Spring 2009 Name:

Quiz 2: Corporate Finance

Answer all questions and show necessary work. Please be brief. This is an open books, open notes exam.

1. Deuce Technologies, a computer software firm, is considering making an investment in database services. You have been asked to assess the cost of capital to use in analyzing this investment, and have been provided with the following information:

- Deuce has 150 million shares outstanding, trading at $ 20 a share. The firm has no conventional debt outstanding, but has lease commitments that are expected to be $ 150 million each year for the next 8 years.
- A regression of Deuce stock returns against the S&P 500 has generated a beta of 1.2 for the firm, but a separate analysis of publicly traded companies that operate in database services yields an unlevered beta of 0.90.
- Deuce Software has a rating of A from S&P, and the default spread for the rating is 2%.
- The ten-year treasury bond rate is 3% and the equity risk premium is 6%.
- The effective tax rate last year was 25%, but the marginal tax rate is 40%

Estimate the cost of capital for the database services project. (4 points)

2. Logan Chemicals has provided you with the following estimates of operating income for a new investment, which is expected to have a three-year life and require an initial investment of $400 million.

	Year 1	Year 2	Year 3
Revenues	$350	$450	$600
- Depreciation	$125	$100	$75
- Other Operating Expenses	$150	$200	$300
- Allocated G&A	$40	$40	$40
Pre-tax Operating Income	$35	$110	$185

You are also told that the all of the allocated G&A is fixed (and will continue even if this project is rejected). In addition, the project will require investments in accounts receivable and inventory that are expected to be 10% of revenues and be at the beginning of each year. The marginal tax rate is 40% and the cost of capital for the project is 10%. Estimate the net present value of this project. (3 points)

3. You are an independent IT consultant and you bill by the hour ($80/hour) and have the capacity to work 1500 hours in a year. As a result of the recession, you anticipate being able to work only 750 hours a year for the next two years; after year 2, you expect to be back working 1500 hours a year, at your regular rate. You have been approached by a company that wants to hire you as a long-term consultant, working 600 hours a year, for the next 5 years, at a reduced hourly rate of $50/hour. Your regular hourly rates are expected to stay constant over the next 5 years and you cannot work more than 1500 hours a year. Assuming that you bill at the end of each year and that your cost of capital is 15%, will you take the long-term offer (you can ignore taxes)? (3 points)