Finance 5360 Quiz B: 7/20/15 Name Key

Set up the calculations need to determine unlevered net income and free cash flow for the new facility both today and three years from today. 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 $300 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 $255 million a year from today. Sales are expected to increase by 2.5% per year through the store's closing 20 years from today. The $15 million fee for the feasibility study is due today. The new store will have fixed selling and administrative costs of $45 million per year and variable costs (including the cost of goods sold) will equal 70% of sales. Suitable land will cost $6 million to acquire and the building itself will cost $60 million. The building will be depreciated using the 10-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	3.87	3.96	3.99	3.93	4.08
AR	0.00	3.60	3.69	3.96	4.29	4.53
Inv	0.00	24.09	24.96	24.60	26.16	27.93
AP	0.00	20.07	20.46	21.06	22.80	22.47
Short-term Debt	4.05	4.14	4.11	4.11	4.41	4.41

+4 ($FCF_0 = 0 + 0 - 6 - 60 - 0$ (+1, +1, +4, +4, +1) (15)

+4 ($UNI_3 = (R_3 - E_3 - D_3)(1 - .35)$ (+4) (8)

$R_3 = 255(1.025)^2$ (+4, +4, +4) (12)

$E_3 = .7(R_3) + 45$ (+4, +4) (8)

$D_3 = 60(.1440)$ (+4, +4) (8)

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

+4 ($\Delta NWC_3 = (3.99 + 3.96 + 24.60 - 21.06) - (3.96 + 3.69 + 24.96 - 20.46)$ (+2, +2, +2, +2, +2, +2, +2, +2) (20)