FN 201 Business Finance

Midterm Exercise 1/2017

Part 1:

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		

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	

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.

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)

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.

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)**

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 <u>without compensating balance requirement</u>, 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)**

Part 2:

Question 1 (20 Points)

Winnie Corporation, a major producer in automobile industry, had key financial statements as the attached tables. In 2012, the company paid dividends of $18,000. Also, it issued $150,000 in bonds, and purchased machine, some equipment, and other fixed asset for cash. Based on information attached, please help Winnie Corporation to form the statement of cash flows by identifying cash flows from operating, investing, and financing activities.

Balance Sheet

Assets		**Dec 31, 2012**	**Dec 31, 2011**
Cash		$37,000	$49,000
Accounts Receivable		$26,000	$36,000
Prepaid Expenses		$6,000	$0
Machine		$70,000	$0
Equipment	$68,000		$0
Accumulated Depreciation	$10,000	$58,000	$0
Other fixed assets	$200,000		$0
Accumulated Depreciation	$11,000	$189,000	$0
Total Assets		$386,000	$85,000
Liabilities and Stockholder Equity			
Accounts Payable		$40,000	$5,000
Bonds Payable		$150,000	$0
Common Stock		$60,000	$60,000
Retained Earnings		$136,000	$20,000
Total Liabilities and Stockholder Equity		$386,000	$85,000

Question 1 (continued)

Income Statement as Dec 31, 2012

Revenue		$492,000
Operating Expenses	$269,000	
Depreciation	$21,000	$290,000
Income before Income Taxes		**$202,000**
Income Tax Expense		$68,000
Net Income		**$134,000**

Question 2 (30 Points)

The financial statements of Win Hom Industries for the year ended December 31, 2013, follow.

Win Hom Industries' Income Statement
for the Year Ended December 31, 2013

Sale revenue	160,000
Less: Cost of goods sold	106,000
Gross profit	**54,000**
Less Operating expenses	
Selling expense	16,000
General and administrative expenses	10,000
Lease expense	1,000
Depreciation expense	10,000
Total operating expense	37,000
Operating profits	**17,000**
Less: Interest expense	6,100
Net profits before taxes	**10,900**
Less: Taxes	4,360
Net profit after taxes	**6,540**

Win Hom Industries' Balance Sheet
December 31, 2013

Assets	
Cash	500
Marketable securities	1,000
Account receivable	25,000
Inventories	45,500
Total current assets	**72000**
Land	26,000
Buildings and equipment	90,000
Less: Accumulated depreciation	38,000
Net fixed assets	**78,000**
Total assets	**150,000**
Liabilities and Stockholders' Equity	
Account payable	22,000
Notes payable	47,000
Total current liabilities	**69,000**
Long-term debt	22,950
Common stock [a]	31,500
Retained earnings	26,550
Total liabilities and stockholders' equity	**150,000**

[a] The firm's 3,000 outstanding shares of common stocks closed 2013 at a price of $25 per share.

Question 2 (continued)

2.1 With the company's corporate tax at 40%, 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)

2.2 Use the preceding financial statements to complete the following table. Assume that the industry averages given in the table are applicable for both 2012 and 2013. (10 Points)

Ratio	Industry average	Actual 2012	Actual 2013
Current ratio	1.80	1.84	
Quick ratio	0.70	0.78	
Inventory turnover [a]	2.50	2.59	
Average collection period [a]	37 days	36 days	
Debt ratio	65%	67%	
Time interest earned ratio	3.80	4.00	
Gross profit margin	38%	40%	
Net profit margin	3.50%	3.60%	
Return on total assets	4.00%	4.00%	
Return on common equity	9.50%	8.00%	

[a] Based on a 360-day year.

2.3 Summarize the company's overall financial condition, comparing with its own performance and industry average, as related to liquidity, activity, debt, and profitability. (10 Points)

Question 3 (20 Points)

Maggie Inc. turns over its inventory 6 times each year; it has an average collection period of 45 days and an average payment period of 30 days. The firm's annual operating-cycle investment is $3 million. Assume a 360-day year.

3.1 Calculate firm's operating cycle, cash conversion cycle, its daily cash operating expenditure, and the amount of resources needed to support its cash

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)

Question 4 (20 Points)

On March 1, 2012, MAMA Corporation purchased $100,000 worth of inventory on credit with terms of 1/20, net/60. In the past, MAMA has always followed the policy of making payment 1 month (30 days) after the goods are purchased.

If MAMA were to take advantage of the discount and pay the bill on March 20 rather than on March 30, the firm would have to borrow the necessary funds for the 10 extra days. National's borrowing terms with a local bank are estimated to be at 9 percent (annual rate), with a 15 percent compensating balance for the term of the loan.

MAMA feels that it makes little sense to take out a 9 percent loan with a compensating balance of 15 percent in order to save 1 percent on its $100,000 by paying the account 10 days earlier than it had planned.

4.1 Calculate the opportunity cost rate of foregoing cash discount if MAMA follows the traditional payment policy (payment is made on the 30th day)?
(7 Points)

4.2 If MAMA rejects such traditional payment policy, what will be the true interest cost rate of borrowing the necessary funds for the 10 extra days?
(8 Points)

4.3 Would it be to MAMA's advantage to take 1 percent discount by paying the bill 10 days earlier than usual? Why? (5 Points)

Part 3:

Question 1 (15 Points)

Win Hom Corp. wants to identify cash change during 2013 according to the following information.

1. It allowed accounts receivable to expand by $25 million.
2. It paid a $30 million dividend.
3. It repaid $25 million of short-term bank debt.
4. It earned $60 million of net income.
5. It reduced inventory, releasing $5 million.
6. It invested $30 million.
7. It purchased $25 million of marketable securities.
8. It issued $30 million of long-term debt.
9. It set aside $20 million as depreciation.
10. It increased its accounts payable – borrowing an additional $25 million from its suppliers.

1.1 Complete below table to get cash change position for Win Hom in 2013. **(10 Points)**

Cash flows from operating activities:	
Net cash flow from operating activities	
Cash flows from investing activities:	
Cash flows from financing activities:	
Net cash flow from financing activities	
Net change in cash	

1.2 Given cash changes above, explain company's strategic operations, including operating, investing, and financing matters in 2013. **(5 Points)**

Question 2 (30 Points)

The key financial statements of Total Access Communication PLC. (DTAC) and Advanced Info Service PLC. (AIS) for the year ended December 31, 2013, are as follows.

BALANCE SHEET (Million Baht)	**DTAC 2013**	**AIS 2013**
Cash & Equivalent	5,472	16,831
Accounts receivable	10,351	10,264
Inventory	1,683	2,865
PP&E-net	15,120	35,922
Other fixed assets	72,428	45,490
Total assets	**105,054**	**111,372**
Accounts payable	28,190	11,718
ST debts & current portion	8,296	5,303
Long-term debt	23,164	15,355
Other long-term liabilities	4,029	5,287
Total liabilities	**72,334**	**65,480**
Paid-up capital	4,736	2,973
Share premium	23,543	22,372
Retained earnings	2,782	20,403
Shareholder’s equity	**32,720**	**45,892**
Total Liab.&Shareholders' equity	**105,054**	**111,372**

INCOME STATEMENT (Million Baht)	**DTAC 2013**	**AIS 2013**
Revenue	94,369	142,783
Cost of sales and services	(65,119)	(81,141)
Gross profit	**29,250**	**61,642**
Selling, general, and administration expenses	(13,630)	(14,847)
EBIT	**15,620**	**46,795**
Interest expense	(1,270)	(1,002)
Other income/exp.	335	871
EBT	**14,685**	**46,664**
Corporate tax	(2,888)	(10,008)
After-tax net profit (loss)	**11,797**	**36,656**

2.1 In 2013, DTAC had 2,400 million shares of common stocks outstanding with market price at 105.50 Baht. Assume DTAC's effective corporate tax was at 19.67% and cost of capital was 10%, calculate the following measures of shareholders' wealth of DTAC and provide the meaning. **(10 Points)**

A) Market Value Added (MVA)

B) Economic Value Added (EVA)

2.2 Use the preceding financial statements of DTAC to compute key financial ratios by completing the following table. **(10 Points)**

Ratio	**AIS**	**DTAC**
Current ratio	1.7602	
Quick ratio	1.5919	
Inventory turnover [a]	28.3215	
Average collection period [a]	25.8787	
Debt ratio (%)	58.7940	
Time interest earned ratio	46.7016	
Gross profit margin (%)	43.1718	
Net profit margin (%)	25.6725	
Return on total assets (%)	32.9131	
Return on equity (%)	79.8745	

[a] Based on a 360-day year.

2.3 Summarize overall financial condition of DTAC by comparing with AIS under each criterion. If you want to invest in either DTAC or AIS, which company should you choose? **(10 Points)**

Question 3 (25 Points)

Jackie Corp. turns over its inventory 9 times during the year, and its days sales outstanding was 36 days. Under regular payment policy, the company payables deferral period is 40 days. Jackie's daily operating cash is around $64,000. 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 Jackie normally buys inventory on account with credit term of 2/15, net 40. If the company decides to take cash discount, what effect will this have on the cash cycle and the minimum cash required? **(5 Points)**

3.3 Will it be better for Jackie to take 2 percent discount when short-term bank loan costs 15%? Please calculate and compare the opportunity cost rate of foregoing cash discount and the actual interest rate to make decision. **(10 Points)**

Part 4:

Question 1 (20 Points)

Balance Sheet of WINNIE Inc. at the end of 2010 are presented below. It was found that during 2010, the company paid dividends of $2,500, and paid $46,000 in cash to acquire new fixed assets. No debt was retired during 2010.

1.1 Use the following data from Balance Sheet of Winie Inc. to identify key accounting entry whether it is source of cash or use of cash. **(10 Points)**

	2010	**2009**	**Source of Cash**	**Use of Cash**
ASSETS				
Cash	4,000	14,000		
Accounts receivable	30,000	39,500		
Inventory	37,000	34,000		
Fixed assets	316,000	270,000		
Accumulated Depreciation	(45,000)	(30,000)		
Total assets	**342,000**	**327,500**		
LIABILITIES & EQUITY				
Accounts payable	18,000	16,000		
Wages payable	4,000	7,000		
Note payable	173,000	160,000		
Capital stock	88,000	84,000		
Retained earnings	59,000	60,500		
Total Liabilities & Equity	**342,000**	**327,500**		

1.2 From information obtained in (1.1) and Income Statement below, classify each item as cash flow from operating activity, investing activity, or financing activity, and summarize cash flow position in below table. **(10 Points)**

Income Statement	**2010**
Sales	200,000
Cost of goods sold	(123,000)
Depreciation expense	(15,000)
Insurance expense	(11,000)
Wage Expense	(50,000)
Net Income	1,000

Items	***Cash inflow / outflow***
Cash Flow from Operations:	
Net Income	
Depreciation Expense	
Net Cash Inflow or Outflow	

Cash Flow from Investments:	
Net Cash Inflow or Outflow	

Cash flow from financing activities:	
Net Cash Inflow or Outflow	

Net Cash Flow	
Beginning Cash Balance	
Ending Cash Balance	

Question 2 (30 Points)

Win Hom Railroad, a public transportation company, would like to form a complete Balance Sheet and Income Statement for the year end 2013. However, some of the entries were missing. The only available data were financial ratios which could help the finance department to work out.

2013 INCOME STATEMENT (Unit: Million US$)

Net sales	
Cost of goods sold	
Selling, general, and administrative expenses	10.00
Depreciation	20.00
Earnings before interest and taxes (EBIT)	
Interest expense	
Income before tax	
Tax	
Net income	

2013 BALANCE SHEET (Unit: Million US$)

	2013
Assets	
Cash and marketable securities	
Receivables	
Inventories	
Total current assets	
Net property, plant, and equipment	
Total assets	

Liabilities and shareholders' equity	
Accounts payable	**25**
Notes payable	**30**
Total current liabilities	
Long-term debt	
Shareholders' equity	
Total liabilities and shareholders' equity	**115**

2. 1 Complete the 2013 Balance Sheet and Income Statement for Win Hom Railroad by using the financial ratios provided. Assume a 360-day year. Fill your answer into the Balance Sheet and the Income Statement on previous page. **(10 Points)**

Ratios	**2013 Win Hom Railroad**
Long-term debt ratio	0.20
Times interest earned	8.00
Current ratio	1.40
Quick ratio	1.00
Cash ratio	0.20
Return on assets	21.30%
Return on equity	66.22%
Inventory turnover	5.00
Average collection period	88.00 days

Note: You may use the space below to draft your answer.

2. 2 Financial Manager of Win Hom Railroad wanted to measure overall performance of the company. She wondered whether the benchmark should be BangChak Hospital, which is a company in health service industry, or its own performance of the previous year. How would you suggest? Why? **(5 Points)**

Ratios	**2013 Win Hom Railroad**	**2013 BangChak Hospital**	**2012 Win Hom Railroad**
Long-term debt ratio	0.20	0.40	0.30
Times interest earned	8.00	5.00	6.50
Current ratio	1.40	2.00	1.20
Quick ratio	1.00	0.90	0.85
Cash ratio	0.20	0.75	0.25
Return on assets	21.30%	25.00%	20.00%
Return on equity	66.22%	45.00%	50.00%
Inventory turnover	5.00	10.00	3.00
Average collection period	88.00 days	28.00 days	75.00 days

2.3 Summarize the company’s overall performance compared with an appropriate benchmark you suggested from (2.2). **(15 Points)**

Question 3 (35 Points)

MWH Corporation purchases the inventory under the credit terms of **2/15, net 45** for the whole year. Since the company believes that it could not find advantage from taking 2 percent discount, it always takes the full 45 days to pay its bills. Thus, the average payment period is 45 days. A new member in finance department considered that there might be benefit from taking cash discount by paying on the 15th day after purchasing. However, this will require additional short-term capital. If MWH turns over its inventory 6 times each year and has an average collection period of 30 days. The company's annual operating-cycle investment is $630 million. Assume a 360-day year.

3.1 In case that MWH takes the full 45 days to pay its bills, what is the company's cash cycle and the amount of resources needed to support the cycle? **(10 Points)**

3.2 If MWH pays its bills on the 15th date, how much is the additional short-term capital required to support the cash cycle? **(10 Points)**

3.3 Is there any cost associated with the decision of not taking cash discount? If so, what is such cost and how to calculate? **(10 Points)**

3.4 What would be the criteria to help the company making decision whether it should take benefits from cash discount? Explain. **(5 Points)**

Part 5:

Question 1 (20 Points)

Win Hom Inc. wants to identify cash changes during 2014 in the statement of cash flow.

1. 1 According to the following information, identify key accounting entry whether it is source of cash or use of cash, and to which activities it belongs.

(10 Points)

No.	Entry	Value ($)	Activities	Source of Cash	Use of Cash
1	Gain on Sale of Equipment	1,800			
2	Net Income	7,000			
3	Bond Issuance	20,000			
4	Receipt from Payback of Loan Principal	25,000			
5	Increase in Accounts Receivable	4,400			
6	Increase in Accounts Payable	14,000			
7	Dividends Paid	10,000			
8	Depreciation Expense	1,000			
9	Receipt from Sale of Old Equipment	1,400			
10	Treasury Stock Purchased	32,000			
11	Decrease in Prepaid Insurance	1,300			
12	Cash Paid to Construct New Buildings	40,000			

1.2 From information obtained in (1.1), summarize cash flow position in below table to form the statement of cash flow. **(10 Points)**

Note: For simplicity, you may write the number of entry instead of full record to save time.

Items	***Cash inflow / outflow***
Cash Flow from Operations:	
Net Cash Inflow or Outflow	

Cash Flow from Investments:	
Net Cash Inflow or Outflow	

Cash flow from financing activities:	
Net Cash Inflow or Outflow	

Net Cash Flow	
Beginning Cash Balance	**10,000**
Ending Cash Balance	

Question 2 (25 Points)

Bualuang Securities summarized key financial statements for the year ended December 31, 2014 of the two important companies in the Energy & Utilities industry, which are BANPU Public Company Limited (BANPU) and Electricity Generating Public Company Limited (EGCO). Income Statement and Balance Sheet are reported as follows:

Income Statement

(Unit: Million Baht)	BANPU	EGCO
Revenue	102,122	17,201
Cost of sales and services	(79,272)	(10,310)
Gross profit	**22,850**	**6,891**
Operating Expenses	(14,638)	(2,956)
EBIT	**8,212**	**3,935**
Interest expense	(4,271)	(2,794)
Other income/exp.	1,443	1,853
EBT	**5,384**	**2,994**
Corporate tax	(2,260)	(792)
Profit (Loss)	**3,124**	**2,202**

Balance Sheet

(Unit: Million Baht)	BANPU	EGCO
Cash & Equivalent	13,951	8,653
Accounts receivable	10,107	3,358
Inventory	55,758	2,603
PP&E-net	43,883	55,275
Other fixed assets	153,735	90,798
Total assets	**277,434**	**160,687**
Accounts payable	1,233	791
ST debts & current portion	11,647	15,681
Long-term debt	96,802	67,735
Other long-term liabilities	38,640	2,261
Total liabilities	**148,322**	**86,468**
Paid-up capital	2,582	5,265
Share premium	5,058	8,649
Retained earning	71,472	60,305
Share holders' equity	**79,112**	**74,219**
Total Liab. & Equity	**227,434**	**160,687**

2.1 Use the preceding financial statements of EGCO to compute key financial ratios by completing the following table. **(10 Points)**

Ratio [a]	BANPU	EGCO
Current ratio	6.20	
Quick ratio	1.87	
Inventory turnover	1.42	
Average collection period	35.63	
Debt ratio	53.46%	
Time interest earned ratio	1.92	
Gross profit margin	22.38%	
Net profit margin	3.06%	
Return on total assets	1.13%	
Return on common equity	3.95%	

[a] Based on a 360-day year.

2.2 Summarize overall financial performance of EGCO comparing with BANPU under each criterion. If you want to invest either in BANPU or EGCO, which company would you recommend? **(15 Points)**

Question 3 (40 Points)

Winnie Manufacturing reported sales last year of $5,000 million with 30% gross profit margin and inventory level at $437.50 million. The company had an average collection period of 60 days and an average payment period of 45 days. Assume a 360-day year.

3.1 Calculate the company's cash conversion cycle and the amount of resources needed to support the cash conversion cycle. **(10 Points)**
3.2 Assume that inventory of the company was transacted with the credit terms of **2/15, net 45**. If Winnie decides to take cash discount and makes payment on the 15th day after purchasing, how much is the additional short-term capital needed to support the cash cycle? **(10 Points)**
3.3 To support the additional capital from (3.2), Winnie has to borrow from Bank Z for 30 days with a quoted rate of 12% per year. By comparing the opportunity cost of foregoing a cash discount and the actual cost of bank loan, would you recommend the company to take cash discount? Why? **(10 Points)**
3.4 Why there exists a trade-off between liquidity and profitability in current asset investment policy? And under which condition should the company emphasize on liquidity or profitability? **(10 Points)**

Part 6:

Question 1 (20 Points)

The following financial statements are from the 2019 Annual Report of the MWH Company.

1. 1 According to the following information, identify key accounting entry whether it is source of cash inflow or source of cash outflow, and by how much. **(10 Points)**

Balance Sheets at December 31, 2018 and 2019 (Unit: $Million)

	2018	2019	Cash Inflow	Cash Outflow
Assets				
Cash	$50	$60		
Accounts receivable	500	520		
Inventory	750	770		
Current assets	**$1,300**	**$1,350**		
Fixed assets (net)	$500	$550		
Total assets	**$1,800**	**$1,900**		
Liabilities and equity				
Notes payable to banks	$100	$75		
Accounts payable	590.00	615.00		
Interest payable	10.00	20.00		
Current liabilities	**$700**	**$710**		
Long-term debt	300.00	350.00		
Deferred income tax	300.00	310.00		
Capital stock	400.00	400.00		
Retained earnings	100.00	130.00		
Total liabilities & equity	**$1,800**	**$1,900**		

1.2 The company had capital expenditures (or cash flow from investing activities) $150 million and paid out dividends $30 million. Given the following Income Statement, summarize cash flow position of MWH Company for the year ended 2019 in the table below. **(10 Points)**

Income Statement for Year Ended December 31, 2019 (Unit: $Million)

Sales	**1,000**
Cost of goods sold	-650
Depreciation expense	-100
Sales and general expense	-100
Interest expense	-50
Income tax expense	-40
Net income	**60**

Items	***Cash inflow / outflow***
Cash Flow from Operations:	
Net Cash Inflow or Outflow	
Cash Flow from Investments:	
Capital Expenditures	***-150***
Cash flow from financing activities:	
Dividends	***-30***
Net Cash Inflow or Outflow	
Change in Cash	

Question 2 (25 Points)

Bualuang Securities summarized key financial statements for the year ended December 31, 2015 of the two key players in the Aviation industry, which are Bangkok Airways (BA) and Asia Aviation (AAV). Income Statement and Balance Sheet were reported as follows:

Income Statement

(Unit: Million Baht)	**BA: 2015**	**AAV: 2015**
Revenue	23,113	29,507
Cost of sales and services or COGS	-18,626	-25315
Selling, general, and administrative expenses	-2,967	-2,377
EBIT	**1,520**	**1,815**
Interest Expense	-1,606	-457
Other income or expense	1,458	956
EBT	**1,372**	**2,314**
Corporate tax	-250	-151
Net profit (loss)	**1,122**	**2,163**

Balance Sheet

(Unit: Million Baht)	**BA: 2015**	**AAV: 2015**
Cash & Equivalent	4,628	6,123
Accounts receivable	1,847	439
Inventory	306	94
Net fixed assets	9,559	18,216
Other fixed assets	40,673	27,955
Total assets	**57,013**	**52,827**
Account payable	2,261	336
Short-term debt	500	1,261
Long-term debt	13,858	12,775
Other long-term liabilities	9,438	18,313
Total liabilities	**26,057**	**32,685**
Paid-up capital	2,100	485
Common stock	28,425	2,599
Retained earnings	431	17,058
Shareholders’ equity	**30,956**	**20,142**
Total Shareholders' Equity & Liabilities	**57,013**	**52,827**

2.1 Use the preceding financial statements of AAV to compute key financial ratios by completing the following table. **(10 Points)**

Ratio [a]	BA: 2015	AAV: 2015
Current ratio	2.46	
Quick ratio	2.35	
Inventory turnover	60.87	
Average collection period	28.77	
Debt ratio	45.70%	
Time interest earned ratio	0.946	
Gross profit margin	19.41%	
Net profit margin	4.85%	
Return on total assets	1.97%	
Return on common equity	3.62%	

[a] Based on a 360-day year.

2.2 Summarize overall financial performance of AAV comparing with BA under each criterion. If you want to invest either in AAV or BA, which company would you recommend? **(15 Points)**

Question 3 (40 Points)

Linda Manufacturing has an inventory conversion period of 60 days, an average collection period of 30 days, and an account payable period of 45 days. Linda's annual sales are $4,860,000 which are all on credit, and the gross profit margin is 20% of sales. Assume a 360-day year.

3.1 Calculate the company's cash conversion cycle and the amount of resources needed to support the cash conversion cycle. **(10 Points)**

3.2 Assume that inventory of the company was transacted with the credit terms of **1/15, net 45**. Linda understands that if they do not take cash discount, there should be no cost associated. Is Linda's understanding correct? Why? If there is cost, how great is the percentage? **(10 Points)**

3.3 Linda would like to borrow short-term loan for 40 days and rolls over its contract throughout the year. Suppose that the bank offers Linda short-term debt with term loan of 40 days and 15% of interest rate per annum. By comparing the opportunity cost of foregoing a cash discount and the actual cost of bank loan, would you recommend the company to take cash discount? Why? **(10 Points)**

3.4 In financing policy, explain possible reason why there exists a trade-off between liquidity and profitability. Under which condition should the company emphasize on a particular aspect (i.e. liquidity or profitability)? **(10 Points)**

Part 7:

Question 1 (20 Points)

Winnie Corp. wants to identify cash change during 2016 according to the following information.

11. It had $80 million as accumulated depreciation, and $40 million as total depreciation expenses of the year.
12. Retained earnings of 2016 was $90 million.
13. It lent $50 million to ABX Company Limited.
14. It issued $90 million of long-term debt.
15. It earned $120 million of net income.
16. It repaid $55 million of notes payable.
17. Its financial cost was $7.5 million.
18. It allowed accounts receivable to expand by $45 million.
19. It sold $30 million of marketable securities.
20. It reduced inventory, releasing $15 million.
21. It increased its accounts payable by an additional $25 million.
22. It paid a $30 million dividend.

1.1 Complete below table to get cash change position for Winnie Corp. in 2016. **(10 Points)**

Cash flows from operating activities:	
Net cash flow from operating activities	
Cash flows from investing activities:	
Net cash flow from investing activities	
Cash flows from financing activities:	
Net cash flow from financing activities	
Net change in cash	

1.2 Calculate the shareholders' wealth measures and provide the meaning given additional information of Winnie Corp. in the below table. Assume the company's corporate tax was at 40% and cost of capital was 10%. **(10 Points)**

Unit: Million US$

Earnings before Interest and Tax	7,815
Market price of common stock	3.75
Number of common stock outstanding	12,500 million stocks
Long-term debt	5,755
Long-term liability	8,313
Common stock	3,084
Retained earnings	17,058

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

B) Economic Value Added (EVA)

Question 2 (30 Points)

Settrade.com reported key financial statements for the year ended December 31, 2015 of the two important companies in the Energy & Utilities industry, which are SOLARTRON Public Company Limited (SOLAR) and IRPC Public Company Limited (IRPC). Income Statement and Balance Sheet are as follows.

Income Statement	**IRPC 2015**	**SOLAR 2015**
Items	**(Unit: MB.)**	**(Unit: MB.)**
Revenues from Sale	218,519	697
Cost of Sale of Goods and Services	-197,914	-635
Selling and Administrative Expenses	-6,356	-118
EBIT	14,250	-57
Finance Costs	-2,481	-17
EBT	11,769	-74
Income Tax Expenses	-2,346	14
Net Profit (Loss)	**9,423**	**-60**

Balance Sheet	**IRPC 2015**	**SOLAR 2015**
Assets	**(Unit: MB.)**	**(Unit: MB.)**
Cash and equivalents	3,576	74
Account Receivables	9,033	371
Inventories	23,376	1,022
Total CA	**35,984**	**1,467**
Fixed Assets	127,189	2,033
Total Assets	**163,174**	**3,501**
Liabilities & Equities	**(Unit: MB.)**	**(Unit: MB.)**
Account Payable	28,450	348
Short-term Debt	4,492	868
Accrued Expense	3,268	27
Total CL	**36,210**	**1,243**
Long-term Debt	51,086	242
Retained Earnings	26,956	253
Equity	48,922	1,763
Total Liabilities & Equities	**163,174**	**3,501**

2. 1 Use the preceding financial statements of SOLAR to compute key financial ratios by completing the following table. **(15 Points)**

Ratio [a]	**IRPC**	**SOLAR**
Current ratio	**0.99**	
Quick ratio	**0.35**	
Inventory turnover	**8.47**	
Average collection period	**14.88**	
Debt ratio	**53.50%**	
Time interest earned ratio	**5.74**	
Gross profit margin	**9.43%**	
Net profit margin	**4.31%**	
Return on total assets	**5.77%**	
Return on common equity	**12.42%**	

[a] Based on a 360-day year.

2. 2 Summarize overall financial performance of SOLAR comparing with IRPC under each criterion. If you want to recommend SOLAR to improve its operating performance, in which aspects would you suggest? **(15 Points)**

Question 3 (40 Points)

Big Bros Manufacturing turns over its inventory 8 times each year. It reported sales last year of $9,600 million with 25% gross profit margin. It has an average collection period of 50 days. Big Bros normally buys inventory on account with credit term of **2/10, net 60**, so its average payment period of 60 days. Assume a 360-day year.

3.1 Calculate the company's cash conversion cycle and the amount of resources needed to support the cash conversion cycle. **(10 Points)**

3.2 If Big Bros decides to take cash discount and makes payment on the 10th day after purchasing, how much is the additional short-term capital needed to support the cash cycle? If not taking so, is there any cost associated and how great is the percentage? **(10 Points)**

3.3 To support the additional capital from (3.2), Big Bros has to borrow from OMG Bank for 50 days with a quoted rate of 7% per year, but with the conditions of discount interest and 10% of compensating balance. By comparing the opportunity cost of foregoing a cash discount and the actual cost of bank loan, would you recommend the company to take cash discount? Why? **(10 Points)**

3.4 Why there exists a trade-off between liquidity and profitability in current asset investment policy? And under which condition should the company emphasize on liquidity or profitability? **(10 Points)**

Part 8:

Question 1 (20 Points)

Balance sheets of Winnie Inc. for the year 1999 and 2000 were presented below. However, the company forgot to report cash flow position in details.

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)**

BALANCE SHEETS (December 31, 2000)

Assets	**2000**	**1999**	**Cash inflows**	**Cash outflows**
Cash	44,000	22,000		
Accounts receivable	26,000	28,000		
Inventories	60,000	0		
Prepaid expenses	4,200	6,200		
Fixed assets	261,000	269,000		
Accumulated depreciation	60,000	32,000		
Total assets	**335,200**	**293,200**		
Liabilities and Equity				
Accounts payable	33,000	30,000		
Bonds payable	100,000	140,000		
Common stock	170,000	100,000		
Retained earnings	32,200	23,200		
Total liabilities and equity	**335,200**	**293,200**		

1.2 Assume Winnie Inc. paid cash dividends of $48,000. From Income Statement below and all previous information, help the company to form the Statement of Cash Flows using the indirect method. Classify each item to be cash flow from operating activity, investing activity, or financing activity, and summarize in the table below. **(10 Points)**

INCOME STATEMENT (December 31, 2000)

Revenue	800,000
Costs of goods sold	475,000
Operating expenses	186,000
Depreciation expense	34,000
Interest expenses	10,000
Earnings before tax	95,000
Income tax expense	38,000
Net income	**57,000**

Items	*Cash inflow / outflow*
Cash Flow from Operations:	
Net Income	
Depreciation Expense	
Net Cash Inflow or Outflow	
Cash Flow from Investments:	
Net Cash Inflow or Outflow	
Cash flow from financing activities:	
Net Cash Inflow or Outflow	

Net Cash Flow	
Cash, Jan 1, 2000	**22,000**
Cash, Dec 31, 2000	

Question 2 (25 Points)

Settrade. com reported key financial statements for the year ended December 31, 2015 of the two important companies in Agro & Food Industry, which are OISHI (OISHI Group PCL) and ICHI (ICHITAN Group PCL). Income Statement and Balance Sheet are as follows.

Income Statement	**OISHI 2015**	**ICHI 2015**
Items	**(Unit: MB.)**	**(Unit: MB.)**
Revenues from Sale	10,508	5,266
Cost of Sale of Goods and Services	6,607	3,944
Selling and Administrative Expenses	2,921	918
EBIT	**981**	**405**
Finance Costs	61	25
EBT	**920**	**379**
Income Tax Expenses	40	11
Net Profit (Loss)	**880**	**368**

Balance Sheet	**OISHI 2015**	**ICHI 2015**
Assets	**(Unit: MB.)**	**(Unit: MB.)**
Cash	597	34
Accounts receivable	424	875
Inventories	490	514
Fixed assets	7,561	7,166
Other fixed assets	205	38
Total assets	**9,278**	**8,627**
Liabilities & Equities	**(Unit: MB.)**	**(Unit: MB.)**
Accounts payable	2,005	257
Short-term debt	570	770
Bonds payable	2,093	1,069
Common stock	1,159	5,639
Retained earnings	3,450	892
Total liabilities and equity	**9,278**	**8,627**

2.1 Use the preceding financial statements of ICHI to compute key financial ratios by completing the following table. **(10 Points)**

Ratio [a]	OISHI	ICHI
Gross profit margin	**37.12%**	
Net profit margin	**8.37%**	
Return on total assets	**9.48%**	
Return on common equity	**19.09%**	
Debt ratio	**50.31%**	
Time interest earned ratio	**16.0820**	
Current ratio	**0.5868**	
Quick ratio	**0.3965**	
Inventory turnover	**13.4837**	
Average collection period	**14.5261**	

[a] Based on a 360-day year.

2.2 Summarize overall financial performance of ICHI comparing with OISHI under each criterion. Do you agree that OISHI still performs better than its key competitor, ICHI? Why? **(15 Points)**

Question 3 (35 Points)

Win Hom Inc. reported total value of accounts receivable last year of $1,800 million with 25% gross profit margin. It has an inventory conversion period of 50 days, an average collection period of 45 days, and a payables deferral period of 40 days. In case that Win Hom Inc. needs short-term financing, ABC Bank offers a 20-days loan contract at 12% interest rate per year, but with 30% of compensating balance and the conditions of discount interest. Assume a 360-day year.

3.1 Calculate the company's gross profit last year, cash conversion cycle, and the amount of resources needed to support the cash conversion cycle. **(10 Points)**

3.2 Win Hom Inc. normally buys inventory on account with credit term of "**2/10, net 60**". However, the company has followed its payment policy of making payment 40 days after the goods are purchased. Calculate and compare the opportunity cost rate of foregoing cash discount in this case and the actual interest rate. Would it be better for company to take 2% cash discount? **(15 Points)**

3.3 If Win Hom Inc. paid 60 days after purchase (instead of 40 days), would the company benefit by taking the discount given the above-mentioned terms of short-term debt? Why? **(10 Points)**

Question 4 (30 Points)

4.1 What are differences between Market Value Added (MVA) and Economic Value Added (EVA)? If there exists conflict on the company's performance from these two measures, how could you draw recommendation for the shareholders **(10 Points)**

4.2 According to press releases from the World Bank (December 19, 2016), Thailand's economy is expected to grow at 3.1 percent in 2016 and 3.2 percent in 2017, up from 2.8 percent last year. If you are financial manager of the company, which current asset investment and financing policy should you recommend adopting? Why? **(10 Points)**

4.3 MUMMY company has always followed the policy of payment on the 30th day after the materials are purchased. Suppose that it is given the credit term of "**2/25, net 60**", explain if the company makes the right decision. Why?
(10 Points)