Spring 2016 Name:

Quiz 3: Corporate Finance

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

1. Severino Enterprises is a chemical company that has 10 million shares outstanding, trading at \$15 a share **and no debt**; its **current cost of capital is** 7.4%. The firm is has announced that it is borrowing \$50 million and will be paying a special dividend with that money. If the risk free rate is 2%, the equity risk premium is 6% and the marginal tax rate is 40%, estimate how high the pretax cost of borrowing has to be for the company's cost of capital to remain unchanged. (4 points)

Spring 2016 Name:

2. Dixie Oil is a small, publicly traded oil company that has been hard hit by the drop in oil prices. It has 20 million shares outstanding, trading at \$10/share, and has debt outstanding of \$800 million. The company's rating has dropped to CCC and its cost of capital is 10%. The firm has reached a deal with debt holders to exchange \$300 million in debt for 30 million new shares, an action which it believes will raise the bond rating to BBB and reduce the cost of capital to 9%.

a. Assuming that the savings (from a lower cost of capital) last forever (with no growth), estimate the change in firm value as a result of the recapitalization. (1 point)

b. Estimate the value per share after the recapitalization. (2 points)

Spring 2016 Name:

3. Drexel Inc. is a furniture manufacturer with a market capitalization (market value of equity) of \$1 billion and \$500 million in debt outstanding (with a duration of 8 years). It is considering acquiring Robert Stores, a furniture retailer, for \$1 billion and plans to fund this acquisition entirely with debt. Your research has led you to conclude that the duration of furniture manufacturers is 10 years and that of furniture retailers is 4 years.

a. What will the duration of Drexel be, after the merger? (1 point)

b. If your objective is to end up with total debt of roughly the same duration as your total assets for the post-merger firm, what does the duration of your new debt have to be to accomplish this objective? (2 points)