

**HOFSTRA UNIVERSITY
FRANK G. ZARB SCHOOL OF BUSINESS
DEPARTMENT OF FINANCE**

FIN 101 – Dr. Cebenoyan

Name:.....

February 28, 2002- Exam 1

SS # (last 4 digits):

ANSWER ALL QUESTIONS SHOWING ALL YOUR WORK. (5 points each)

1. Assume that you will receive \$2,000 a year in Years 1 through 5, \$3,000 a year in Years 6 through 8, and \$4,000 in Year 9, with all cash flows to be received at the end of the year. If you require a 14 percent rate of return, what is the present value of these cash flows?

2. You just graduated, and you plan to work for 10 years and then to leave for the Australian "Outback" bush country. You figure you can save \$3,000 a year for the first 5 years and \$5,000 a year for the next 5 years. These savings cash flows will start one year from now. In addition, your family has just given you a \$10,000 graduation gift. If you put the gift now, and your future savings when they start, into an account which pays 8 percent compounded annually, what will your financial "stake" be when you leave for Australia 10 years from now?

3. As the winning contestant in a television game show, you are considering the prizes to be awarded. You must indicate to the sponsor which of the following two choices you prefer, assuming you want to maximize your wealth. Assume it is now January 1, and there is no danger whatever that the sponsor won't pay off.

- (1) \$1,000 now and another \$1,000 at the beginning of each of the 11 subsequent months during the remainder of the year, to be deposited in an account paying a 12 percent simple annual rate, but compounded monthly (to be left on deposit for the year).
- (2) \$12,750 at the end of the year.

Which one would you choose?

4. On January 1, 1996, a graduate student developed a 5-year financial plan which would provide enough money at the end of her graduate work (January 1, 2001) to open a business of her own. Her plan was to deposit \$8,000 per year for 5 years, starting immediately, into an account paying 10 percent compounded annually. Her activities proceeded according to plan except that at the end of her third year (1/1/99) she withdrew \$5,000 to take a Caribbean cruise, at the end of the fourth year (1/1/00) she withdrew \$5,000 to buy a used Prelude, and at the end of the fifth year (1/1/01) she had to withdraw \$5,000 to pay to have her dissertation typed. Her account, at the end of the fifth year, was less than the amount she had originally planned on by how much?

5. You have just taken out an installment loan for \$100,000. Assume that the loan will be repaid in 12 equal monthly installments of \$9,456 and that the first payment will be due one month from today. How much of your third monthly payment will go toward the repayment of principal? (Prepare an amortization table)