Spring 2023 Name:

Quiz 3: Corporate Finance

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

1. Wallaby Inc. is an all-equity funded chemical company with a cost of capital (and equity) of 10.50%. It is considering borrowing money at a default spread of 2% (over the riskfree rate) and moving to a debt to capital ratio of 20%. If the riskfree rate is 3%, the ERP is 6% and the marginal tax rate is 15%, estimate the cost of capital at a 20% debt to capital ratio. (3 points)

2. Scofflaw Inc. is a steel company with a market capitalization of $750 million and total debt outstanding of $250 million. As a result of its debt load, the company is currently rated BBB, with a default spread of 2.00% and a likelihood of bankruptcy of 10%. If the bankruptcy cost (direct + indirect) is 30% of total firm value, estimate the value of the firm, if it pays down all off its debt and becomes equity-funded. (The marginal tax rate is 25%, and the company has enough earnings to cover its interest expenses) (2 points)

3. Cresskill Corporation currently has 800 million shares outstanding, trading at \$10/share, and \$2 billion in debt outstanding, giving it a cost of capital of 8.75%. The company is considering borrowing an additional \$3 billion and buying back shares at \$12/share, expecting its cost of capital to drop to 8%, after the buyback. Estimate the value per share of the remaining shares in the company. (3 points)

4. LiveStream Cinema is an movie company that currently has a market capitalization of $ 4 billion and two debt issuances - $750 million with a 2-year duration and $250 million with a 6-year duration; it has estimated the duration of its existing assets to be 4 years. It is considering borrowing an additional billion and expanding into the theater business, with a duration of ten years. If the objective is to match the duration of all of its debt to the duration of all of its assets, after the expansion, what should the duration of the new debt be? (2 points)