

**Solutions to Practice Quiz**

**Chapter 12 – Using Accounting Information in Equity Valuation**

Multiple Choice

Identify the answer that BEST completes the statement or answers the question.

1. Smith & Sons has a beta of 1.4. The risk-free rate of return is 3.4%, and the equity-risk premium is 4.2%.

How much is the company's cost of equity using the capital asset pricing model?

- a. 5.88%
- b. 9.28%
- c. 10.64%
- d. 8.96%

Answer: b

Rationale:  $(3.4\% + [1.4 \times 4.2\%])$

2. The Claremont Company determined its cost of equity capital to be 8.3%. The company's free cash flow to equity in its terminal year was \$174,000 based on a 5-year forecast horizon. The risk-free rate of return was 3.5% and the expected rate of inflation is 2.5%.

What is the firm's terminal value?

- a. \$2,096,386
- b. \$ 870,000
- c. \$3,000,000
- d. \$6,960,000

Answer: c

Rationale:  $(\$174,000 / [0.083 - 0.025])$

3. The income statement for Keck Corporation appears below (amounts in millions):

Total revenue	\$63,367
Cost of revenue	<u>41,895</u>
Gross profit	21,472
Total operating expenses	<u>16,200</u>
Operating income or loss	5,272
Other income/expenses	<u>22</u>
Earnings before interest and taxes	5,294
Interest expense	<u>669</u>
Income before tax	4,625
Income tax expense	<u>1,776</u>
Net income	<u>\$ 2,849</u>

How much is pro forma net income for the next year if sales growth is forecasted to be 12% per year, the income tax rate is 38.4%, and all expenses except for interest vary as a function of sales?

- a. \$3,191 million
- b. \$3,240 million
- c. \$2,020 million
- d. \$4,436 million

Answer: b

Rationale:  $[(\$5,294 \times 1.12) - \$669] \times (1 - 0.384)$

4. The asset section of the balance sheet for Keck Corporation appears below (amounts in millions):

**Assets**

Current assets

Cash and cash equivalents	\$ 2,450
Net receivables	9,207
Inventory	6,780
Other current assets	<u>469</u>

Total current assets 18,906

Long term investments 215

Property, plant and equipment 24,095

Intangible assets 208

Other assets 1,136

Total assets \$44,560

Assume that \$2,400 million of plant assets were purchased, \$1,100 million of depreciation was recorded, and cash and cash equivalents declined by 10%, while all other current assets increased by 7%.

How much are pro forma total assets if all other amounts stay the same?

- a. \$46,767 million
- b. \$21,372 million
- c. \$45,467 million
- d. \$47,867 million

Answer: a

Rationale:  $[\$44,560 + \$2,400 - \$1,100 - (\$2,450 \times 0.1) + (\$9,207 + \$6,780 + \$469) \times 0.07]$

5. Pomona Petroleum reported net income totaling \$349,000 for the year. The average number of shares of common stock outstanding during the year totaled 2.15 million. The company's average P/E multiple is 11.6 based on identified comparable firms.

What is Anders' share price?

- a. \$16.23
- b. \$ 1.88
- c. \$ 1.40
- d. \$ 6.16

Answer: b

Rationale:  $[(\$349,000 / 2,150,000) \times 11.6]$

6. Below are data from the financial statements of Sound Advice:

Increase in cash account	\$ 40,000
Cash flows from operations	405,000
Net income	368,000
Net cash from investing activities	45,000
Net decrease in debt	(120,000)

What is the company's free cash flow to equity?

- a. \$658,000
- b. \$290,000
- c. \$253,000
- d. \$370,000

Answer: b

Rationale:  $(\$405,000 - \$40,000 + \$45,000 - \$120,000)$

7. Below are data from the financial statements of Drucker Corporation:

Dividends paid	\$212,000
Common stock issued	66,000
Net change in common equity	167,000

What is the company's free cash flow to equity?

- a. \$445,000
- b. \$313,000
- c. \$ 21,000
- d. \$146,000

Answer: d

Rationale: (\$212,000 – \$66,000)

8. The income statement for Peyton Corporation for its year ending December 31, 2017 appears below (amounts in millions):

Total revenue	\$63,367
Cost of revenue	<u>41,895</u>
Gross profit	21,472
Total operating expenses	<u>16,200</u>
Operating income or loss	5,272
Other income/expenses	<u>22</u>
Earnings before interest and taxes	5,294
Interest expense	<u>669</u>
Income before tax	4,625
Income tax expense	<u>1,776</u>
Net income	<u><u>\$ 2,849</u></u>

How much is pro forma net income for 2018 if revenue growth is 12% per year, the income tax rate is 38.4%, and all expenses except for interest (which remains constant) vary as a function of revenues?

- a. \$3,191 million
- b. \$3,240 million
- c. \$2,020 million
- d. \$4,436 million

Answer: b

Rationale:  $[(\$63,367 \times 1.12) - [(\$41,895 + \$16,200 + 22) \times 1.12] - \$669] \times (1 - 0.384)$

9. Anders Petroleum reported net income totaling \$500,000. The average number of shares of common stock outstanding during the year totaled 2 million. The company's average P/E multiple is 22 based on identified comparable firms.

How much is Anders' share price?

- a. \$5.50
- b. \$1.88
- c. \$1.40
- d. \$6.16

Answer: b

10. What does terminal value represent?

- a. It is the value of a business from the present until it goes out of business
- b. It is the value of the last year of its planned period of doing business operations
- c. It is the value from the end of the specific forecast period until the business is sold or otherwise terminated
- d. It is the value of the business during its entire functional life discounted to the present

Answer: c