CHAPTER 1 ANSWERS

1) C. While it's true that valuation methods may vary by sector, a comparable companies analysis focuses on a single sector.

2) B. EV is a financial metric that potential acquirers often use to measure a company's size, as it includes debt in its valuation.

3) C. An 8-K can be helpful when performing a comparable companies analysis, as it contains material corporate events or changes (e.g., earnings announcements, purchase/sale agreements, or capital markets transactions).

4) C. A proxy statement contains information regarding matters on which shareholders are expected to vote as well as a basic shares outstanding count that may be more current than what is on the latest 10-K or 10-Q. A company's capital expenditures can generally be found on the statement of cash flows included in the 10-K, 8-K, or 10-Q.

5) C. Under the TSM method, only *in-the-money* options and warrants are calculated toward share dilution. In this case the exercise price is $20.00; this is *higher* than the current share price, so the options are not counted toward share dilution. Therefore the share count remains unchanged at 100.0mm.

6) B. A cash-pay convertible bond is structured so that it can be exchanged for a defined number of shares of the issuer's common stock under certain circumstances. In accordance with the If-Converted method, when performing trading comps, in-the-money convertibles are converted into additional shares. To account for the forgone interest expense, net income must be adjusted higher.

7) C. Use the treasury stock method to calculate the diluted shares outstanding. First note that the options exercise price of $20.00 is lower than the current share price of $40.00, so these options are in-the-money and will be counted toward the diluted share count. The option holders must pay $1,000 to exercise their shares (50.0mm x $20.00). The company will take the proceeds and purchase 25.0mm new shares at the current share price ($1,000 / $40). Note that the exercise price of the warrants is $45.00, which is above the current share price; therefore the warrants are not counted in the diluted shares outstanding.

   Equity value is the share price multiplied by the fully diluted shares outstanding number. The new shares calculated with the treasury stock method must be added to the basic shares outstanding number (25.0mm + 400.0mm). The equity value is $1,700.0mm ($40.00 x 425.0mm).

8) B. The formula for enterprise value is Equity Value + Total Debt + Preferred Stock + Non-controlling interest – Cash. In this case the value remains the same despite the change in capital structure. The increase in equity value is offset by the decrease in debt.

9) D. The formula for enterprise value is Equity Value + Total Debt + Preferred Stock + Non-controlling interest – Cash. In this case the enterprise value is $1,500.0mm (1,400 – 200 + 300). A $200mm increase in cash would bring the enterprise value down to $1,300.0mm (1,400 – 400 + 300).

10) B. Gross margin is calculated as gross profit (revenue – COGS) divided by revenue. Gross profit of $100.0mm (200 – 100) divided by revenues is 50% (100.0mm / 200.0mm). Operating expenses have no effect on the gross profit margin.

11) C. EBITDA is an important financial measure that is widely used as a proxy for operating cash flow, as it adjusts for depreciation and amortization, which are both non-cash items. EBITDA is also free from differences in capital structure, as it doesn't take interest or tax expenses into account.

12) C. ROIC is a valuable measure, as it is a good indication of how a company is utilizing its productive assets.

$$\text{ROIC} = \frac{\text{EBIT}}{\text{Average Net Debt + Equity}}$$

13) A. The following is the formula for calculating the dividend yield:

$$\text{Implied Dividend Yield} = \frac{\text{Most Recent Quarterly Dividend Per Share} \times 4}{\text{Current Share Price}}$$

14) A. CAGR is calculated as follows: (Ending value / Beginning value) ^ (1/Ending Year – Beginning Year) – 1) So, (350 / 50) ^ (1/ (2012 – 2005)) – 1)

15) B. EBITDA is calculated as EBIT plus D&A. The debt to EBITDA ratio is calculated as Debt / EBITDA (75 / 250).

16) C. Baa1 is considered medium grade according to Moody's rating scale.

17) A. First calculate 2011 YTD revenues by adding each quarter's revenues ($745). Calculate the "current stub" or the revenues for 2012 so far ($425). Then calculate the "prior stub" or the revenues you want to replace with the more recent quarters (Q1 2011 and Q2 2011) ($350). Finally, add the current stub to 2011 revenues and subtract the prior stub: $745 + $425 – $350 = $820.0m. Subtract 2011 revenue from LTM revenue: $820 – $745.

18) D. Irregular charges on an income statement are referred as non-recurring items. Goodwill impairment is an example of a non-recurring item.

19) C. Normalized net income adjusts for non-recurring items like a restructuring charge. Normalized net income is calculated as follows.

Income Statement	
Sales	$1,200
COGS	500
SG&A	100
Operating Income	600
Interest Expense	50
Pre Tax Income	550
Income Taxes	165
Net Income	**385**

20) A. The EBITDA margin is calculated as (EBITDA / Sales).

21) C. EBITDA is considered a proxy for a company's cash flow.

22) D. A company's capitalization ratio is calculated as follows: (Debt + Preferred Stock + Noncontrolling interest +Equity).

23) C. Many sectors employ specific valuation multiples in addition to, or instead of, the traditional metrics. A common metric for retail is EV / Square footage.

24) B. When a company has no earnings, EV / Sales can be a meaningful reference point for valuation.

25) D. Because a comparable companies analysis is market based, information is based on actual public market data, reflecting the market's growth and risk expectations. However, during periods of irrational market behavior, valuations could be skewed.

26) A. Theoretically, enterprise value is considered independent of capital structure, meaning that changes in a company's capital structure do not affect its enterprise value. For example, if a company raises additional debt that is held on the balance sheet as cash, its enterprise value remains constant because the new debt is offset by the increase in cash.

27) B. EBITDA margin is calculated as follows: Add D&A back to operating income to arrive at EBITDA ($250.0m plus $50.0m). Divide EBITDA by sales ($300.0m / $800.0m).

28) D. To determine COGS, work backwards. Subtract D&A from EBITDA to get operating income ($300.0m minus $50.0m). Next add SG&A to operating income to get a gross profit number ($250.0m plus $250.0m). Finally, subtract the gross profit from sales to arrive at COGS ($800.0m minus $500.0m).