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 been asked to analyze whether Telco Inc, a computer manufacturer, should invest in producing new software.
   - Telco has already spent $2 million developing pieces of the software; this expense was capitalized and will be depreciated straight line over the next four years.
   - Telco will have to invest an additional $5 million if it wants to commercially develop the software, and this investment will also be depreciated straight line over four years to a salvage value of $1 million at the end of the 4th year.
   - Based upon a market study, Telco concludes that it can generate revenues of $6 million every year for the next 4 years; operating expenses (other than depreciation) are expected to be 60% of revenues each year.
   - Telco does not expect its overall annual G&A expenses, which are $5 million, currently to change as a result of investing in the software business, but it plans to allocate 10% of these expenses to this project.
   - Telco has an unlevered beta of 0.90 (bottom-up beta for computer manufacturers) but the unlevered beta for computer software companies is 1.50. The market value of equity for Telco is $80 million and the market value of debt is $20 million. Telco plans to maintain this debt to capital ratio for this project. Telco is BBB rated and the default spread on BBB rated bonds is 2%.
   - The riskless rate is 5% and the market risk premium is 4%. The tax rate is 40%.
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Name:  

a. Estimate the cost of capital for this project.  

(2 points)  

b. Estimate the incremental cash flows on this project.  

(3 points)
c. Estimate the net present value of this project. (2 points)
2. Now assume that you are comparing investing in this project with another (and mutually exclusive) investment that Telco can make in expanding its computer business. The expansion would require an initial investment of $8 million and generate $2 million in after-tax cash flows each year for the next 8 years. Which investment (computer software or expansion) should Telco take? (Assume that I have considered all relevant cashflows including depreciation in coming up with after-tax cashflows) (3 points)