Financial & Managerial Accounting for Decision Makers, 3rd Edition by Dyckman, Hanlon, Magee, Pfeiffer, Hartgraves, and Morse

Chapter 5—Analyzing and Interpreting Financial Statements

Solutions to Practice Quiz

1. Selected balance sheet and income statement information is presented for four companies within the same industry (in millions):

	Company 1	Company 2	Company 3	Company 4
Current assets	$1,892	$2,601	$3,987	$2,201
Current liabilities	$ 854	$2,887	$3,334	$1,453
Total liabilities	$3,891	$7,011	$6,533	$3,942
Total liabilities and stockholders' equity	$4,843	$13,460	$13,045	$6,566

Based on current ratio calculations for all companies, which company is more liquid?

a. Company 1
b. Company 2
c. Company 3
d. Company 4

Answer: a
Rationale:

Company	Current ratio
Company 1	$1,892 / $854 = 2.22
Company 2	$2,601 / $2,887 = 0.90
Company 3	$3,987 / $3,334 = 1.20
Company 4	$2,201 / $1,453 = 1.51

2. Use the following selected balance sheet and income statement information for James Company (below in $millions) to compute the return on net operating assets (RNOA) to the nearest hundredth of a percent.

Operating profit before tax	Average net operating Assets	Sales	Tax rate on operating profit
$41,343	$265,376	$740,116	37.8%

a. 35.86%
b. 37.80%
c. 9.69%
d. 15.58%

Answer: c
Rationale: Net operating profit after tax = $41,343 – ($41,343 x 37.8%) = $25,715 RNOA
= $25,715 / $265,376 = 9.69%

3. Selected balance sheet and income statement information is presented for four companies within the same industry (in millions):

	Company 1	**Company 2**	**Company 3**	**Company 4**
Current assets	$927	$2,601	$3,987	$2,201
Current liabilities	$854	$2,887	$3,334	$1,453
Total liabilities	$3,891	$7,011	$6,533	$3,942
Total liabilities and stockholders' equity	$4,843	$13,460	$13,045	$6,566

Based on your calculations of the liabilities to equity ratio for all companies, which company is more solvent?

a. Company 1
b. Company 2
c. Company 3
d. Company 4

Answer: c
Rationale:

Company	**Liabilities-to-equity ratio**
Company 1	$ 3,891 / ($4,843 - $ 3,891) = 4.09
Company 2	$7,011 / ($13,460 - $7,011) = 1.09
Company 3	$6,533 / ($13,045 – 6,533) = 1.00
Company 4	$3,942 / ($6,566 - $3,942) = 1.50

4. Morgan Company has sales of $1 million, tax rate of 40%, net operating profit margin before interest and taxes of 6% and total interest charges of $10,000 per year. What is the times interest earned ratio?

a. 4.0
b. 7.0
c. 3.0
d. 6.0

Answer: d
Rationale: ($1,000,000 x 6%) / $10,000 = 6.0

5. Washington, Inc., reported the following amounts of net income (in thousands) from 2014 to 2016:

2016	2015	2014
$270	$180	$110

Based on this information, relative to the prior year, the percentage change in net income:

a. Was the same in both 2015 and 2016.
b. Was smaller in 2016 than in 2015.
c. Was larger in 2016 than in 2015.
d. Cannot be determined without knowing more information.

Answer: b
Rationale: 90/180 = 50% while 70/110 = 63.6%

6. A company has the following values:

PM = 0.09
EWI = $2,732
Average total assets = $44,360

Asset turnover (AT) is:

a. 0.68
b. 0.06
c. 1.46
d. 16.24

Answer: a
Rationale: AT = ($2,732 / $44,360) / 0.09 = 0.68

Use the following information for Questions 7 – 9:

Below are data from the financial statements of Crystal Company (in $millions).

Income statement data for 2016:	
Net income	$ 390
Net sales	1,530
Operating expenses	440
Cost of goods sold	520
Balance sheet data:	
Total equity, Dec. 31, 2015	$ 3,150
Total equity, Dec. 31, 2016	3,650
Operating assets, Dec. 31, 2015	2,760
Operating assets, Dec. 31, 2016	2,240
Operating liabilities, Dec. 31, 2015	1,100
Operating liabilities, Dec. 31, 2016	1,300
Tax Rate	40%

7. What was Crystal's operating income?

a. $1,010
b. $ 390
c. $ 570
d. $1,090

Answer: c
Rationale: $1,530 – $520 – $440 = $570

8. What is Crystal's return on equity?

a. 16.8%
b. 25.5%
c. 37.3%
d. 11.5%

Answer: d
Rationale: Average Total Equity = ($3,150 + $3,650) ÷ 2 = $3,400
$390/$3,400 = 11.5%

9. What is Crystal's return on net operating assets?

a. 13.7%
b. 26.3%
c. 43.8%
d. 22.8%

Answer: b
Rationale:

$$\frac{\text{Net operating profit after taxes}}{\text{Average net operating assets}} = \text{Return on net operating assets (RNOA)}$$

Net operating profit after taxes = \$570 – (\$570 x 40%) = \$342
Net operating assets (NOA) = Operating assets - Operating liabilities
2015 NOA = \$2,760 – 1,100 = \$1,660
2016 NOA = \$2,240 – 1,300 = \$940
(\$1,660 + 940) ÷ 2 = \$1,300 Average net operating assets
\$342/\$1,300 = 26.3%

10. Barton Company's 2016 balance sheet shows average shareholders' equity of \$4,435 million, net operating profit after tax of \$1,378 million, net income of \$1,015 million, and common shares issued of \$897 million.

The company has no preferred shares issued. Barton's return on common equity for the year is:

a. 22.9%
b. 31.1%
c. 437%
d. 20.2%

Answer: a
Rationale: ROE = Net income/Average shareholders' equity
= \$1,015 million/\$4,435 million
= 22.9%