Quiz B for 1:00 Class: 2/6/13   Name _____Key_____

Assume that the firm where you work is trying to decide whether or not to build a new retail store. Your boss has asked you to check a few numbers by calculating (or setting up to calculate) the store's <u>unlevered net income</u> and <u>free cash flow</u> both <u>today</u> and <u>four years from today</u>.

The store could be built at a cost of $45 million today, but it would be depreciated over the next few years using the 7-year MACRS class. The $45 million would come from using $18 million of available cash, issuing $15 million of bonds, and issuing $12 million of new shares of common stock. The facility would be built on land which was purchased one year ago at a cost of $9 million. This land could be sold today for an after-tax cash flow of $6 million. If the store is built, it would generate revenues of $120 million a year from today and would grow at a rate of 2% per year after the first year. The cost of goods sold would equal 70% of revenues. The cost of salaries and utilities would equal $24 million per year. The corporate tax rate equals 35% and the working capital (millions) associated with the project is as follows:

	t = 0	t = 1	t = 2	t = 3	t = 4	t = 5
Cash	0.0	2.1	2.4	3.0	3.45	3.6
Inventory	4.5	10.5	11.1	11.4	12.3	12.45
A/R	0.0	1.5	1.95	2.1	2.4	2.7
A/P	4.0	9.6	10.5	11.1	11.7	12.0

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

$$UNI_0 = 0^{\;+3}$$

$$CE_0 = 45 + 6 = 51 \quad {}^{+3\;+3}$$

$$+1 \left(\Delta NWC_0 = (4.5^{+2} - 4.0^{+2}) - 0 = 0.5 \right.$$

$$+1 \left(FCF_0 = 0 + 0 - 51 - 0.5 = -51.5 \right.$$

$$R_4 = 120^{+3} (1.02)^{3\;+3} = 127.345$$

$$E_4 = .7^{+3}(127.345) + 24^{+3} = 113.1415$$

$$D_4 = .1249^{+3}(45^{+3}) = 5.6205$$

$$+1 \left(UNI_4 = (127.345 - 113.1415 - 5.6205)(1 - .35^{+3}) = 5.579 \right.$$

$$NWC_4 = 3.45^{+1} + 12.3^{+1} + 2.4^{+1} - 11.7^{+1} = 6.45$$

$$NWC_3 = 3.0^{+1} + 11.4^{+1} + 2.1^{+1} - 11.1^{+1} = 5.4$$

$$+1 \left(\Delta NWC_4 = 6.45 - 5.4 = 1.05 \right.$$

$$+1 \left(FCF_4 = 5.579 + 5.6205 - 0 - 1.05 = 10.154 \right.$$