Finance 5360 Quiz A: 7/20/15   Name _____Key_____

Set up the calculations need to determine <u>unlevered net income</u> and <u>free cash flow</u> for the new facility both <u>today</u> and <u>three years from today</u>. Note: You only need to set up all the appropriate equations and fill in the correct numbers. You don't have to solve anything.

Wal-Mart is considering building a new store in the Waco area. According to a feasibility study commissioned by Wal-Mart, the new store will generate an estimated $100 million of sales a year from today. However, since some of the customers shopping at the new store would have made identical purchases at other existing Wal-Mart stores, Wal-Mart's total sales will only increase by $85 million a year from today. Sales are expected to increase by 3.5% per year through the store's closing 20 years from today. The $5 million fee for the feasibility study is due today. The new store will have fixed selling and administrative costs of $15 million per year and variable costs (including the cost of goods sold) will equal 75% of sales. Suitable land will cost $2 million to acquire and the building itself will cost $20 million. The building will be depreciated using the 15-year MACRS class starting a year from today. Wal-Mart's marginal tax rate equals 35%. Changes in Wal-Mart's short-term assets and liabilities (in millions) for the next five years if the new store is built vary by year as follows (Year 0 is today, Year 1 is a year from today, Year 2 is two years from today, etc.)

Year	0	1	2	3	4	5
Cash	0.00	1.29	1.32	1.33	1.31	1.36
AR	0.00	1.2	1.23	1.32	1.43	1.51
Inv	0.00	8.03	8.32	8.2	8.72	9.31
AP	0.00	6.69	6.82	7.02	7.6	7.49
Short-term Debt	1.35	1.38	1.37	1.37	1.47	1.47

+4 ($FCF_0 = \overset{+1}{0} + \overset{+1}{0} - \overset{+4}{2} - \overset{+4}{20} - \overset{+1}{0}$ (15)

+4 ($UNI_3 = (R_3 - E_3 - D_3)(1 - \overset{+4}{.35})$ (8)

$R_3 = \overset{+4}{85}(\overset{+4}{1.035})^{\overset{+4}{2}}$ (12)

$E_3 = \overset{+4}{.75}(R_3) + \overset{+4}{15}$ (8)

$D_3 = \overset{+4}{20}(\overset{+4}{.0855})$ (8)

+4 ($FCF_3 = UNI_3 + D_3 - 0 - \Delta NWC_3$ (4)

+4 ($\Delta NWC = (1.33 + 1.32 + 8.2 - 7.02) - (1.32 + 1.73 + 8.32 - 6.82)$ (20)
        +2   +2   +2   +2   +2   +2   +2   +2