Quiz B for 2:30 Class: 10/10/12 Name ____________________________

Note: There are no points for solving this problem. All points are for setting up all relevant equations, plugging in all relevant numbers, and stating what you want to solve for (if you are not simply solving the equation).

Assume that Helgen Enterprises always has earnings before interest and taxes of $10 million per year and that the total value of Helgen is currently $100 million. Assume also that Helgen's current interest expense equals $10 million per year. Finally, assume that the corporate tax rate is 35%, the personal tax rate on dividends and capital gains is 10%, and the personal tax rate on interest income is 25%.

a. Calculate Helgen's value if it issues an additional $5 million of debt and uses the proceeds to repurchase $5 million of shares.

b. Calculate Helgen's value if it issues an additional $10 million of equity and uses the proceeds to retire $10 million of debt.

Comment: Think very carefully before answering parts c. and d. below.

c. How would an increase in the corporate tax rate affect Helgen's optimal level of debt? Briefly explain.

d. How would an increase in the personal tax rate on interest income affect Helgen's optimal level of debt? Briefly explain.

Wall Street Journal Questions are on the back of this page.