Session 30: Post Class tests

1. In the dividend discount model, you value the equity in a firm by discounting the expected dividends at the cost of equity. The model therefore cannot be used to value non-dividend paying stocks.
   a. True
   b. False

2. With FCFE models, you estimate potential dividends, by computing cash flows after debt payments and then discounting at the cost of equity. Assume that you value the same company using both the dividend discount and FCFE models, will you get the same value for equity?
   a. Yes
   b. No

3. Maxor Inc. is a manufacturing firm that generated $120 million in EBITDA in the most recent year. The tax rate was 30%, depreciation charges were $30 million and capital expenditures were $45 million for the year. If the non-cash working capital increased by $10 million during the year, estimate the free cash flow to the firm for the year.
   a. $8 million
   b. $38 million
   c. $58 million
   d. $66 million
   e. None of the above

4. In the FCFF model, what are you valuing when you take the present value of FCFF at the cost of capital?
   a. A value for the equity in the firm
   b. A value for assets in the firm
   c. A value for all assets whose earnings are shown as a part of operating income.
   d. A value for the assets in place for the firm
   e. None of the above.

5. When valuing a firm, you discount the FCFF at the cost of capital. Assume that the firm that you are valuing has an actual debt ratio of 10% and a target debt ratio of 40%, which it is planning to move to gradually over the next 10 years. What debt ratio should you use to compute the cost of capital for this firm?
   a. The actual debt ratio (10%)
   b. The target debt ratio (40%)
   c. An average of the actual and target debt ratios (25%)
   d. The expected debt ratio each year to get a cost of capital each year
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1. **b. False.** Even if a firm is not paying dividends right now, you may expect it to start paying dividends in the future and you can value the stock based on expected future dividends.

2. **b. No.** When dividends are different from FCFE, there can be value effects from either under paying dividends or over paying dividends. For instance, if a firm pays less in dividends than FCFE and proceeds to waste the cash, the value of equity can be lower from the dividend discount model.

3. **b. $38 million.**
   
   \[
   \text{EBIT} = 120 - 30 = 90 \text{ million} \\
   \text{EBIT} (1-t) + \text{Depreciation} - \text{Cap Ex} - \text{Change in non-cash WC} = 90 (1-.3) + 30-45 -10 = 38 \text{ million}
   \]

4. **c. A value for all assets whose earnings are shown as a part of operating income.** Since the FCFF builds off operating income, you value only those assets that are part of operating income.

5. **d. The expected debt ratio each year to get a year-specific cost of capital.**
   The cost of capital can and often should be different each year in a valuation.