Quiz 3: Corporate Finance

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

1. Corinthian Corporation, a firm that is currently over levered with a debt to capital ratio of 80% and a pre-tax cost of debt of 8%, is considering a restructuring that will reduce its debt to capital ratio to 40% and its pre-tax cost of debt to 6%.

	Current	Recapitalized
Debt/(Debt + Equity)	80%	40%
Cost of debt (Pre-tax)	8%	6%
Cost of equity	24.10%	

If the marginal tax rate is 25%, the risk free rate is 2.5% and the equity risk premium is 6%, estimate the cost of capital after the restructuring. (3 points)

2. Nestor Media is an entertainment company with 75 million shares trading at \$10/share and \$250 million in debt outstanding. The firm is considering borrowing money to buy back 25 million shares at \$11/share, and believes that this recapitalization will lower its cost of capital from 8% to 7.50%. Assuming a 2.5% growth rate in perpetuity, estimate the value per share after the recapitalization. (3 points)

3. Lenox Inc. is a company that operates in two businesses, hotels and technology, and its current financial balance sheet (in market value terms) is below:

Business	*Value ($ mil)*	*Duration*		*Value ($ mil)*	*Duration*
Hotels	$ 800.00	11	Debt	$ 200.00	4
Technology	$ 400.00	2	Equity	$ 1,000.00	

Lenox is considering borrowing $800 million, using a combination of 8-year and 3-year zero coupon bonds, and invest in its technology business If it wants its total debt to have the same duration as all of its assets after the expansion, how much of the new debt should be 8-year zero coupon debt? (4 points)