

Quiz 2: Corporate Finance

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

1. You have inherited a house from your eccentric aunt (the one that Bill Silber uses in his examples). While you can sell the house for \$ 2 million today (tax free), you are considering renovating the house and renting it out for the next 5 years in the hope that the real estate market will improve. You estimate that it will cost you \$ 300,000 to renovate the house, that this entire investment can be depreciated straight line over the next 5 years and that your annual rental revenues will be \$ 180,000 each year for that period; your tax rate is 40%. In addition, maintenance costs and property taxes will be \$ 30,000 a year for the next 5 years and they are tax deductible.

a. Estimate the after-tax cash flows you will generate from the rental each year for the next 5 years. (1 point)

b. At the end of year 5, you hope to sell the house. Assuming your discount rate is 10%, what minimum price would you need to get for the house at year 5 to justify the renovation/rental option? (You can ignore taxes on the house sale price) (3 points)

2. Novo Telecom is considering a major infrastructure investment, requiring \$ 150 million in up-front investment, and cash flows for 10 years. The analyst who worked through the analysis has concluded that the net present value of the investment is \$ 20 million. On reviewing his numbers, though, you note that he depreciated the initial investment (\$150 million) straight line over 5 years to a salvage value of zero. Based on your reading of the tax law, you believe that the investment should be depreciated straight line over 10 years to a salvage value of \$ 30 million. If your cost of capital is 8% and your tax rate is 40%, estimate the correct net present value with the changed depreciation. (3 points)

3. Pawtucket College is a tax-exempt community college with excess capacity on its computer servers now. Based on existing usage and growth in demand, it will have to invest \$ 4 million in additional server space at the end of year 5. It has been approached by a local business that is interested in leasing some of the excess server space for the next 5 years for a fixed, annual fee. This will, however, require the college to invest \$ 4 million in additional server space at the end of year 2. What is the minimum that Pawtucket College should charge the local business as an annual fee for the next 5 years, if the discount rate is 12%?
(3 points)