

**Suggested Solution**  
**Mid-term Examination**  
**Winter 2012**

**Question 1 (18 marks)**     *Multiple-choice*     (1.5 marks per correct answer)

1. c
2. b     $\text{Change in Equity} = (\$150,000 - \$104,000) - (\$60,000 - \$40,000) = \$26,000$   
Change in Equity = Profit – Dividends;     $\$26,000 = P - \$10,000$ ;     $P = \$36,000$
3. a
4. c
5. c     $\text{COS} = [\$10,000 + (41,000 - 800 - 1,200)] - 8,000 = \$41,000$   
NS =  $\$98,000 - 2,000 = \$96,000$ ;    GP =  $\text{NS} - \text{COS} = \$96,000 - 41,000 = \$55,000$   
GP% =  $\$55,000 / \$96,000 = 57.3\%$
6. d
7. b
8. c
9. c
10. a
11. d
12. b    Balance at Jan. 31 =  $\$8,000 + 50,000 - 54,000 = \$4,000$

**Question 2 (17 marks)**

Req.1 (12.5 marks)

Oct 2	Cash	10,000	
	Equipment	5,000	
	Share capital		15,000
Oct 7	Equipment	20,000	
	Cash		10,000
	Note payable		10,000

Nov 15	Trade receivables	10,000	
	Sales revenue		10,000
	Cost of sales (or Cost of goods sold)	7,500	
	Inventory		7,500
Nov 18	Sales returns and allowances	1,000	
	Trade receivables		1,000
	Inventory $[\$7,500 \times (1,000/10,000)]$	750	
	Cost of sales (or Cost of goods sold)		750
Nov 20	No entry because there is no transaction.		
Nov 22	Cash	8,820	
	Sales discounts $[(\$10,000 - 1,000) \times 2\%]$	180	
	Trade receivables		9,000
Dec 1	Prepayments (or Prepaid rent)	18,000	
	Cash		18,000
Dec 20	Cash	20,000	
	Deferred revenue		20,000
Dec 24	Salaries expense	6,000	
	Cash		6,000

Req.2 (4.5 marks)

Dec 31	Rent expense $[\$18,000 / 12 \text{ months}]$	1,500	
	Prepayments (or Prepaid rent)		1,500
	Deferred revenue $[\$20,000 \times 40\%]$	8,000	
	Service revenue		8,000
	Salaries expense $[\$6,000 / 2 \text{ weeks}]$	3,000	
	Salaries payable		3,000
	Employees worked for six days, from December 26 to December 31 inclusive, and were not paid.		

An amount of \$2,500 is also acceptable if one considers December 26 (boxing day) as a holiday.

**Question 3 (26 marks)****Req. 1** Adjusting journal entries, December 31, 2011 (9 marks)

a)	Interest receivable .....	750	
	Interest income (or revenue) .....		750
	(60,000 x 5% x 3/12)		
b)	Interest expense .....	100	
	Interest payable .....		100
	(30,000 x 4% x 1/12)		
c)	Deferred rent revenue .....	4,000	
	Rent revenue .....		4,000
	(\$6,000 / 3) x 2		
d)	Depreciation expense .....	15,625	
	Accumulated depreciation - equipment .....		15,625
	(\$140,625 / 9 years, 2002 - 2010)		
e)	Retained earnings (or Dividends declared) .....	60,000	
	Dividend payable .....		60,000
	(100,000 shares x \$0.60)		
f)	Income tax expense .....	74,700	
	Income taxes payable .....		74,700
	(\$249,000 x 30% – see below)		

Req. 2 (7 marks)

Charmar Inc.  
Income Statement  
For the year ended December 31, 2011

Sales revenue	\$999,000	
Less: Sales returns and allowances	<u>12,000</u>	
Net sales	987,000	
Cost of goods sold	<u>490,000</u>	
Gross Profit	<u>497,000</u>	
Operating expenses:		
Salaries expense	222,000	
Depreciation expense	15,625	
Other operating expenses	<u>15,025</u>	
Total operating expenses	<u>252,650</u>	
Operating profit	244,350	
Other income (expense):		
Rent revenue	4,000	
Interest income	750	
Interest expense	<u>(100)</u>	
Profit before income taxes	249,000	
Income tax expense	<u>74,700</u>	(249,000 x 30%)
Profit	<u>\$174,300</u>	
Earnings per share (EPS)	\$1.74	(174,300 / 100,000)

Req. 3 (6 marks)

Charmar Inc.  
Statement of Financial Position (partial)  
As at December 31, 2011

## Liabilities and Shareholders' Equity

## Current Liabilities

Trade payables	\$ 70,400	
Dividends payable	60,000	
Income taxes payable	74,700	
Note payable, December 31, 2012	30,000	
Interest payable	100	
Deferred rent revenue	<u>2,000</u>	(6,000 – 4,000)
Total Current Liabilities	<u>237,200</u>	

## Shareholders' Equity

Common shares (100,000 shares)	620,000	
Retained Earnings	<u>279,300</u>	(165,000 + 174,300 – 60,000)
Total Shareholders' Equity	<u>899,300</u>	
Total Liabilities and Shareholders' Equity	<u>\$1,136,500</u>	

Req. 4: (4 marks)      Selected financial ratios

- a. Profit margin ratio = Profit / Net sales = \$174,300 / \$987,000 = 17.7%.

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

- b. Return on equity = Profit / Average Shareholders' Equity = \$174,300 / \$842,150\* = 20.7%

$$* (\$620,000 + 165,000 + 899,300) / 2 = \$842,150$$

This ratio indicates how much the firm earned for each dollar of investment by shareholders.

**Question 4 (20 marks)**Reg. 1 (6 marks)

Oct. 8	Allowance for doubtful accounts	1,500	
	Trade receivables		1,500
Nov. 5	Cash	7,350	
	Sales discounts	150	
	Trade receivables		7,500
Nov. 16	Cash	4,000	
	Sales returns and allowance	1,000	
	Trade receivables		5,000
Dec. 20	Trade receivables	500	
	Allowance for doubtful accounts		500
	Cash	500	
	Trade receivables		500

Reg. 2 (6 marks)

Age Group	Amount Receivable	Estimated Percent Uncollectible	Estimated Amount Uncollectible
Not yet due	\$0	1%	\$ 0
1-30 days past due	\$10,000 – 6,000 = \$4,000	5%	200
31-60 days past due	0	10%	0
More than 60 days past due	\$9,500 – 1,500 = \$8,000	15%	1,200
Total	<u>\$12,000</u>		<u>\$1,400</u>

Ending balance of Allowance for Doubtful Accounts (at the end of 2011) is \$1,400.

Bad debt expense (for the year of 2011) = \$1,400 – (1,300 + 500 – 1,500) = \$1,100.

Dec. 31	Bad debt expense	1,100	
	Allowance for doubtful accounts		1,100

Req. 3 (5 marks)

Wolverine Inc.  
Statement of Financial Position (partial)  
December 31, 2011

Current assets:

:

Trade receivables	\$12,000
Less: Allowance for doubtful accounts	<u>1,503</u>
Net realizable value	<u>\$10,497</u>

Calculations:

$$\begin{aligned}\text{Net sales (for the year of 2011)} &= \$100,000 + (5,000 + 7,500 + 10,000) - (150 + 1,000 + 1,000) \\ &= \$120,350\end{aligned}$$

$$\text{Bad debt expense (for the year of 2011)} = \$120,350 \times 1\% = \$1,203 \text{ (rounded), or } \$1,204$$

$$\text{Allowance for doubtful accounts, Dec. 31} = (\$1,300 + 500 - 1,500) + 1,203 = \$1,503$$

Req. 4 (3 marks)

$$\text{Gross Profit Percentage} = (\$120,350 - 60,000) / 120,350 = 50.15\%.$$

In general, the *Gross Profit Percentage* measures how much gross profit is generated from every sales dollar. From 2009 to 2011, Wolverine's *Gross Profit Percentage* increased.

Therefore, Wolverine appears to have enhanced its ability to charge premium prices and/or produce goods at low cost.

**Question 5 (19 marks)**Part A (13 marks)Req. 1 (5 marks)

Net sales = (number of units sold - returned units) x \$120 = (3 + 4 + 5 - 2) x \$120 = \$1,200

COGS = COGAS - EI = (5 x \$90) + (11 x \$95) - 4 x \$95 = \$1,115

Alternatively, COGS, FIFO = (5 x \$90) + (7 x \$95) = \$1,115 (3 marks) ("7" because returned units were destroyed).

Gross profit = NS - COGS = \$1,200 - 1,115 = \$85

Req. 2 (4 marks)

Jan. 6	Purchases	1045	(11 x 95)
	Trade payables		1045
Jan. 8	Trade receivables	480	(4 x 120)
	Sales		480
Jan. 15	Sales returns and allowances	240	
	Trade receivables		240

Req. 3 (4 marks)

For the sale on Jan. 3, the average cost of goods is \$90 per unit.

For the sales on Jan. 8 and 9, the average cost per unit needs to be calculated.

Average cost = [(5 - 3) x \$90 + 11 x \$95] / 13 = (\$180 + 1,045) / 13 = \$94.23 per unit

COGS = (3 x \$90) + (4 + 5) x \$94.23 = \$270 + 848 (rounded) = \$1,118

PART B (4 marks)

Req. 1 (2 marks)

El, Product A should be increased by \$5,000; its COGS should be reduced by \$5,000.

Bl, Product B should be reduced by \$3,000; its COGS should be reduced by \$3,000.

$$\text{COGS, A} = \$72,000 - \$5,000 = \$67,000$$

$$\text{COGS, B} = \$68,000 - \$3,000 = \$65,000$$

Req. 2 (2 marks)

The original COGS for both products =  $\$72,000 + \$68,000 = \$140,000$

The corrected COGS for both products =  $\$67,000 + \$65,000 = \$132,000$

As a result, gross profit would increase by \$8,000, and Profit before income taxes would increase by the same amount. Profit would increase by  $\$8,000 \times (1 - 0.30) = \$5,600$ .

PART C (2 marks)

- A. FIFO or Specific identification
- B. FIFO
- C. Weighted average cost
- D. Specific identification