

Problem #1 (30 marks)

Prepare a ratio analysis for Halifax Sports Inc. using an excel spreadsheet. The firm has 2 million shares authorized and has 1 million shares issued and outstanding.

Halifax Sports Inc.			Halifax Sports Inc.		
Balance Sheet (\$000)			Balance Sheet (\$000)		
ASSETS	2020	2019		2020	2019
Current Assets			Sales Revenues	160,000	125,000
Cash	485	9,000	Cost of Goods Sold	<u>96,000</u>	<u>75,000</u>
Short-term Investments	10	-	Contribution Margin	64,000	50,000
Cert. of Deposit	5	-	Operating Expenses		
Accounts Receivable	16,000	12,500	Salaries	11,000	11,000
Inventory	<u>45,500</u>	<u>29,000</u>	Wages	16,000	12,500
Total Current Assets	62,000	50,500	General/Admin	10,000	10,000
Land	26,000	20,000	Amort/Depr.	10,000	4,500
Buildings and Equipment	100,000	70,000	Interest	<u>6,100</u>	<u>3,000</u>
Accumulated Amortization	<u>38,000</u>	<u>28,000</u>	Earnings B4 Taxes	<u>10,900</u>	<u>9,000</u>
Net Plant & Equipment	<u>88,000</u>	<u>62,000</u>	Taxes	<u>5,450</u>	<u>4,500</u>
TOTAL ASSETS	<u>150,000</u>	<u>112,500</u>	Earnings After tax	<u>5,450</u>	<u>4,500</u>
LIABILITIES and SHAREHOLDERS' EQUITY					
Current Liabilities					
Accounts Payable	22,000	10,500			
Bank Note	40,000	10,000			
Taxes Payable	2,500	2,000			
Accrued Expenses	<u>4,500</u>	<u>5,000</u>			
Total Current Liabilities	<u>69,000</u>	<u>27,500</u>			
Long Term Debt					
First Mortgage Bonds	20,000	22,000			
Debenture Bonds	<u>2,950</u>	<u>6,750</u>			
Total Liabilities	<u>22,950</u>	<u>28,750</u>			
Equity					
Common Shares	31,500	31,500			
Retained Earnings	<u>26,550</u>	<u>24,750</u>			
Total Equity	<u>58,050</u>	<u>56,250</u>			

a) Using an excel spreadsheet calculate the following for both years: **30 marks**

NOTE: the use of the excel spreadsheet is mandatory and the excel spreadsheet must be embedded in the word document. Submitting a separate file to the spreadsheet is not acceptable.

If the spreadsheet is not used, a mark of 0 will be applied to the question.

				Industry
Ratio	Formula	Values	Calculation	Average
Current Ratio				4.20
Quick Ratio				2.10
Receivables turnover				9.86
Day's Sales in Recievables				37.00
Inventory Turnover				2.50
Day's Sales in Inventory				146.00
Debt to Total Assets				58.00%
Times Interest Earned				3.80
Total Asset Turnover				1.14
Fixed Asset Turnover				1.40
Return on Total Assets				4.00%
Return on Equity				15.00%
Gross Profit Margin				38.00%
Operating Profit Margin				10.00%
Profit Margin				3.50%
<i>You need to show your work for your calculations. For example</i>				
Equity Multiplier				
<u>Assets</u>		<u>150,000</u>	2.584	
Equity		58,050		

2020

f_x					
	A	B	C	D	E
1	Ratios	Formula	Values	Calculations	Industry average
2	Current Ratio	Current assets/ current liabilities	62000 / 69000	0.89	4.2
3	Quick Ratio	Quick assets / Current liabilities	16500 / 69000	0.24	2.1
4	Receivable turnover	Net credit sales / Average account receivable	160000/ 14250	11.22	9.86
5	day's sales in receivable	365 / Account receivable turnover ratio	365/ 11.22	32.53	37
6	Inventory turnover ratio	Cost of goods sold / Average inventory	96000 / 37250	2.58	2.5
7	Day's sale in inventory	365/ Inventory turnover ratio	365/2.58	141.47	146
8	Debt to Total assets	Total liability / Total Assets	91950/150000	61.30%	58%
9	Time interest earned	EBIT / Interest expense	17000 / 6100	2.78	3.8
10	Total Asset Turnover	Sales / Average total assets	160000 / 131250	1.21	1.14
11	Fixed Asset Turnover	Sales / Average Fixed Assets	160000 / 75000	2.13	1.4
12	Return on Total Assets	Annual net income / Average total assets	5450 / 131250	4.15%	4%
13	Return on Equity	Annual net income / Average total equity	5450 / 57150	9.53%	15%
14	Gross Profit Margin	Gross profit / Net sale	64000 / 160000	40%	38%
15	Operating Profit Margin	Operating profit / Net sale	17000/ 160000	10.62%	10%
16	Profit Margin	Net profit / Net sale	5450 / 160000	3.40%	3.50%
17					
18					

2019

f_x					
	A	B	C	D	E
1	Ratios	Formula	Values	Calculations	Industry average
2	Current Ratio	Current assets/ current liabilities	50500 / 27500	1.83	4.2
3	Quick Ratio	Quick assets / Current liabilities	21500/ 27500	0.78	2.1
4	Receivable turnover	Net credit sales / Average account receivable	125000/ 6250	20	9.86
5	day's sales in receivable	365 / Account receivable turnover ratio	365/ 20	18.25	37
6	Inventory turnover ratio	Cost of goods sold / Average inventory	75000 / 14500	5.17	2.5
7	Day's sale in inventory	365/ Inventory turnover ratio	365/5.17	70.59	146
8	Debt to Total assets	Total liability / Total Assets	56250/112500	50.00%	58%
9	Time interest earned	EBIT / Interest expense	12000 / 3000	4	3.8
10	Total Asset Turnover	Sales / Average total assets	125000 / 56250	2.22	1.14
11	Fixed Asset Turnover	Sales / Average Fixed Assets	125000 / 31000	4.03	1.4
12	Return on Total Assets	Annual net income / Average total assets	4500 / 56250	8.00%	4%
13	Return on Equity	Annual net income / Average total equity	4500 / 28125	16.00%	15%
14	Gross Profit Margin	Gross profit / Net sale	50000 / 125000	40%	38%
15	Operating Profit Margin	Operating profit / Net sale	12000/ 125000	10.62%	10%
16	Profit Margin	Net profit / Net sale	4500 / 125000	3.60%	3.50%
17					
18					

- b) Complete the cash flow statement for 2020 using an excel spreadsheet. **(5 marks)**
- c) Complete the Sources and Uses Statement for 2020 using an excel spreadsheet. **(5 marks)**
- d) Complete the Cash Flow Identity Statement for 2020 using an excel spreadsheet. **(5 marks)**
- e) Complete common size statements for both the income statement and balance sheets for both years using an excel spreadsheet. **(10 marks)**
- f) Use the Dupont ratio to calculate the ROE and which ratio should the firm try to improve? **(4 marks)**

Part a is already solved, I just need b, c, d, e, and f thanks