University of Waterloo
Final Examination

Term: Fall Year: 2006

Student Name **Solution**

UW Student ID Number

Course Abbreviation and Number	AFM 101
Course Title	Core Concepts of Accounting Information
Section(s)	001, 002, 003
Instructors	Duane Kennedy, Tom Schneider

Date of Exam	Thursday, December 14, 2006	
Time Period	Start time: 4:00 pm	End time: 6:30 pm
Duration of Exam	2.5 hours	
Number of Exam Pages (including this cover sheet)	28	
Exam Type	Special Materials	
Additional Materials Allowed	Cordless calculators may be used. The calculator must be standalone with no communication or data storage features. Both the examination paper and multiple choice card must submitted.	

Marking Scheme:

Question	**Score**	**Question**	**Score**
1 (12 marks)		6 (8 marks)	
2 (11 marks)		7 (12 marks)	
3 (12 marks)		8 (8 marks)	
4 (10 marks)		9 (40 marks)	
5 (12 marks)			
		Total score: 125 marks	

Question 1 (12 marks)

A review of the financial records for Murray Company revealed the following information for 2006:

Cash dividend on preferred shares	\$2,800
Amortization of premium on bonds payable	1,650
Cash balance, January 1, 2006	12,250
Amortization expense for equipment	7,000
Net income	25,000
Stock dividend on common shares	4,200
Expenditure for the purchase of equipment	9,000
Net decrease in accounts payable	1,100
Net decrease in accounts receivable	1,900
Purchase of office equipment in exchange for note payable	2,700
Cash received from sale of delivery truck (net book value \$6,100)	4,800

Required:

Prepare the statement of cash flows for Murray Company for 2006 using the indirect method.
Please use the following table to complete this question.

Murray Company

Statement of Cash Flows

For the Year Ended December 31, 2006

Operating Activities:		
Net Income	**$25,000**	
Add (deduct) items not affecting cash		
Amortization of premium on bonds	**(1,650)**	
Amortization of equipment	**7,000**	
Net decrease in accounts payable	**(1,100)**	
Net decrease in accounts receivable	**1,900**	
Loss on sale of truck	**1,300**	
Net cash flow from operating activities		**$32,450**
Investing Activities:		
Purchase of equipment	**($9,000)**	
Sale of delivery truck	**4,800**	
Net cash flow from investing activities		**(4,200)**
Financing Activities		
Dividend on preferred shares	**($2,800)**	
Net cash flow from financing activities		**2,800**
Net increase in cash		**$25,450**
Cash balance, January 1, 2006		**12,250**
Cash balance on December 31, 2006		**$37,700**
Non-cash Investing and Financing Activities		
Purchase of office equipment in exchange for note payable		**$2,700**

Question 2 (11 marks)

You were recently hired as an accountant at Steele Corporation. As one of your first responsibilities, you are asked to prepare the bank reconciliation for November, 2006. You obtain the following information from the company records and the bank statement:

- October 31 balance in the cash account in Steele's ledger was $35,200
- October 31 balance shown on the bank statement was $33,950
- Company records show that cheques written in November were $58,750
- The bank reported one NSF cheque in the amount of $355
- Company records show deposits for the month of $49,800
- Bank service charges, $39
- The bank collected an outstanding note in the amount of $1,500 from Turner Co.
- The bank recorded six deposits during the month totaling $47,150
- The October bank reconciliation listed outstanding cheques of $5,100 and a deposit in transit for $6,350
- The bank cleared cheques totaling $59,250 during November

Required:

Prepare the bank reconciliation using the following table:

<table>
<tr><td colspan="2" align="center">Steele Corporation
Bank Reconciliation
November 30, 2006</td></tr>
<tr><td align="center"><u>Company's Books</u></td><td align="center"><u>Bank Statement</u></td></tr>
<tr><td>Ending cash balance per books **$26,250**</td><td>Ending cash balance per bank statement **$22,956**</td></tr>
<tr><td>Additions
Collection of note 1,500</td><td>Additions
Deposit in transit 9,000
$49,800 + 6,350 – 47,150</td></tr>
<tr><td>Deductions
NSF cheque (355)
Service charges (39)</td><td>Deductions
Outstanding cheques (4,600)
$58,750 + 5,100 – 59,250</td></tr>
<tr><td>Ending correct cash balance **$27,356**</td><td>Ending correct cash balance **$27,356**</td></tr>
</table>

October 31 balance	**$35,200**	**October 31 balance**	**$33,950**
+ deposits	**49,800**	**+ deposits ($47,150 + 1,500)**	**48,650**
- cheques	**(58,750)**	**- cheques**	**(59,250)**
		- other withdrawals ($355 + 39)	**(394)**
November 30 balance	**$26,250**	**November 30 balance**	**$22,956**

Question 3 (12 marks)

Required:

Answer the following independent questions.

A) Macnaughton Company authorized $150,000 of 5-year bonds dated January 1, 2006. The stated rate of interest was 10%, payable each June 30 and December 31. The bonds were issued on January 1, 2006, when the market interest rate was 12%. Assume effective-interest amortization. Calculate the issue price.

		Formula	Table
Present value of principal	**= $150,000 * PV(10,6%)**	**$83,759.22**	**$83,700**
	= $150,000 * (0.558)		
Present value of interest	**= $7,500 * PVA(10,6%)**	**55,200.65**	**55,200**
	= $7,500 * 7.360		
Issue price		**$138,959.87**	**$138,900**

B) Jha Corporation issued $1,000,000, 8 percent, 10-year bonds on January 1, 2006. Interest is paid annually. The market interest rate was 10% when the bonds were issued resulting in an issue price of $877,109. The company uses the straight-line method of amortization. Complete the following table:

Date	Interest Payment	Interest Expense	Amortization of Discount or Premium	Book Value
Dec. 31, 2007	**$80,000**	**$92,289.10**	**$12,289.10**	**$901,687.20**

Discount = $1,000,000 – 877,109 = $122,891
Amortization = $122,891 / 10 years = $12,289.10
Book Value = $877,109 + 12,289.10 * 2 years = $877,109 + 24,578.20 = $901,687.20

C) Vetzal Limited borrowed $500,000 from the bank by signing a four-year note. The interest rate on the note is six percent. The company has to repay the note in four equal payments, beginning in twelve months. Calculate the amount of the annual payment.

$500,000	**= payment * PVA(4,6%)**
	= payment * 3.465
payment	**= $144,300 (table)**
	or $144,295.75 (formula)

D) O'Brien Company issued a $1,000,000 zero coupon bond on July 1, 2006. The bond is due in 10 years. The market interest rate is 4%. Calculate the issue price for the bond. (Hint: The interest rate on a zero coupon bond is 0%.)

Issue price	**= $1,000,000 * PV(10,4%)**
	= $1,000,000 (0.676)
	= $676,000 (table)
	or $675,564.17 (formula)

Question 4 (10 marks)

Required:

Answer the following independent questions.

A) Gunz Corporation purchased a robot to be used in manufacturing. The purchase was made on January 2, 2004 by paying cash of $500,000. The robot has an estimated residual value of $20,000 and an expected useful life of 10 years. At the beginning of 2007, the management of Gunz Corporation concluded that the total useful life of the robot will be 8 years rather than 10, and that the residual value will be zero. Gunz Corporation uses the straight-line method for amortization. Record the journal entry for amortization for 2007.

Amortization (2004-2006) = ($500,000 – 20,000) / 10 years = $48,000 / year

Net Book Value (Jan. 1, 2007) = $500,000 – 3 * $48,000 = $356,000

Amortization for 2007 = $356,000 / 5 years = $71,200

Amortization expense	**$71,200**	
Accumulated amortization		**$71,200**

B) In early 2006, Pamukcu Limited completed development of a mine in Northern Ontario. Total development cost was $15,000,000. This cost is shown on the Balance Sheet as Mineral Reserves. Management estimates that the mine contains 500,000 kg of minerals. The minerals will be extracted over the next eight years. After all the minerals are extracted, the mine will have no residual value. During 2006, 40,000 kg of minerals are extracted. Prepare the journal entry to record the extraction of the minerals.

Depletion rate = $15,000,000 / 500,000 kg = $30 / kg

Inventory of minerals	**$1,200,000**	
Mineral reserves		**$1,200,000**
40,000 kg * $30 / kg		

C) Wallace Company acquired a machine on January 1, 2004, at a cost of $40,000. The machine has an estimated useful life of five years and an estimated residual value of $4,000. The management of Wallace Company estimates that the machine can be operated 12,000 hours over its lifetime. The machine was operated 2,300 hours in 2004 and 2,800 hours in 2005. Wallace Company uses the declining balance amortization method with a 150% acceleration rate. The machine was sold on January 2, 2006, for $15,000 cash. Prepare the journal entry to record the sale of the machine.

Amortization rate = 20% (based on 5 years) * 150% = 30%

	Calculation	Amortization Expense	Net Book Value
January 1, 2004			**$40,000**
December 31, 2004	**30% * $40,000**	**$12,000**	**28,000**
December 31, 2005	**30% * $28,000**	**8,400**	**19,600**

Cash	**$15,000**	
Accumulated amortization	**20,400**	
Loss of sale of machine	**4,600**	
Machine		**$40,000**

Question 5 (12 marks)

The following transactions and events occurred during 2006 at Laiken Limited. The fiscal year end is December 31. **Treat each transaction / event independently.**

Required:

A) Laiken Limited recorded cash sales of $325,000 and credit sales of $675,000 for the 2006 fiscal year. The accounts receivable balance on December 31, 2006, is $78,000 and allowance for doubtful accounts is $1,355. A review of prior years indicates that approximately two percent of credit sales will not be collected. Prepare the adjusting entry required at December 31, 2006, or explain why no entry is required.

Bad debt expense	**$13,500**	
Allowance for doubtful accounts		**$13,500**
2% * $675,000		

B) Laiken Limited has 15,000 common shares and 10,000 preferred shares outstanding. The preferred shares are cumulative, have an annual dividend rate of $2 per share, and no dividends were paid in 2005. On May 15, the Board of Directors declares a dividend of $55,000 payable on June 15 to shareholders of record on May 28. Prepare the journal entry to record the declaration of the dividend.

Retained earnings	**$55,000**	
Dividends payable – preferred shares		**$40,000**
Dividends payable – common shares		**15,000**

C) On January 20, 2007, Laiken Limited receives a utility bill for $840 for the period December 15, 2006, to January 15, 2007. Prepare the adjusting entry required at December 31, 2006, or explain why no entry is required.

Utilities expense	**$420**	
Utilities payable		**$420**

D) On December 1, 2006, Laiken Limited signs a note to borrow $50,000 from the bank to finance holiday sales. The note is due in 75 days and the interest rate is 10%. Prepare the adjusting entry required at December 31, 2006, or explain why no entry is required.

Interest expense	**$411**	
Interest payable		**$411**
$50,000 * 10% * 30/365		

E) Laiken Limited has 15,000 common shares outstanding with a book value of $150,000 and 10,000 preferred shares outstanding with a book value of $140,000. The preferred shares are cumulative and have an annual dividend rate of $2 per share. The dividends on preferred shares were paid in May 2006. Retained earnings were $668,000 on January 1, 2006. On November 1, 2006, the company declares a 20% stock dividend on the common shares. The dividend will be issued on December 1, 2006, to shareholders of record on November 15. The market price per share for the common shares on November 1 is $25. Complete the following table showing balances **after** the stock dividend:

	Number of Shares	**Dollar Value**
Common shares	**18,000**	**$225,000**
Preferred shares	**10,000**	**140,000**
Retained earnings		**573,000**
Total		**938,000**

Dividends on preferred shares = 10,000 shares * $2 / share = $20,000
Common shares = 15,000 shares + 20% (15,000) = 18,000 shares
Dollar value for common shares
= $150,000 + 3,000 shares * $25/share
= $150,000 + 75,000
= $225,000
Retained earnings = $668,000 – 75,000 – 20,000 = $573,000

Question 6 (8 marks)

The records for Huang Company show the following inventory transactions for the month of November 2006:

Date	Transactions	Number of Units	Unit Cost
Nov. 1	Beginning inventory	500	$20
Nov. 8	Purchase	600	$22
Nov. 16	Purchase	200	$25

Sales for the month of November were 1,000 units at an average selling price of $40 per unit.

Required:

Complete the following table:

	Number of Units	Cost Using the Following Inventory Methods		
		FIFO	LIFO	Weighted Average
Cost of Goods Sold	**1,000**	**$21,000**	**$22,200**	**$21,692**
Ending Inventory	**300**	**7,200**	**6,000**	**6,508**

FIFO COGS = 500 units x $20/unit + 500 units x $22/unit = $21,000

FIFO Inventory = 100 units x $22/ unit + 200 units x $25/unit = $7,200

LIFO COGS = 200 units x $25/unit + 600 units x $22/ unit + 200 units x $20/unit = $22,200

LIFO Inventory = 300 units x $20/unit = $6,000

Weighted Average = (500 x $20 + 600 x $22 + 200 x $25) / 1,300 units = $21.69 / unit
COGS = 1,000 units x $21.69/unit = $21,692
Inventory = 300 units x $21.69/unit = $6,508

Question 7 (12 marks)

The following information was taken from the financial statements of Forsyth Company for the years 2006 and 2005:

Income Statement	**2006**	**2005**
Net operating revenues	$ 110,000	$ 100,000
Cost of goods sold	52,000	49,000
Gross profit	58,000	51,000
Selling, administrative and general expenses	40,000	37,000
Income before taxes	18,000	14,000
Income tax expense (30%)	5,400	4,200
Net income	$12,600	$9,800

Balance Sheet		
Cash and cash equivalents	$ 49,500	$ 18,000
Trade accounts receivables, net of allowance for doubtful accounts of $700 ($450) in 2006 (2005)	37,000	32,000
Inventories	15,000	26,000
Prepaid expenses and other assets	10,000	12,000
Total current assets	111,500	88,000
Property, plant and equipment, net of accumulated amortization of $36,000 ($28,000) in 2006 (2005)	95,000	105,000
Total assets	$206,500	$193,000
Accounts payable	$ 42,000	$ 35,000
Income taxes payable	1,000	500
Long-term debt	40,000	40,000
Common shares (9,000 shares)	90,000	90,000
Retained earnings	33,500	27,500
Total liabilities and stockholders' equity	$206,500	$193,000

Required:

Calculate the following ratios for 2006:

A) Total asset turnover ratio

$$\mathbf{\frac{\$110{,}000}{½(\$206{,}500 + 193{,}000)} = \frac{\$110{,}000}{\$199{,}750} = 0.55}$$

B) Inventory turnover ratio

$$\frac{\$52{,}000}{\tfrac{1}{2}(\$15{,}000 + 26{,}000)} = \frac{\$52{,}000}{\$20{,}500} = 2.54$$

C) Return on equity

$$\frac{\$12{,}600}{\tfrac{1}{2}[(\$90{,}000 + 33{,}500) + (90{,}000 + 27{,}500)]}$$

$$= \frac{\$12{,}600}{\tfrac{1}{2}(\$123{,}500 + 117{,}500)} = \frac{\$12{,}600}{\$120{,}500} = 0.1046 \text{ or } 10.46\%$$

D) Quick ratio

$$\frac{\$49{,}500 + 37{,}000}{\$42{,}000 + 1{,}000} = \frac{\$86{,}500}{\$43{,}000} = 2.01$$

E) Gross profit percentage

$$\frac{\$58{,}000}{\$110{,}000} = 0.5273 \text{ or } 52.73\%$$

F) Dividend Payout Ratio

Dividends = $27,500 + 12,600 – 33,500 = $6,600

$$\frac{\$6{,}600}{\$12{,}600} = 0.5238 \text{ or } 52.38\%$$

Question 8 (8 marks)

The answers to the following questions must appear in the space provided.

A) The article "How Leases Play a Shadowy Role in Accounting" talks about issues in accounting for leases. Briefly discuss why a company would prefer to classify a lease as an operating lease rather than a capital lease.

Classifying a lease as an operating lease lowers the liabilities on the Balance Sheet. This allows for additional debt and avoids violating debt covenants. It also reduces assets which increases the Return on Assets ratio.

B) The article "Microsoft's Past Options Practices Skirted Accounting Rule, Experts Say" discusses the issue of backdating. Briefly explain the practice of "backdating."

Backdating involves selecting a date in the past to be the grant date. The chosen date had the lowest stock price within a particular recent time period (e.g., lowest price in the last month). Backdating is done to increase the value of stock options to the recipient without creating an expense for the issuing company.

C) The article "Costly Inventory Lesson for Some Short-Sellers" discusses the impact of the LIFO and FIFO inventory methods on profits. Discuss the impact on the financial statements of using LIFO in a period of declining prices.

Using LIFO in a period of declining prices results in lower COGS, higher gross margin, higher net income, higher shareholders' equity, higher inventory, and higher total assets than using FIFO.

D) Discuss one advantage and one disadvantage of the corporate business structure compared to organizing a business as a proprietorship or partnership. (It is not sufficient to list two points; your answer must explain why it is an advantage or disadvantage.)

Advantages:

Limited liability
Easier to raise capital
Unlimited lifespan for entity
Easier to transfer ownership by trading shares

Disadvantages:

Potential loss of control
Agency costs as managers may not act in the best interests of the owners
Double taxation
More costly to start
More complexity in ownership / management structure

Question 9 (40 marks)

Question 9 consisted of 40 multiple choice questions. There was no mark penalty for incorrect responses. The answers had to be recorded on a University of Waterloo answer card.