FN 201 Business Finance

Midterm Exercise 1/2014

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Student ID: …………………………………………….

Question 1 (20 Points)

Balance sheets of HOMMY Inc. at the beginning and end of 2013 are presented below (in millions of dollars). The company earned $2,000 million after tax during the year and paid cash dividends of $200 million. The annual depreciation expense was $1,000 million. HOMMY purchased $2,500 million of fixed assets.

1.1 Consider any changes of key items in balance sheet below and fill in the two columns whether it is source of cash or use of cash. **(10 Points)**

	Jan 1, 2013	**Dec 31, 2013**	**Source of Cash**	**Use of Cash**
ASSETS				
Cash	$ 1,200	$ 900		
Accounts receivable	1,400	2,400		
Inventories	400	1,200		
Total current assets	$ 3,000	$ 4,500		
Gross fixed assets	12,000	14,500		
Less: Accumulated depreciation	4,500	5,500		
Net fixed assets	$ 7,500	$ 9,000		
Total assets	$10,500	$13,500		
LIABILITIES AND EQUITY				
Accounts payable	$ 1,400	$ 1,100		
Notes payable	1,000	1,000		
Long-term debt	1,000	2,500		
Common stock	3,000	3,000		
Retained earnings	4,100	5,900		
Total liabilities and equity	$10,500	$13,500		

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Question 1 (continued)

1.2 From information obtained above and (1.1), classify each items as an operating activity, an investing activity, or a financing activity, and summarize cash flow position in below table. **(10 Points)**

Operating activities:

Items	*Cash inflow / outflow*
Net Cash Inflow or Outflow	

Investing activities:

Items	*Cash inflow / outflow*
Net Cash Inflow or Outflow	

Financing activities:

Items	*Cash inflow / outflow*
Net Cash Inflow or Outflow	

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Question 2 (30 Points)

An incomplete 2013 balance sheet for O'Keefe Industries is expressed below together with the following key financial data:

O'Keefe Industries Balance Sheet
December 31, 2013

ASSETS		**LIABILITIES AND STOCKHOLDERS' EQUITY**	
Cash	$ 30,000	Accounts payable	$ 120,000
Marketable securities	25,000	Notes payable	
Account receivable		Accruals	20,000
Inventories		Total current liabilities	
Total current assets		Long-term debt	
Net fixed assets		Stockholders' equity	$ 600,000
Total assets		**Total liabilities and stockholders' equity**	

(1) Sales totaled $1,800,000.
(2) The gross profit margin was 25%.
(3) Inventory turnover was 6.0.
(4) There are 360 days in the year.
(5) The average collection period was 40 days.
(6) The current ratio was 1.60.
(7) The total asset turnover ratio was 1.20.
(8) The debt ratio was 60%.
(9) O'Keefe had common stocks outstanding at 150,000 shares with market price of $5.15.
(10) EBIT of O'Keefe was $200,000, which resulted in net income of $90,000.

2.1 Complete the 2013 balance sheet for O'Keefe Industries by using provided information. **(10 Points)**

Note: Please fill your answer into the balance sheet above.

Question 2 (continued)

2.2 Assume the company's corporate tax was at 40% and cost of capital was 10%, calculate the following measures of shareholders' wealth and provide the meaning. **(10 Points)**

A) Market Value Added (MVA) and Market-to-Book ratio

B) Economic Value Added (EVA)

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Question 2 (continued)

2.3 Given the preceding financial statements, complete the following table. Assume that the industry averages given in the table are applicable for both 2012 and 2013. Summarize the company's overall financial condition, comparing with its own performance and industry average. **(10 Points)**

Ratio	**Industry average**	**Actual 2012**	**Actual 2013**
Current ratio	1.80	1.74	1.60
Quick ratio	0.70	0.78	
Inventory turnover [a]	7.50	4.59	6.00
Average collection period [a]	30 days	38 days	40 days
Debt ratio	50%	57%	60%
Return on total assets	4.00%	5.00%	
Return on common equity	12.50%	14.75%	

[a] Based on a 360-day year.

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Question 3 (20 Points)

Winnie Corp. has an inventory conversion period of 60 days, an average collection period of 38 days, and an account payable period of 30 days. Winnie's annual sales are $3,421,875 which are all on credit, and cost of goods sold is 75% of sales. Assume a 360-day year.

3.1 Calculate firm's cash conversion period and the amount of resources or minimum cash needed to support its cash conversion cycle. **(10 Points)**

3.2 Discuss the importance of the cash conversion cycle and possible management that might be able to reduce the cash conversion cycle. **(10 Points)**

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Question 4 (25 Points)

Suppose that Win Hom Sofa has a line of credit with a quoted interest rate of 10 percent and a compensating balance of 25 percent. The compensating balance earns no interest.

4.1 If the company needs $60,000, how much total loan will it need to borrow? And what is the actual interest rate from this loan? **(10 Points)**

4.2 Suppose that the bank offers two alternative loan contracts without compensating balance requirement, but the company has to accept different agreements as follows:

Plan A – Paying an annual interest rate of 12 percent quarterly

Plan B – Paying an annual interest rate of 12 percent of a discount bank loan (discount interest)

Given total loan from (4.1), calculate actual interest rate of Plan A and Plan B. **(10 Points)**

4.3 Examining the original loan contracts with Plan A and Plan B, which plan should Win Hom accept? Why? **(5 Points)**

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Question 5 (25 Points)

When you were born, your dear old Uncle Winnie promised to deposit \$1,500 in a savings account for you on each and every one of your birthdays, beginning with your first. The savings account bears a 7 percent compound annual rate of interest.

5.1 Draw the saving time lines of your money. **(5 Points)**

5.2 Suppose you have just turned 20 and want all the cash. How much would you have received? **(10 Points)**

5.3 Ignore the amount from (5.2) since it turns out that dear old (forgetful) Uncle Winnie forgot making deposits on your fifth, seventh, and eleventh birthdays. How much is in the account now – on your twentieth birthday? **(10 Points)**