Fall 2007 Name:

Quiz 1: Equity Instruments

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

1. You have been asked to assess the value of a finite-life asset with an expected life of 5 years and constant cash flows over that life (with no salvage value at the end). You have been given the following income statement for the asset:

	Yrs 1-5
Revenues	$1,000
- Operating Expenses	$600
EBIT	$400
- Interest expenses	$100
Taxable Income	$300
- Taxes	$105
Net Income	$195

You can assume that the firm has no capital expenditures, depreciation or working capital needs; in other words, earnings are cash flows. The effective tax rate is also the marginal tax rate. The cost of capital for the asset is 10%.

a. Estimate the value of the asset. (2 points)

b. How would your answer to (a) change if you were told that the cash flows were real cash flows and that the cost of capital (of 10%) was a nominal cost of capital. (The expected inflation rate is 2%) (1 point)

2. Lundell Enterprises is an all-equity funded firm that operates in two businesses – publishing and entertainment – in two countries – the United States and Mexico. The breakdown of revenues (in millions of dollars) for the firm is provided below:

	US	Mexico
Publishing	$500	$250
Entertainment	$500	$750

You have collected the following information on the company:

a. The unlevered beta of being in the publishing business is 0.9, whereas the unlevered beta of being the entertainment business is 1.20.
b. The U.S. treasury bond rate is 4.5% and the ten-year Mexican government peso bond rate is 7.5%
c. Mexico is rated AA for local currency and foreign currency borrowings and the typical default spread for AA rated countries is 0.50%.
d. Mexican equity markets are twice as volatile as the Mexican government bond.
e. The equity risk premium for a mature market is 4%.

a. Estimate the cost of equity for Lundell's publishing business in the US (in US $). (1 point)

b. Estimate the cost of equity in peso terms for Lundell's Mexican entertainment operations. (2 points)

c. Now assume that Lundell plans to sell its Mexican operations and return the cash to stockholders. Estimate the cost of equity (in US $) for the company after the transaction. (You can assume that the Enterprise Value to Sales ratio is 1.5 for the publishing business and 2.5 for the entertainment business) (2 points)

Multiple choice questions on Cash flows (only one choice per problem) (1/2 point each)

3a. If you capitalize operating leases and treat them as debt, which of the following will always occur?

i. The cost of equity will increase because of the higher debt ratio.
ii. The operating income will increase because you will be adding back operating lease expenses.
iii. The debt ratio will increase.
iv. The return on capital will go up.
v. None of the above.

3b. The primary reason for capitalizing R&D expenses is the following:

i. To reward companies that invest a lot in R&D
ii. To punish companies that invest a lot in R&D
iii. To measure the free cash flow to the firm more precisely
iv. To get a higher return on capital
v. To get a better sense of how much the company is reinvesting for future growth
vi. None of the above

3c. For most companies, the effective tax rate is lower than the marginal tax rate. For such companies, using the effective tax rate (instead of the marginal tax rate) in perpetuity to compute the after tax operating income will result in which of the following?

i. We will overstate the value of the company
ii. We will understate the value of the company
iii. It should have no effect on the value of the company

3d. If a company grows primarily through acquisitions, and we are trying to estimate the cash flows to the firm, which of the following estimation choices is likely to yield the best estimate of value?

i. Ignore the growth from acquisitions when computing projected earnings and include acquisitions in your forecasted capital expenditures.
ii. Count the growth from acquisitions when computing projected earnings and exclude acquisitions in your forecasted capital expenditures.
iii. Ignore the growth from acquisitions when computing projected earnings and exclude acquisitions in your forecasted capital expenditures
iv. Count the growth from acquisitions when computing projected earnings and include acquisitions in your forecasted capital expenditures
v. None of the above