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 assess whether it makes sense for MagnaTech Inc. to invest in a new telecomm investment. The initial investment is expected to be $ 70 million and the project is expected to generate income for the next 10 years, with the income statement below providing a measure of revenues and expenses (each year):

Revenues	38
- Operating Expenses	16
- Depreciation	7
- Allocated G&A	4
= EBIT	11
- Interest Expenses	4
= EBT	7
- Taxes	2.1
= Net Income	4.9

If the cost of capital for MagnaTech is 12% and 75% of the allocated G&A expenses are non-incremental, estimate the net present value for this project.

2. You own a restaurant and are considering buying a liquor license. You estimate that it will cost you $ 150,000 to buy a five-year license and construct a bar, and that you will generate $ 30,000 in after-tax cashflows each year for the next five years.
   a. If your cost of capital is 15%, estimate the net present value of buying a liquor license. (There is no salvage value at the end of the 5^{th} year)

   b. Assume now that the bar will bring in additional customers to your restaurant. If your after-tax operating margin is 60%, how much additional revenue would you have to generate each year in your restaurant for the liquor license to make economic sense?

3. You own a minor-league baseball team and are considering two competing bids for food service in your stadium.
   - You could enter into a five-year contract with a national food vendor who will pay you $ 150,000 upfront and $ 40,000 each year for the next 5 years. The payment is guaranteed and there is no chance that the vendor will default on payments.
   - You could enter into a 12-year joint venture with a local food vendor, where you will receive 50% of the profits from food sales at the stadium, in return for an initial investment of $ 80,000. The profits from food sales are expected to be $ 150,000 a year for the next 12 years.

   If the riskfree rate is 5%, the unlevered beta of food service companies is 1.50 and the market risk premium is 4%, which option is the more attractive one? (You can assume that profits = cashflows, the firm has no debt and that there are no taxes)