Core Financial Modeling – Certification Quiz Questions

Module 6 – Equity Value, Enterprise Value, and Valuation Multiples

1. Company A acquires Company B for an Equity Purchase Price of $500, and it issues $250 of Common Stock and $250 of Debt to fund this deal. Company B's Assets (all of which are "operational") are worth $350, and it has no Liabilities. Of the purchase premium, $100 is allocated to Goodwill, and $50 is allocated to Other Intangible Assets.

   In the first year following the deal, Company A generates a total of $100 in Net Income, and it issues $50 in Common Dividends to its Common Shareholders and $50 in Preferred Dividends to its Preferred Stockholders.

   How do Company A's Current Equity Value and Current Enterprise Value change from beginning to end?

   a. Current Equity Value is up by $250, and Current Enterprise Value is up by $500.

   b. Current Equity Value is up by $300, and Current Enterprise Value is up by $500.

   c. Current Equity Value is up by $500, and Current Enterprise Value is up by $350.

   d. Current Equity Value is up by $250, and Current Enterprise Value is up by $350.

2. A high-growth technology startup, Unicorn Co., has a combination of common shares outstanding, options issued to employees, Restricted Stock Units (RSUs), and a Hedged Convertible Bond that it set up in a "capped call" transaction, as shown below:

Unicorn Co. - Diluted Equity Value

($ in Millions Except Per Share Data)

Unicorn Co. - Equity Value Calculation:

Company Name:	Unicorn Co.
Current Share Price:	$ 50.00
Basic Shares Outstanding (Millions):	100.0
Diluted Shares Outstanding (Millions):	

Basic Equity Value:

Diluted Equity Value:

Diluted Shares Calculations:

Options - Treasury Stock Method:

Name:	Number (Millions):	Exercise Price:	Dilution:
Tranche A:	10.000	$ 30.00	
Total:	**10.000**		

Restricted Stock Units (RSUs) and Other Sources:

Name:	Number (Millions):	Exercise Price:	Dilution:
Restricted Stock Units (RSUs):	6.000		
Total:	**6.000**		

Convertible Bonds and Hedged Convertibles:

Convertible Bond Principal Amount ($ in Millions):	$ 200.0
Conversion Price ($ as Stated):	$ 10.00
Potential Dilutive Shares (# Millions):	20.000
Actual Dilutive Shares:	
Capped Calls - # Call Options Purchased:	20.000
Capped Calls - Exercise Price of Call Options:	$ 10.00

Name:	Number (Millions):	Exercise Price:	Dilution:
Capped Calls - Sold Warrants:		$ 35.00	
Total:			

Net Dilution from Convertible Bonds and Hedges:

In addition to the Hedged Convertible Bond, this company has $300 million of Cash and traditional Debt with a Face Value of $500 million, Book Value of $490 million, and Market Value of $520 million.

Based on this information and the screenshot above, what are the company's Current Equity Value and Enterprise Value (assuming full dilution in both)?

a. Equity Value = $6.500 billion; Enterprise Value = $6.720 billion.

b. Equity Value = $5.800 billion; Enterprise Value = $6.000 billion.

c. Equity Value = $6.500 billion; Enterprise Value = $6.690 billion.

d. Equity Value = $5.800 billion; Enterprise Value = $6.020 billion.

3. You are calculating Unlevered Free Cash Flow (UFCF) for Vivendi, a French media/telecom company that follows the IFRS accounting standards.

   You plan to start the calculation with EBIT, multiply by (1 – Tax Rate), add back non-cash charges such as Depreciation & Amortization, add or subtract Deferred Taxes and the Change in Working Capital, and subtract CapEx. You will also deduct the full Operating Lease Expense.

   Shown below are the main components of this calculation, all taken from the company's Cash Flow Statement and the notes to the financial statements:

(in millions of euros)	Note	Year ended December 31, 2019	2018
Operating activities			
EBIT	4	1,381	1,182
Adjustments	21	779	432
Content investments, net		(676)	(137)
Gross cash provided by operating activities before income tax paid		***1,484***	***1,477***
Other changes in net working capital		67	(28)
Net cash provided by operating activities before income tax paid		***1,551***	***1,449***
Income tax (paid)/received, net	6.2	(283)	(262)
Net cash provided by operating activities		**1,268**	**1,187**
Investing activities			
Capital expenditures	3	(413)	(351)

(in millions of euros)	Note	Year ended December 31, 2019	2018
Items related to operating activities with no cash impact			
Amortization and depreciation of intangible and tangible assets	3	744	453
Change in provision, net		30	(25)
Other non-cash items from EBIT		-	4
Other			
Income from equity affiliates - operational		(4)	(7)
Proceeds from sales of property, plant, equipment and intangible assets		9	7
Adjustments		**779**	**432**

Which of the following is a POTENTIAL PROBLEM with this UFCF calculation if you use these numbers from the statements as-is, without any adjustments?

a. You can't necessarily add back the entire D&A figure because under IFRS, some of it will be the Depreciation or Amortization element of the company's Operating Lease Expense.

b. You need to adjust EBIT so that it deducts the Interest element of the Operating Lease Expense.

c. Some of the Amortization may be the Amortization of Financing Fees or Debt Discounts, so you should not add back those portions.

d. "Content investments, net" should not count as a part of the Change in Working Capital because non-media/telecom companies do not have this line item.

e. All of the above.

f. Answer choices 1 and 2.

g. Answer choices 1, 2, and 3.

h. Answer choices 1, 2, and 4.

4. Which of the following statements does NOT describe a valid similarity or difference between EBIT and EBITDA?

a. EBIT represents core, recurring business profitability before the impact of capital structure and taxes; EBITDA is similar but corresponds to business cash flow from operations rather than profitability.

b. EBIT may be more relevant when CapEx is important to the company or when you *want* to reflect the partial impact of CapEx; EBITDA is better when CapEx is less significant or when you *want* to normalize and ignore the impact of CapEx.

c. EBIT deducts the full Operating Lease Expense, but EBITDA does not because of the add-back for Depreciation & Amortization.

d. Both EBIT and EBITDA pair with Enterprise Value in valuation multiples, but Enterprise Value may be calculated slightly differently depending on the accounting system (U.S. GAAP vs. IFRS).

e. Both EBIT and EBITDA should be adjusted for any non-recurring charges that affect Operating Income on the Income Statement.

f. Using EBITDAR rather than EBIT or EBITDA would solve some of the comparability problems for both metrics, especially when comparing companies that use different accounting systems.

5. Assume that a U.S.-based company has Common Stock, Preferred Stock, Cash, and Debt in its capital structure. It also has on-Balance Sheet Operating Lease Assets and Liabilities.

   You calculate Current Enterprise Value (TEV) the traditional way, i.e., by starting with Current Equity Value (Eq Val), subtracting Cash, and adding Debt and Preferred Stock.

   Which of the following valuation multiples is either INVALID or VALID BUT NOT RECOMMENDED for this company?

   a. (TEV + Operating Lease Liabilities) / EBITDAR

   b. Eq Val / Net Income to Common

c. (Eq Val + Preferred Stock) / Net Income

d. TEV / EBIT

e. Eq Val / Free Cash Flow

f. TEV / Unlevered Free Cash Flow

g. Eq Val / Common Shareholders' Equity