Part III Quiz Solutions

I. Use the following information to make a December 31, 1999, classified balance sheet for Slow Clean Laundry. Income was $100,000 and dividends of $40,000 were paid to owners of common stock.

Slow Clean Laundry
Balance Sheet
December 31,1999

ASSETS			
Current Assets			
Cash		$22,000	
Accounts Receivable	$21,000		
Allowance for Bad Debts	1,000	20,000	
Prepaid Expenses		2,000	
Inventory		9,000	
Total Current Assets			$53,000
Property, Plant, and Equipment			
Land		$100,000	
Equipment	$190,000		
Less: Accumulated Depreciation	10,000	180,000	280,000
Total Assets			$333,000
LIABILITIES			
Current Liabilities			
Accounts Payable		$19,900	
Salaries Payable		2,100	
Taxes Payable		$11,000	$33,000
Total Current Liabilities			
Long-Term Liabilities			
Bonds Payable			60,000
Total Liabilities			$93,000
STOCKHOLDERS' EQUITY			
Common Stock		$145,000	
Contributed Capital in Excess of Par, Common Stock		35,000	
Total Contributed Capital		$180,000	
Net Income	$100,000		
Dividend	40,000		
Retained Earnings		60,000	
Stockholders' Equity 12/31/99			240,000
Total Liabilities and Owner's Equity			$333,000

Note: The stockholders' equity section of next year's balance sheet will show a retained earnings beginning balance of $60,000. Income minus dividends for the year will be added to this figure.

II. Complete a December 31, 1998, statement of cash flows for Netcon Corporation.
   A. Net income for 1998 was $490,000.
   B. Dividends of $100,000 were paid.
   C. Depreciation expense for 1998 was $100,000.

   D. **Analysis**
      1. Cash flows from operations were only 50.6% of income.
      2. The culprit was a 50% increase in inventory. Perhaps they got a tremendous buy. Maybe the business is expanding. This is logical because equity increased by more than $1 million.
      3. The purchase of assets was paid for by the sale of common stock. Debt financing is the alternative.

Netcon Corporation
Statement of Cash Flows
For Year Ended December 31, 1998

Cash Flows From Operating Activities		
Net Income		$490,000
Accounts Receivable Increased	($400,000)	
Prepaid Expenses Increased	(5,000)	
Inventory Increased	(400,000)	
Depreciation, a Noncash Expense	100,000	
Accounts Payable Increased	417,000	
Salaries Payable Increased	5,000	(283,000)
Net Cash Flow From Operating Activities		$207,000
Cash Flows From Investing Activities		
Fixed Assets Purchased	($670,000)	
Cash Flows From Financing Activities		
Paid Dividend	(100,000)	
Sold Common Stock	663,000	(107,000)
Net Increase (Decrease)		$ 100,000
Cash Beginning of Period		1,100,000
Cash End of Period		$1,200,000

III. Use horizontal and vertical analysis to better understand these income statements.
Make sales revenue 100% when doing vertical analysis.

A. Horizontal Analysis

Quick Company
Income Statements
For Period Ending December 31, 1998

	1998	1997	Change	% Change
Sales Revenue	$5,200,000	$4,000,000	$1,200,000	30%
Cost of Goods Sold	2,400,000	2,000,000	400,000	20%
Gross Profit	$2,800,000	$2,000,000	$800,000	40%
Operating Expenses	2,310,000	1,650,000	660,000	40%
Operating Income Before Taxes	$ 490,000	$ 350,000	$ 140,000	40%

B. Analyze the result.
1. A 30% increase in sales required only a 20% increase in cost of goods sold and as a result, gross profit increased by 40%. Why did cost of goods sold increase by only 20%? Did they find a good price for inventory or sell cheaper goods? Maybe both!
2. With both gross profit and operating expenses increasing by 40%, operating income had to increase by 40%.

C. Vertical Analysis

Quick Company
Income Statements
For Period Ending December 31, 1998

	1998	1997	1998	1997
Sales Revenue	$5,200,000	$4,000,000	100.0%	100.0%
Cost of Goods Sold	2,400,000	2,000,000	46.2%	50.0%
Gross Profit	$2,800,000	$2,000,000	53.8%	50.0%
Operating Expenses	2,310,000	1,650,000	44.4%	41.3%
Operating Income Before Taxes	$490,000	$350,000	9.4%	8.7%

D. Analyze the result.
1. A drop in cost of goods sold increased gross profit.
2. Operating expenses increased, but not enough to offset the decrease in cost of goods sold. As a result, there was an increase in operating income before taxes.
3. The numbers told us what happened, but not why. For this analysis you will need to do a case study.

IV. This problem continues the trend analysis problem started in Unit 15 on Financial Statement Analysis.
Complete the trend analysis and analyze the result. **(The answer is on the next page.)**

Quick Company
Income Statements
For Period Ending December 31, 2001

	1997	1998	1999	2000	2001
Sales Revenue (Net)	$4,000,000	$5,200,000	$6,500,000	$7,475,000	$8,222,500
Cost of Goods Sold	2,000,000	2,400,000	2,760,000	3,036,000	3,339,600
Gross Profit	$2,000,000	$2,800,000	$3,740,000	$4,439,000	$4,882,900
Operating Expenses	1,650,000	2,310,000	2,541,000	2,668,050	2,134,440
Operating Income Before Taxes	$ 350,000	$ 490,000	$1,199,000	$1,770,950	$2,748,460

Quick Company
Net Income Trend Analysis
For Period Ending December 31, 2001

	1997	1998	1999	2000	2001
Sales Revenue	$4,000,000	$5,200,000	$6,500,000	$7,475,000	$8,222,500
Change		$1,200,000	$1,300,000	$975,000	$747,500
% Change		30%	25%	15%	10%
Cost of Goods Sold	$2,000,000	$2,400,000	$2,760,000	$3,036,000	$3,339,600
Change		$400,000	$360,000	$276,000	$303,600
% Change		20%	15%	10%	10%
Gross Profit	$2,000,000	$2,800,000	$3,740,000	$4,439,000	$4,882,900
Change		$800,000	$940,000	$669,000	$443,900
% Change		40%	34%	18%	10%

Quick Company Net Income Trend Analysis For Period Ending December 31, 2001						
	1997	1998	1999	2000	2001	**Analysis**
Operating Expenses	$1,650,000	$2,310,000	$2,541,000	$2,668,050	$2,134,440	Maintaining high growth is difficult. This company tried by decreasing operating expenses by 20% while sales were increasing 10%. This is known as restructuring.
Change		$660,000	$231,000	$127,050	$533,610)	
% Change		40%	10%	5%	(20%)	
Operating Income After Taxes	$350,000	$490,000	$1,199,000	$1,770,950	$2,748,460	
Change		$140,000	$709,000	$571,950	$977,510	
% Change		40%	145%	48%	55%	

V. Do a ratio analysis for December 31, 1999. See problem IV on page 37 for 1999 income statement data. Income taxes were $199,000 in 1999.

Quick Company
Balance Sheets
December 31,1999

Assets	**1999**	**1998**	**Liabilities**	**1999**	**1998**
Cash	$1,300,000	$1,200,000	Accounts Payable	$1,607,000	$1,307,000
Accounts Receivable (Net)	1,900,000	1,400,000	Salaries Payable	55,000	15,000
Prepaid Expenses	110,000	105,000	Total Current Liabilities	$1,662,000	$1,322,000
Inventory	1,700,000	1,200,000	Notes Payable	8,500,000	8,500,000
Total Current Assets	$5,010,000	$3,905,000	Total Liabilities	$10,162,000	$9,822,000
Land	$9,000,000	$9,000,000	**Stockholders' Equity**		
Fixed Assets (Net)	5,970,000	6,270,000	Stockholders' Equity	$9,818,000	$9,353,000
Total Long-Term Assets	$14,970,000	$15,270,000			
Total Assets	$19,980,000	$19,175,000	**Total Liabilities and Equity**	$19,980,000	$19,175,000

A. **Liquidity Ratios**

1. **Current Ratio** $\frac{\text{Current Assets}}{\text{Current Liabilities}} = \frac{\$5,010,000}{\$1,662,000} = 3.0$

2. **Quick Ratio** $\frac{\text{Quick Assets}}{\text{Current Liabilities}} = \frac{\$1,300,000+\$1,900,000}{\$1,662,000} = 1.9$

B. **Activity Ratios**

1. **Accounts Receivable Turnover** $\frac{\text{Net Receivable Sales}}{\text{Average Net Accounts Receivable}} = \frac{\$6,500,000}{\frac{\$1,400,000+\$1,900,000}{2}} = \frac{\$6,500,000}{\$1,650,000} = 3.9 \text{ times}$

2. **Average Collection Period** $\frac{\text{Average Net Accounts Receivable}}{\frac{\text{Net Receivable Sales}}{365}} = \frac{\frac{\$1,400,000+\$1,900,000}{2}}{\frac{\$6,500,000}{365}} = \frac{\$1,650,000}{\$17,808} = 93 \text{ days}$

3. **Inventory Turnover** $\frac{\text{Cost of Goods Sold}}{\text{Average Inventory}} = \frac{\$2,760,000}{\frac{\$1,200,000+\$1,700,000}{2}} = \frac{\$2,760,000}{\$1,450,000} = 1.9 \text{ times}$

4. **Long-Term Asset Turnover** $\frac{\text{Net Sales}}{\text{Average Long-Term Assets}} = \frac{\$6,500,000}{\frac{\$15,270,000+\$14,970,000}{2}} = \frac{\$6,500,000}{\$15,120,000} = .43 \text{ times}$

C. **Profitability Ratios**

1. **Return on Sales** $\frac{\text{Operating Income - Taxes}}{\text{Net Sales}} = \frac{\$1,199,000-\$199,000}{\$6,500,000} = \frac{\$1,000,000}{\$6,500,000} = .154 = 15.4\%$

2. **Return on Equity** $\frac{\text{Operating Income - Taxes}}{\text{Average Common Stock Equity}} = \frac{\$1,199,000-\$199,000}{\frac{\$9,353,000+\$9,818,000}{2}} = \frac{\$1,000,000}{\$9,585,500} = .104 = 10.4\%$

D. **Leverage Ratio**

1. **Debt-to-Equity Ratio** $\frac{\text{Total Liabilities}}{\text{Stockholders' Equity}} = \frac{\$10,162,000}{\$9,818,000} = 1.04 = 104\%$