percent.

Year	Cash Flow
0	\$384
1	\$416
2	\$584
3	?????
4	\$214
5	\$962

7. (10 points) In 2005, the Lissa Company, a high growth firm, paid dividends of \$5,000,000 on after-tax income (cash flow) of \$25,000,000. Capital budget projects totaled \$31,000,000 in 2005. 2005 was a normal year for earnings, dividends, and capital budgets. For the past 12 years, earnings have grown at a constant rate of 14%. However, in 2006, earnings are expected to fall to \$25,000,000 and the firm expects to have profitable investment opportunities will grow to 18,000,000. It is predicted that Lissa will not maintain the 2006 level of earnings growth, and the company will return to the 2005 earnings and growth rate in 2006. Lissa's currently has a market value debt to assets of 25% and has a target market value debt to assets of 20%.

a. Calculate Lissa's total dividends for 2006 if its dividend payment is set to force dividends to grow at the long-run growth rate in earnings.

b. Calculate Lissa's total dividends for 2006 if it continues its 2004 dividend payout ratio.

c. Calculate Lissa's total dividends for 2006 if it uses a pure residual dividend.

d. Choosing only among a, b, and c, What is Lissa's optimal dividend policy? Why?

8. (3 points) Assume that BIM is selling for \$180 per share. BIM implements an 8% stock dividend, and no other change in the value of the firm occurs. What is the value of one share after the stock dividend?

9. (15 points) The KaoDys Sports Company purchased a machine 3 years ago at a cost of \$400,000. The machine had an expected life of 8 years at the time of purchase. It is being depreciated using 5 year MACRS. A new machine can be purchased for \$560,000; it will require modification costs of \$20,000 and installation and delivery costs will be \$20,000. During its 5-year life, this new machine is expected to lead to an increase in sales revenues of \$300,000 per year. Cash operating expenses are expected to increase by \$100,000 per year. At the end of its useful life, the machine is estimated to be worth \$50,000. The machine will be depreciated according to the 3-year MACRS schedule. The old machine can be sold today for \$140,000 or for \$30,000 in five years. The firm estimates that the new machine will require/cause the following working capital changes: inventories will decrease by \$4,000, accounts receivable will decrease by \$8,000, and accounts payable will decrease by \$3,000. The firm's tax rate is 40 percent. The appropriate discount rate is 16 percent.

(Fill in the blanks for 2 points) The NPV of this project is \$_____ and we should _____ the project. For 13 points, show how the previous two answers are correct.