

Suggested Solution
Midterm Examination (Regular)
Fall 2012

Question 1 (24 marks; 43 minutes) (each correct answer is worth 1.5 marks)

1. A
2. D
3. D
4. C
5. D
6. A
7. D
8. B
9. B
10. D
11. C
12. D
13. B
14. C
15. A
16. C

Question 2 (13 marks):

Requirement 1

April 1	Cash	12,000	
	Deferred Revenues		12,000
April 2	Trade Receivables	305	
	Cash		305
OR:	Trade Receivables	300	
	Bank Service Charges	5	
	Cash		305

April 20	Trade Receivables	1,000	
	Sales Revenues		1,000
	Cost of Sales	600	
	Inventories		600
April 28	Cash	980	
	Sales Discounts	20	
	Trade Receivables		1,000
May 1	Equipment	5,000	
	Cash		1,500
	Note Payable		3,500
May 10	Building	120,000	
	Share Capital		120,000
June 15	No Entry		

Requirement 2

Deferred Revenues recorded on April 1st:

Deferred Revenues	9,000	
Sales Revenues		9,000

$$(\$12,000/4) \times 3 = 9,000$$

Notes Payable on May 1:

Interest Expense	70	
Interest Payable		70

$$\$3,500 \times (12\%/12) \times 2 = 70$$

Question 3 (41 marks)

Requirement 1

a)	Prepaid insurance	3,600	
	Insurance expense		3,600
	(\$1,800 x 2)		
b)	Interest receivable	4,200	
	Interest income		4,200
	\$60,000 x 7% x (2/12)		
c)	Depreciation expense	30,000	
	Accumulated depreciation -- building		18,000
	Accumulated depreciation -- equipment		12,000
	(\$720,000 / 40 = \$18,000) ; (\$240,000 / 20 = \$12,000)		
d)	Compensation (bonuses) expense	50,000	
	Compensation (bonuses) payable		50,000
e)	Office supplies expense	1,400	
	Office supplies inventory		1,400
	(\$9,400 - \$8,000)		
f)	Deferred rent revenue	10,000	
	Rental income		10,000
	(\$16,000 x 10 / 16)		
g)	Interest expense	800	
	Interest payable		800
	(\$80,000 x 6% x 2/12)		
h)	Income tax expense	176,920	
	Income tax payable		176,920
	See income statement below for calculation.		

Requirement 2

Jones and Smith Ltd.
Income Statement
For the year ended December 31, 2012

Sales revenue	\$1,983,000	
Less: Sales returns and allowances	<u>20,000</u>	
Net sales	1,963,000	
Cost of goods sold	<u>720,000</u>	
Gross Profit	<u>1,243,000</u>	
Operating expenses:		
Salaries expense	220,000	
Advertising expense	76,000	
Management bonuses	50,000	
Depreciation expense	30,000	
Insurance expense	10,400	(\$14,000 - \$3,600)
Office supplies expense	<u>1,400</u>	
Total operating expenses	<u>387,800</u>	
Operating profit	855,200	
Other income (expense):		
Rental income	10,000	
Gain on sale of long-term investments	<u>16,000</u>	
Profit before interest and income taxes	881,200	
Interest income	4,200	
Interest expense	<u>(800)</u>	
Profit before income taxes	884,600	
Income tax expense	<u>176,920</u>	(\$884,600 x 20%)
Profit	<u>\$707,680</u>	
Earnings per share (EPS)	\$35.38	(\$707,680 / 20,000)

Requirement 3

Jones and Smith Ltd.
Statement of Financial Position
As at December 31, 2012

Assets

Current assets

Cash	\$150,000	
Trade receivables	168,600	
Note receivable, 7%, due February 28, 2013	60,000	
Interest receivable	9,100	(\$4,900 + \$4,200)
Merchandise inventory	140,000	
Office supplies inventory	8,000	
Prepaid insurance	<u>3,600</u>	(2 x \$1,800)
Total current assets	539,300	

Non-current assets

Land	\$114,100	
Building, net *	582,000	(\$720,000-\$120,000-\$18,000)
Equipment, net *	<u>180,000</u>	(\$240,000-\$48,000-\$12,000)

Total assets \$1,415,400

* Alternatively, the cost and accumulated depreciation amounts could be presented separately.

Liabilities and Shareholders' Equity

Current Liabilities

Trade payables	\$ 150,000	
Management bonuses payable	50,000	
Note payable, 6%, due February 28, 2013	80,000	
Income taxes payable	176,920	
Interest payable	800	
Deferred rent revenue	<u>6,000</u>	(\$16,000-\$10,000)
Total liabilities	<u>463,720</u>	

Shareholders' Equity

Share capital (20,000 shares)	\$ 100,000	
Retained earnings	<u>851,680</u>	*
Total Shareholders' Equity	<u>951,680</u>	
Total Liabilities and Shareholders' Equity	<u>\$1,415,400</u>	

* $\$180,000 + \$707,680 - \$36,000 = \$851,680$

Requirement 4

a. Age of building, 12/31/12 = Post-adjusted Accumulated Depreciation / Depreciation Expense = $(\$120,000 + \$18,000) / \$18,000 = 7.7$ years, 8 years (rounded).

b. Net profit margin ratio = Profit / Net sales = $\$707,680 / \$1,963,000 = 36.1\%$.

This ratio measures how much profit has been earned from every sales dollar generated during the period, after covering all expenses (including income taxes).

c. Return on equity = Profit / Average Shareholders' Equity = $\$707,680 / \$615,840^* = 115\%$

* $(\$100,000 + \$180,000 + \$951,680) / 2 = \$1,231,680 / 2 = \$615,840$

This ratio indicates how much the firm earned for each dollar of investment by shareholders. In this case the ratio is excellent, over 100%!

Question 4 (22 marks) --This question consists of two independent parts.

Part A (12 marks):

Requirement 1:

May 5:	Allowance for Doubtful Accounts	5,000	
	Trade Receivables		5,000
Oct 10:	Trade Receivables	1,000	
	Allowance for Doubtful Accounts		1,000
	Cash	1,000	
	Trade Receivables		1,000

Requirement 2:

Allowance for Doubtful Accounts in 2010:

$$\$230,000 * 1\% + \$40,000 * 5\% + \$30,000 * 10\% = \$7,300.$$

Allowance for Doubtful Accounts in 2011:

$$\$300,000 * 1\% + \$50,000 * 5\% + \$40,000 * 10\% + \$10,000 * 15\% = \$11,000$$

Bad Debt Expense in 2011:

$$\$7,300 - \$5,000 + \$1,000 + X = \$11,000$$

$$X = \$7,700$$

Bad Debt Expense 7,700

Allowance for Doubtful Accounts 7,700

Requirement 3:

Mountaineer Inc.
Statement of Financial Position (partial)
As at December 31, 2011
(\$)

Current assets:

:

Trade receivables	400,000
Less: Allowance for doubtful accounts	<u>11,000</u>
Net realizable value of trade receivables	<u>389,000</u>

Part B (10 marks):

Requirement 1:

Net Credit Sales: $\$2,100 / 0.2\% = \$1,050,000$

Gross Profit = $\$1,050,000 - \$1,050,000 \times 40\% = \$630,000$

Requirement 2:

Receivables Turnover Ratio = Net Credit Sales / Average Net Trade Receivables

$$= \$1,050,000 / [(\$160,000 + \$140,000) / 2] = 7$$

The Receivables Turnover Ratio reflects how many times trade receivables were recorded and collected during the period. In 2011, Buckeye's trade receivables were recorded and collected seven times. Buckeye's trade receivables turnover is much better than the stated credit terms (12.17 times, 365/30). Buckeye's management appears to manage its receivables very well.

Requirement 3:

Overall, all three companies appear to manage their receivables fairly well, since their receivables turnover ratios are all below the standard credit terms. Relatively speaking, Buckeye's customers seem to be paying amounts due faster than Huskies' customers, but slower than Bruins' customers are.

Requirement 4:

No impact on Gross Profit .

Reason: Gross Profit = Net Sales – COGS . The write-off would not change either element.

No impact on Receivables Turnover Ratio .

Reason: Receivables Turnover Ratio = Net Credit Sales / Average Net Trade Receivables. The write-off wouldn't change either the numerator or the denominator. A write-off would decrease both the Trade Receivables and the contra-account Allowance for Doubtful Accounts by the same amount, i.e., Net Trade Receivables would not change.