Name____

ID#____________

Accounting 15.501/516

Spring 2004

Midterm 1

Exam Guidelines

1. **Fill in your name above. Exams without names will not be graded. If you do not have an ID number, leave the corresponding space blank.**
2. **This exam has 14 pages including the cover page. Please make sure you have every page.**
3. **You are not allowed to refer to any material in answering this exam.**
4. **The exam has to be completed in 80 minutes. The total number of points is also 80, so you have approximately 1 point / minute. Budget your time accordingly.**
5. **Work in a clear, readable manner. Ample space is provided for every answer**
6. **Show computations for partial credit.**
7. **If you feel assumptions are necessary to answer a question, state all assumptions clearly.**
8. **Laptops and computers are prohibited. You may use calculators.**
9. **Do not fill in the following table.**

Question	**Total points**	**Points received**
1: Balance sheet equation	32	
2: Accounts receivables & revenue recognition	16	
3: Inventories	17	
4: Cash flow statement	15	
Total	**80**	

Question 1 **32 points**

Wilbur Retailers is a retail grocery store that always sells for cash. The following is a list of transactions and accounting entries for the half-year ended June 30, 2003. Using the Balance-Sheet-Equation Worksheet provided next page, record the dollar effect of every accounting entry. The first row provides you with the beginning balances in every account. Providing ending balances for every column. Assume Wilbur records all adjusting entries at the end of every six months.

1. On Jan 1, 2003 Wilbur Retailers purchases merchandise on account for $349,000. *2 points*
2. On Jan 1, 2003, Wilbur also pays rent for the next twelve months @ $1,200 per month. *2 points*
3. On March 1, Wilbur acquires new cash registers and price-scan equipment during the year for $15,000. It makes $8,000 down payment and promises to pay the rest in a bulk amount seven months from now. 3 *points*
4. On May 1, the company reaches an agreement with a supplier, Fast & Fresh for a long-term supply contract. Under this agreement, the company will source in July its remaining inventory requirements of $ 357,000 for the rest of the year from Fast & Fresh in return for a 10% discount. *2 points*
5. During the first half of 2003, Wilbur makes sales worth $ 550,000, all in cash. *2 points*
6. Wilbur also records warranty expenses on these sales, estimated at 0.5% of total sales. *2 points*
7. During the first half of 2003, the company pays warranty costs worth $1,452. *2 points*
8. In May, the company pays its suppliers of inventory $414,000 in cash. The payments are for earlier purchases on account. *2 points*
9. During the first half of 2003, company receives labor services from selling and administrative employees totaling $ 82,000. The company believes that all these were accrued expenses for the year. The company pays $80,000 in cash towards salaries. *2 points*
10. The company takes stock of its merchandise inventory as of June 30th. The value of this inventory as of June 30th is $221,000. The company records cost of goods sold. *4 points*
11. On June 30, the company recognizes rent expense for the current half-year. *3 points*
12. The company estimates and records depreciation expense for the half-year for an amount of $8,900. *2 points*

	Cash	Inventory	Prepaid rent	Buildings & Office equipment	- Accum. Deprecn.**	Accounts payable	Accrued Warranty liability	Salaries payable	Capital stock	Retained earnings
Beg. balance	10,000	200,000	0	163,000	(32,600)	20,000	1,000	1,000	100,000	218,400
1.		429,000				429,000				
2.	(14,400)		14,400							
3.	(8,000)			15,000		7,000				
4.										
5.	550,000									550,000
6.							2,750			(2,750)
7.	(1,452)						(1,452)			
8.	(414,000)					(414,000)				
9.	(80,000)							2,000		(82,000)
10.		(408,000)								(408,000)
11.			(7,200)							(7,200)
12.					(8,900)					(8,900)
13.	42,148	221,000	7,200	178,000	(41,500)	42,000	2,298	3,000	100,000	259,550

** Accum. Deprecn. = Accumulated Depreciation

Space for computations

Question 2 **16 points**

All figures reported below are in thousands of dollars. You may ignore this in your calculations. Assume that the following is CISCO's gross accounts receivables outstanding at the end of 2003 and 2002.

As of Dec 31	**2003**	**2002**
Accounts Receivables, gross	1,351	1,105

On Dec 31, 2003, Cisco estimates that uncollectible amounts are 15% of its total accounts receivables as of that date. At the end of 2002, CISCO had estimated uncollectible amounts to be 10% of its total year-end accounts receivables. The ending balance in Allowance for Doubtful Accounts every year equals the estimated uncollectible amount at the end of the corresponding year.

(a) What is the ending balance in the Allowance for Doubtful Accounts for 2003? What is the beginning balance? *2 points*

ADA_{BB2003} = 1,105 * 10% = 110.5

ADA_{EB2003} = 1,351 * 15% = 202.65

(b) What is the bad debt expense that Sears recorded in 2003, assuming no write-offs of accounts receivables? Provide the journal entry to record this bad debt expense. *2+2 points*

ADA_{BB} + Bad debt expense – Write-offs = ADA_{EB}

110.5 + Bad debt expense - 0 = 202.65

Bad debt expense = 92.15

Dr. Bad debt expense 92.15

Cr. Allowance for Doubtful Accounts 92.15

(c) Assume that during 2003, Cisco identified specific customer defaults worth $100. What is the journal entry to record these defaults? What is the new bad debt expense for 2003? *2+2 points*

Dr. Allowance for Doubtful Accounts 100

Cr. Accounts Receivables 100

ADA_{BB} + Bad debt expense – Write-offs = ADA_{EB}

110.5 + Bad debt expense - 100 = 202.65

Bad debt expense = 192.15

(d) Assume credit sales during the year amount to $1,556. Using the information in part (c), what is Ciscos' cash collection on credit sales? *4 points*

AR_{BB} + Credit sales – Cash collected – Write-offs = AR_{EB}

1,105 + 1,556 – Cash collected – 100 = 1,351

Cash collected = 1,210

(e) CISCO offers delivery service on some big orders. Assume customers phone in their orders and Cisco bills them immediately upon order receipt. However, customers are required to pay only when delivery is complete. If Cisco were to use the bill-and-hold practice, when would Cisco recognize income from such sales? Can you think of a recent SEC guideline that would prevent Cisco from using bill-and-hold? What would this guideline stipulate as the correct time to recognize income? *1+0.5+0.5 points*

Answer:

a. *Cisco would recognize income upon order receipt, before shipping.*
b. *SAB 101 would prevent Cisco from using bill-and-hold.*
c. *SAB 101 would stipulate that the correct time to recognize income is upon delivery of the order.*

Question 3 **17 points**

Qmart is a retail merchandiser. In 2003, Qmart reports LIFO cost of goods sold (COGS) for \$29,861. Qmart faces (and has always faced) a corporate tax rate of 40%. On analyzing Qmart's financial statements for 2001, you find the following footnote:

"….Inventories are stated at lower of cost or market. The last-in-first-out method is used to determine the value of inventories. Inventories reported for 2003 and 2002 using LIFO were respectively 5,537 and \$6,104. If inventories had been valued using FIFO, they would have been higher by \$ 371 and \$ 267 respectively. In 2003, Qmart liquidated LIFO layers. As a result of this liquidation, net income after taxes in 2003 is higher by \$ 24….." All values are in thousands of dollars. You may ignore this for your calculations.

Please make the following (simplifying) assumptions:

Qmart has never written down inventory, that is, market value of inventory has always been above LIFO cost. All of Qmart's sales and purchases during the year are in cash. COGS includes only costs paid for inventory sold. Qmart liquidated LIFO layers for the first time in 2003. The retained earnings of Qmart at the end of 2003 was \$75,000.

(a) If Kmart switched to reporting under FIFO in 2003, how would net income after taxes change? What is the value of new purchases under FIFO? *3+3 points*

Answer:

	LIFO Inventory		+	LIFO Reserve		=	FIFO Inventory	
given	6104		given	267		calculated	*6371*	
		29,861 given						**29,757 B solve**
A solve	**29,294**	→			→	**purchases**	**29,294**	
given	5537		given	371		calculated	*5908*	

- *Net income would be higher by the change in cost of goods sold of 104 (LIFO COGS 29,861 minus FIFO COGS 29,757). Net income after taxes would be higher by 104 *(1-.4 tax rate) = 62.4.*
- *Purchases are the same under LIFO and FIFO of 29,294.*

(b) If Qmart had not liquidated LIFO inventories during the year 2003, but sold the same volume of goods, what would its tax savings be? *3 points*

Answer:

- *The LIFO liquidation affected net income after taxes by 24 and affected pre-tax income, COGS, and the ending inventory balance by 24/(1-.4taxrate) = 40. Had the company not liquidated the LIFO layer, then the LIFO Reserve ending balance would be higher by 40, making the new balance 411 (=371 + 40). We compute the ADDITIONAL tax savings by 40*.4=16, and we compute TOTAL tax savings by taking the change in the LIFO Reserve (shown below) of 144 * .4 tax rate = 57.6.*

	LIFO Reserve	
given	267	
C solve	**144**	
changed	411	

(c) What is the cumulative tax savings to Kmart *over its life till date* from using LIFO and not FIFO? *4 points*

Answer:

- *We ignore the information in part (b). We take the original LIFO Reserve ending balance of 371 * .4 tax rate = 148.4 in tax savings.*

(d) Assume Qmart follows an alternate accounting method for reporting expenses. Instead of reporting LIFO cost of goods sold, Qmart just reports new purchases during the year as expenses for that year. How would Qmart's retained earnings reported at the end of 2003 be different if it had been using this new method of reporting expenses since its inception? Assume all other accounting policies remain the same. *4 points*

Answer:

- *If the new method had been used since the firm's inception, then all inventory purchases are expensed as CGS and no inventory ending balance would be recorded. Retained Earnings would be lower by 5,537 * (1-.4) = 3,322.*

Question 4 **15 points**

Provided below are Intel's balance sheet for 2003 and 2002, as well as the income statement for 2001. Use these to answer questions (a) through (b).

Balance sheet information

As on Dec 27	**2003**	**2001**
Cash & cash equivalents	7,971	7,404
Short-term investments	5,568	3,382
Accounts receivables, net	2,960	2,574
Inventories	2,519	2,276
Other operating current assets	3,864	3,289
Total current assets	**22,882**	**18,925**
PP&E, net	16,661	17,847
Long-term investments in securities	514	56
Goodwill	3,705	4,330
Other long-term assets	3,381	3,066
Total long-term assets	**24,261**	**25,299**
Total assets	**47,143**	**44,224**
Short-term debt	224	436
Accounts payable	1,660	1,543
Other operating current liabilities	4,995	4,616
Total current liabilities	**6,879**	**6,595**
Long-term debt	936	929
Other long-term liabilities	1,482	1,232
Capital stock	6,830	7,621
Retained earnings	31,016	27,847
Total stockholders equity	**37,846**	**35,468**
Total liabilities and stockholders equity	**47,143**	**44,224**

Income statement

For the year ended Dec 27	2003
Net revenue	30,141
Cost of sales	13,047
Gross margin	**17,094**
Operating expenses	7,915
Other non-cash expenses	1,545
Interest expenses	192
Income before taxes	**7,442**
Income taxes	1,801
Net income	**5,641**

Space for computations

(a) Assume “short-term investments” is a current asset that results from investing activities (as opposed to operating activities). Similarly, “short-term debt” is a current liability that results from financing activities. “Cost of sales” and “Operating expenses” on the income statement include depreciation expense of $4,651. “Other non-cash expenses” refers to non-cash (or accrued) expenses reported by Intel that have no effect on operating current assets and operating current liabilities. Please calculate operating cash flows and operating accruals. For partial credit, show step-by-step calculations following the format for an indirect cash flow statement you would see in an annual report. *9 points*

Answer:

Net Income	**5,641**
add: depreciation	4,651
add: other non-cash expenses	1,545
Subtract changes in	
Accounts receivables	(386)
Inventories	(243)
Other operating current assets	(575)
Add changes in	
Accounts payable	117
Operating Current Liabilities	379
Cash Flow from Operations	**11,129**

(b) Assume dividends are paid in cash when declared. What is the value of cash outflow on dividends? If this is the only financing cash flow, what is cash outflow/inflow on investments?

6 points

Answer:

Change in Retained Earnings	3,169	given
Net income	5,641	given
Dividends	**(2,472)**	**solve**
A. Net Cash Change	567	calculated
B. Cash Flow from Operations	11,129	calculated in part (a)
C. Cash Flow from Investing	(7,090)	given
Cash Flow from Financing = A - B - C	**(3,472)**	**solve**
Cash Flow from Financing other than dividends		(1,000)