Name (Print Clearly): ***Solutions to the Practice Exam***

ID Number: _____

FINANCIAL MANAGEMENT – I
BAFI 402, Fall 2001
Mid-term Exam

General Guidelines:

1. **Print your name** and ID number on top of this page.
2. Please write your answers in ink (Blue/Black), **NOT with a pencil**.
3. **Do not detach any sheet**(s) from this question paper.
4. This is a **closed book** examination.
5. Total duration for this exam is **120 minutes** and total points are **100**.
6. In sections I and II, **clearly** encircle **one and only one** alternative, which you feel is **the most correct answer**. Optionally, you can write a **one-line** (*strictly one line*) explanation of your answer on the line provided. *If your answer is wrong but the explanation is right*, you might get partial, or even full credit for that question, depending on how correct your explanation is. However, *if your answer is right, but your explanation is wrong*, you will not get any credit for that question. *If your answer is right and no explanation is given*, you will still get full credit for that question.
7. In answering questions you can refer to the one sheet of paper that you are allowed to bring with you.
8. Don't waste too much time on any one question - the questions in this exam are of varying levels of difficulty, so at least try to answer all the easier questions, then come back to the difficult ones.
9. You should write your answers **on the question paper itself**.
10. Please do not try to communicate with any of your fellow students - if you have a question, ask me. **Any communication with any student during the course of this exam would be construed as a violation of the school's honor code.**

GOOD LUCK!

Section Number	Question Number (s)	Points
I	**1-10**	
II	**1-10**	
III	**1**	
TOTAL		

SECTION I (True or False): There are 10 questions; 10 x 3 =30 points

(SUGGESTED TIME: 30 MINUTES)

1. For a par bond (i.e., a bond priced at par value), the current yield is the same as the yield to maturity.

   TRUE FALSE

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2. The NPV of a project overstates the true return on the project when the project is very attractive, i.e., when the IRR on the project is much higher than the cost of capital.

   TRUE **FALSE**

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3. An oil exploration firm has estimated the value (NPV) of exploring a 700 sq. km area in the North Sea to be about $-120 million. However, only by investing in exploration can they ever have the chance of actually extracting oil, if the exploration results indicate that the area has a lot of potential. There is considerable uncertainty about the potential of the North Sea oil area, and the option value (the value of the option to extract oil if found attractive) has been estimated to be about $200 million. Therefore, the oil company in question should go ahead and spend the money on exploration, even though it is a cash drain and a negative NPV project.

   TRUE FALSE

There will be 10 questions like this in the exam.

SECTION II (Multiple Choice): 10 x 4=40 points
(SUGGESTED TIME: 50 MINUTES)

1. The marketing manager of a consumer products firm is considering launching a new product. To determine consumers' interest in the product, the manager can conduct a focus group that will cost $120,000 (with a 70% chance of ensuring the success of the product), or hire a consulting firm that will research the market at a cost of $400,000. The consulting firm boasts of a success record of 90%. Going directly to the market with no prior testing will result in success 50% of the time. If the firm launches the product, and it is a success, the payoff will be $1.2 million. Which action will result in the highest expected payoff for the firm?

a) Conducting a focus group, and launching the product if it predicts success.

b) Hiring the consulting firm, and launching the product if it predicts success.

c) Launching the product anyway.

d) Not launching the product at all.

e) None of the above.

Choose the alternative with the highest expected payoff _____

2. Bond X is a premium bond making annual payments, a 9% coupon, has a YTM of 7%, and has 10 years left to maturity ($1000 par). What is the current price of the bond?

a) $1140.47 (simple YTM calculation)

b) $1194.31

c) $1087.92

d) $961.23

e) None of the above.

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1. Your financial planner offers you two different investment plans. Plan X is a $5,000 annual perpetuity. Plan Y is a 10-yr, $10,000 annual annuity. Both plans will make their first payment one year from today. At what discount rate would you be indifferent between these plans?

a) 6.24%

b) 6.91%

c) 7.18% (Equate the present values of the two streams of cash flows, solve for 'r')

d) 7.33%

e) None of the above

There will be ten questions like this in the exam.

SECTION III (PROBLEM): 30 POINTS

(SUGGESTED TIME: 40 MINUTES)

Macadamia Corp. is experiencing rapid growth. Dividends are expected to grow at 20% per year for the next three years, and then 5% per year indefinitely. The required return on this stock is 15%.

a. (10 points) If the current dividend is $2.00 per share, what is the current stock price?

0_____1_____2_____3_____4_____
2.40 2.88 3.46 3.63

Expected price at the end of year 3 = 3.63/(0.15-0.05) = $36.29

Discount the dividends over the first three years, plus the expected price at the end of the third year, and add them up (discount @ 15% p.a.).

Expected price of stock at year 0 (ex-dividend) = $30.40

b. (5 points) If the 20% supernormal growth rate lasts only for two instead of three years (other things remain the same), how does this affect the current stock price?

0_____1_____2_____3_____
2.40 2.88 3.02

Expected price at the end of year 2 = 3.02/(0.15-0.05) = $30.24

Discount the dividends over the first two years, plus the expected price at the end of the second year, and add them up (discount @ 15% p.a.).

Expected price of stock at year 0 (ex-dividend) = $27.13

The price is lower in this case since the high growth period was assumed to last for a shorter period.

There will be one problem like this in the exam, but longer, with 5-6 parts.