Lecture 2: Statement of Cash Flows class exercise

Balance Sheet

ABC Firm: For years ending 31st December (USD in millions)

	2013	2014
Assets		
Cash and equivalents	107	140
Accounts receivable	270	294
Inventories	280	269
Other current assets	50	58
Total current assets	**707**	**761**
Net property, plant and equipment	814	873
Intangible assets	221	245
Total fixed assets	**1,035**	**1,118**
Total assets	**1,742**	**1,879**
Liabilities and equity		
Accounts payable	197	213
Notes payable	53	50
Accrued expenses	205	223
Total current liabilities	**455**	**486**
Deferred taxes	104	117
Long-term debts*	458	471
Total long-term liabilities	**562**	**588**
Total liabilities	**1,017**	**1,074**
Preferred stock	39	39
Common stock (USD 1 par value)	32	55
Capital surplus	327	347
Retained earnings	347	390
Less: Treasury stock	20	26
Total equity	**725**	**805**
Total liabilities and equity**	**1,742**	**1,879**

*Long –term debt rose by USD 13 million: the difference between USD 86 million new debts and USD 73 million in retirement of old debt.

**US Composite reports USD 43 million in new equity. The company issued 23 million shares at a price of USD 1.87 per share.

Income Statement

ABC Firm: For years ending 31st December (USD in millions)

	2013	2014
Total Operating revenues (Sales)	2,110	2,262
Cost of goods sold	1,610	1,655
Gross profit	**500**	**607**
Selling, general and administrative expenses	270	327
Earnings before interest, taxes, depreciation, and amortization (EBITDA)	**230**	**280**
Depreciation expenses	85	90
Amortization	-	-
Operating profit	**145**	**190**
Other income/expense	82	29
Earnings before interest and taxes (EBIT)	**227**	**219**
Interest expense	48	49
Earnings before taxes (EBT)	**179**	**170**
Current	75	71
Deferred	14	13
Total taxes	89	84
Net income before preferred dividends	**90**	**86**
Preferred stock dividends	4	4
Net income to common equity	**86**	**82**
Common stock dividends	41	39
Per share data:		
Price per share	14.50	15.25

Financial ratios analysis

Ratios	Formula	Remarks	2013	2014
1. Liquidity ratios				
Current ratio				
Quick ratio				
Cash ratio				
2. Assets utilization ratios				
Total assets turnover				
Fixed asset turnover				
Accounts receivable turnover				
Accounts receivable days				
Inventory turnover				
Inventory days				
Accounts payable turnover				
Accounts payable days				

Ratios	Formula	Remarks	2013	2014
3. Leverage ratios				
Total debt ratio				
Long-term debt ratio				
Debt-to-equity ratio				
Equity multiplier				
Times interest earned				
Cash coverage ratio				
4. profitability ratios				
Gross profit margin				
Profit margin				
Return on Assets (ROA)				
Return on Equity (ROE)				

Ratios	Formula	Remarks	2013	2014
5. Others				
Cash conversion cycle				
Operating cycle				
Price-earnings ratio (P/E ratio)				
Dividend payout ratio				
Retention ratio				
Growth rate				

Multiple choices questions

1. Which of the following ratios would be most useful in determining a company's ability to cover its periodically obligation to creditors?
   a. ROA
   b. Total asset turnover
   c. Times interest earned ratio
2. What does the P/E ratio measure?
   a. The "multiple" that the stock market places on a company's EPS.
   b. The relationship between dividends and market prices.
   c. The earnings for one common share of stock.
3. Linda Roper observes a decrease in a company's inventory turnover. Which of the following would explain this trend?
   a. The company installed a new inventory management system, allowing more efficient inventory management.
   b. Due to problems with obsolescent inventory last year, the company wrote off a large amount of its inventory at the beginning of the period.
   c. The company installed a new inventory management system but experienced some operational difficulties resulting in duplicate orders being placed with suppliers.
4. Which of the following would best explain an increase accounts receivable turnover?
   a. The company adopted new credit policies last year and began offering credit to customers in weak credit histories.
   b. Due to problems with an error in its old credit scoring system, the company had accumulated a substantial amount of its accounts receivables.
   c. To match the terms offered by its closest competitor, the company adopted new payment terms now requiring net payment within 30 days rather than 15 days, which had been its previous requirement.
5. Brown Corporation had an average days sales outstanding of 19 days in 2005. Brown wants to decrease its collection period in 2006 to match the industry average of 15 days. Credit sales in 2005 were USD 300 million, and Brown expects credit sales to increase to USD 390 million in 2006. To achieve Brown's

goal of decreasing the collection period, the change in the average accounts receivable balance from 2005 to 2008 that must occur is closest to:

a. – $1.22 million
b. – $10.42 million
c. $0.42 million

6. A decomposition of ROE for Firm ABC is as follows:

	2004	**2005**
ROE	18.90%	18.90%
Tax burden	0.75	0.70
Interest burden	0.90	0.90
EBIT margin	10.00%	10.00%
Asset turnover	1.40	1.50
Leverage	2.00	2.00

Which of the following choices best describes reasonable conclusions an analyst might make based on this ROE decomposition?

a. Profitability and the liquidity position both improved in 2005
b. The higher average tax rate in 2005 offset the improvement in profitability, leaving ROE unchanged.
c. The higher average tax rate in 2005 offset the improvement in efficiency, leaving ROE unchanged.

7. Rent-A-Center reported the following information related to total debt and shareholders' equity in its 2003 annual report.

What would an analysis's most appropriate conclusion be based on this data?

	1999	2000	2001	2002	2003
Total debt	847,160	741,051	702,506	521,330	698,000
Stockholders' equity	206,690	309,371	405,378	842,400	794,830

a. The company's solvency has improved from 1999 to 2002.
b. The company's solvency has improved from 2002 to 2003.
c. The data suggest the company increased debt in 2002.