MBA 508 Midterm Resource Sheet

Use the information provided in the following tables to answer the questions on this exam.

Balance Sheet

Fiscal Year	**2016**	**2015**	**2014**
Assets			
Current Assets			
Cash and cash equivalents	600	583	583
Short-term investments	194	1,129	1,617
Accounts receivable	7,737	7,905	9,045
Inventory	7,918	7,596	7,179
Total current assets	16,449	17,213	18,424
Noncurrent assets			
Investments	1,032	999	829
Property and equipment, net	29,149	25,493	25,280
Total assets	46,630	43,705	44,533
Liabilities and shareholders' equity			
Current liabilities			
Accounts payable	6,857	6,625	6,511
Accrued and other current liabilities	3,644	3,326	3,120
Unsecured debt and other borrowings	3,786	119	1,696
Total current liabilities	14,287	10,070	11,327
Long-term liabilities			
Unsecured debt and other borrowings	13,697	15,607	15,118
Deferred income taxes	1,191	934	835
Other noncurrent liabilities	1,634	1,607	1,906
Total noncurrent liabilities	16,522	18,148	17,859
Shareholders' equity			
Common stock			
Par value	56	59	62
Additional paid-in capital	3,487	3,311	2,919
Retained earnings	12,959	12,698	12,947
Accumulated other comprehensive loss	(681)	(581)	(581)
Total shareholders' equity	15,821	15,487	15,347
Total liabilities and shareholders' equity	46,630	43,705	44,533

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Income Statement

Fiscal Year	2016	2015
Total revenues	69,865	67,390
Cost of sales	48,306	46,585
Gross Profit	21,559	20,805
Selling, general and administrative expenses	14,106	13,469
Operating Profit	7,453	7,336
Depreciation and amortization	2,131	2,084
Earnings before interest and taxes	5,322	5,252
Net interest expense	866	757
Earnings before taxes	4,456	4,495
Provision for income taxes	1,527	1,575
Net income	2,929	2,920

Additional Information

Fiscal Year	2016	2015
After-tax interest	569	492
Common stock, shares outstanding (millions)	669.3	704.0
Share Price	50.05	54.35
Cost of Capital	9.3%	9.2%

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Profitability

Market Value Added (MVA) = market capitalization – book value of common equity (BVE)

= (common shares outstanding x share price) – BVE

Economic Value Added (EVA) = after-tax operating income – total cost of capital

= after-tax operating income – (cost of capital x invested capital)

Return on Assets (ROA)* $= \dfrac{\text{After-tax operating income}}{\text{Total Assets}}$

Return on Invested Capital (ROIC)* $= \dfrac{\text{After-tax operating income}}{\text{Total Invested Capital}}$

Return on Equity (ROE)* $= \dfrac{\text{Net income}}{\text{Total Shareholders' Equity}}$

Profit Margin = Return on Sales (ROS) $= \dfrac{\text{Net income}}{\text{Sales}}$

Operating Profit Margin $= \dfrac{\text{After-tax operating income}}{\text{Sales}}$

Efficiency

Asset Turnover Ratio* $= \dfrac{\text{Sales}}{\text{Total Assets}}$

Receivables Turnover Ratio* $= \dfrac{\text{Sales}}{\text{Accounts Receivable}}$

Inventory Turnover Ratio* $= \dfrac{\text{Cost of Goods Sold}}{\text{Inventory}}$

Average Collection Period * $= \dfrac{\text{Accounts Receivable}}{\text{Sales/365}}$

$= \dfrac{365}{\text{Receivables T/O Ratio}}$

Average Days in Inventory* $= \dfrac{\text{Inventory}}{\text{COGS/365}}$

$= \dfrac{365}{\text{Inventory T/O Ratio}}$

After-tax operating income = net income + after-tax interest

Invested capital = long-term debt + shareholders’ equity

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Liquidity

Current Ratio $= \dfrac{\text{Current Assets}}{\text{Current Liabilities}}$

Quick Ratio = Acid Test Ratio $= \dfrac{\text{Cash + Marketable Securities + Accounts Receivable}}{\text{Current Liabilities}}$

Cash Ratio $= \dfrac{\text{Cash + Marketable Securities}}{\text{Current Liabilities}}$

Leverage

Long-term Debt Ratio $= \dfrac{\text{Long-term Debt}}{\text{Invested Capital}}$

Long-term Debt-to-Equity Ratio $= \dfrac{\text{Long-term Debt}}{\text{Shareholders' Equity}}$

Total Debt Ratio $= \dfrac{\text{Liabilities}}{\text{Assets}}$

Debt-to-Equity Ratio $= \dfrac{\text{Liabilities}}{\text{Shareholders' Equity}}$

Times Interest Earned $= \dfrac{\text{EBIT}}{\text{Net Interest Payments}}$

Cash Coverage Ratio $= \dfrac{\text{EBITDA}}{\text{Net Interest Payments}}$

DuPont Analysis

ROA $= \text{asset turnover ratio} \times \text{operating profit margin}$

ROE $= \dfrac{\text{Assets}}{\text{Shareholders' Equity}} \times \text{asset turnover ratio} \times \text{operating profit margin} \times \dfrac{\text{Net income}}{\text{After-tax operating income}}$

After-tax operating income = net income + after-tax interest
Invested capital = long-term debt + shareholders' equity