Spring 2023 Name:

Quiz 2: Corporate Finance

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

1. You have been asked to compute the cost of capital for Steinbach Enterprises, and have been provided with the following information:
   a. The company has 100 million shares outstanding, trading at $16/share. The book value of equity is $1 billion.
   b. The company also has $500 million in debt outstanding, with ten years left to maturity and expected interest expenses of $12 million a year.
   c. The current cost of equity for the firm is 12%; the current riskfree rate is 3%, and based upon its bond rating, Steinbach's default spread is 2%.
   d. The marginal tax rate is 25%.

   Estimate the cost of capital for Steinbach. (3 points)

2. You are helping Helo Inc, a trucking company on a capital budgeting project. The project requires an initial investment of $300 million in a trucking facility, which will be depreciated straight line, over a 3-year life, to a salvage value of $60 million. The expected revenues and EBITDA margin for the next three years are below:

Year	Now (0)	1	2	3
Revenues		$1,000	$1,200	$1,500
EBITDA Margin		6.00%	12.00%	18.00%

The tax rate is 25%, and the non-cash working capital is expected to be 5% of revenues, with investments occurring at the start of each year. Estimate the after-tax cash flows <u>on this project over its three year lifetime</u>, including today's cash flows. (You can assume that Helo is and will continue to be a profitable company) (3 points)

3. You work for a non-profit hospital that is being buried by data storage requirements, and you have researched alternatives, and come up with two options. In the first option, you will invest $40,000 in data storage facilities, with a 10-year life, where you will pay $2000/year to maintain the facilities. In the second, you will outsource data storage to a data storage company that will charge you a fixed annual fee for the next ten years for providing the service. If the hospital pays no taxes and faces a cost of capital of 12%, how low would the annual fee have to be, for you to outsource data storage? (2 points)

4. ShowStream is a nascent streaming company, with 10 million subscribers, paying \$50/year as fees. ShowStream is considering spending \$150 million on a new show that it believes will increase the number of subscribers to 11.5 million. Assuming that the show's subscriber effect will last three years, and that the cost of the new show will be amortized straight-line over 3 years to a salvage value of zero, estimate the NPV of the new show, if the cost of capital is 12%. (The tax rate is 20%) (2 points)