

FINAL EXAMINATION (REGULAR)  
WINTER 2014

**Question 1 Multiple Choice:**

**(18 marks; 25 minutes)**

1. b   2. d   3. b   4. d   5. d   6. a   7. a   8. b   9. d   10. c   11. b   12. a

**Question 2 Financial Statements:**

**(19 marks; 25 minutes)**

**1. (6 marks)**

- a. Quick ratio = Cash and near-cash assets / Current Liabilities  
 $= (38,675 + 70,040) / 190,184 = 0.57$
- b. Times interest earned ratio = Profit before Interest and Taxes / Interest Expense  
 $= 97,118 / 5,809 = 16.72$
- c. Debt-to-Equity ratio = Total Liabilities / Shareholder's Equity  
 $= 355,144 / 296,250 = 1.20$
- d. Fixed asset turnover ratio = Net Sales / Average Net Fixed Assets  
 $= 1,513,646 / [(274,027 + 270,370) / 2] = 5.56$

**2. (2 marks)**

It would be the Fixed Asset Turnover Ratio. This ratio measures how effectively management is utilizing its property, plant, and equipment to generate revenues and is an overall measure of profitability. It does not measure liquidity and/or solvency, which would be of greater interest to a loan officer because they measure the ability of the company to meet its short-term and long-term debts, respectively.

**3. (3 marks)**

The following ratios could be considered.

- a. Return on Equity – Investors expect to earn more money if they invest more money. This ratio relates the profit to the investment made by the owners.
- b. Return on Assets – While this ratio disregards the method by which the assets were financed, it is a profitability measure and is considered to be a better measure of management's ability to use assets effectively to generate profit.
- c. Earnings per Share – This is a measure of the return on investment based on the number of shares outstanding rather than the dollar figure.
- d. Quality of Earnings – Because accrual accounting allows management to make decisions and choices regarding accounting procedures that can result in higher or lower earnings reports (i.e. earnings management) a measure of earnings quality is important.

e. Profit Margin – A profitability measure that indicates the percentage of each sales dollar, on average, that represents profit. It measures how effective management is at controlling revenues and expenses to generate more profit on sales.

f. Price/Earnings – This ratio reflects the stock market’s assessment of the company’s future business performance. A high ratio indicates that the market expects the company’s earnings to grow rapidly.

g. Dividend Yield – Investors expect to receive a return on their investment through an appreciation in stock price and potentially through dividends. This ratio measures the relationship between the dividend paid and the current share price.

**4. (2.5 marks)**

$$\begin{aligned}\text{Trade payable turnover ratio} &= \text{Cost of Sales} / \text{Average Net Trade Payable} \\ &= 1,068,940 / [(127,481 + 119,943) / 2] = 8.64\end{aligned}$$

North West, on average, pays its suppliers in about 42 days ( $365 / 8.64$ ), longer than the 30 days the suppliers normally demand.

**5. (2.5 marks)**

$$\begin{aligned}\text{Purchase} &= \text{COGS} + \text{Ending Inventory} - \text{Beginning Inventory} \\ &= 1,068,940 + 187,200 - 186,124 = 1,070,016\end{aligned}$$

$$\begin{aligned}\text{Cash paid to suppliers} &= \text{Beginning Trade Payable} + \text{Purchase} - \text{Ending Trade Payable} \\ &= 119,943 + 1,070,016 - 127,481 = 1,062,478\end{aligned}$$

**6. (1.5 mark)**

There are at least two reasons. First, as a grocer, North West’s inventories are primarily food items which are perishable. First-in, first-out is consistent with the physical flow of the company’s inventories. Second, the cost of food items is more likely to increase; therefore, first-in, first-out method generally results in a higher profit.

**7. (1.5 marks)**

Yes, North West paid dividend because the difference in retained earnings is smaller than the amount of net income.

The attached financial statement doesn’t provide enough information to calculate the amount of dividend paid, because the balance of “dividend payable” could be included in the balance of “Accounts payable and accrued liabilities”.

**Question 3 Inventory and Cost of Sales:****(12 marks, 20 minutes)****1. (5 marks)**

Weighted cost per bottle calculated on January 15  
 $= (\$3,600 + \$25 \times 100^2) / (150^1 + 100^2) = \$24.4$

Cost of Sales recorded on January 31  
 $= \$24.4 \times 150^3 = \$3,660$

Weighted cost per bottle calculated on February 25  
 $= [\$24.4 \times 100^4 + \$26 \times 100] / [100^4 + 100^5] = \$25.2$

Cost of Sales recorded on March 1  
 $= \$25.2 \times 150^6 = \$3,780$

Weighted cost per bottle calculated on March 15 (i.e., ending balance)  
 $= \$25.2 \times 50^7 + \$27 \times 50^8 = \$2,610$

**Ending Inventory = 2,610****Total cost of sales = \$3,660 + \$3,780 = \$7,440**

Note:

1. # of bottles as at January 1
2. # of bottles purchased on January 15
3. # of bottles sold on January 31
4. # of bottles after the Sale on January 31
5. # of bottles purchased on February 25
6. # of bottles sold on March 1
7. # of bottles after the Sale on March 1
8. # of bottles purchased March 15

**2. (3.5 marks)**

Since the purchase price has been increasing, the weighted cost per bottle is also increasing. Then, the ending balance of inventory would decrease, and cost of sales would increase. Consequently, the company's inventory turnover ratio would increase, and gross profit margin would decrease.

**3. (1.5 marks)**

Note: This is a special case of "Lower of Cost and Net Realizable Value" (LCNRV) where the net realizable value is zero.

Cost of Sales                      \$ 270

    Allowance for Excess and Obsolete Inventory                      \$ 270

*Directly crediting the "Inventory" account is allowed.*

**4. (2 marks)**

The cost of sales would decrease and the ending balance of inventory would increase, because the purchase price has been increasing

**Question 4 Long-Term Assets:****(14 marks, 30 minutes)****1. (1.5 marks)**

Cost of the land =  $(\$237,000^1 + \$3,000^2) \times \$100,000^3 / (\$100,000^3 + \$200,000^4) = \$80,000$

Note:

1. Purchase price of land with existing building
2. Legal fees for closing
3. Market value of the land
4. Market value of the building

**2. (2.5 marks)**

Cost of the building =  $[(\$237,000^1 + \$3,000^2) \times \$200,000^3 / (\$100,000^3 + \$200,000^4)] + \$49,000^5 = \$209,000$

Depreciation expense of 2011 =  $(\$209,000 - \$50,000^6) / 30^7 = \$5,300$

Note:

1. Purchase price of land with existing building
2. Legal fees for closing
3. Market value of the land
4. Market value of the building
5. Renovation costs for the building
6. Residual value of the building
7. Useful life of the building

**3. (5 marks)**

Cost of the equipment =  $\$50,000 + \$5,000 = \$55,000^1$

Depreciation expense of the equipment in 2011 =  $(\$55,000^1 - \$5,000^2) / 100,000^3 \times 20,000^4 = \$10,000^5$

Depreciation expense of the equipment in 2012 =  $(\$55,000^1 - \$10,000^5) / 3^6 \times 2 = \$30,000$

Note:

1. Cost of the equipment
2. Residual value of the equipment
3. # units the equipment is expected to handle during its life time
4. # units the equipment handled in 2011
5. Since 2011 is the first year operation of the equipment, depreciation expense of the equipment during 2011 equals the equipment's accumulated depreciation as at December 31, 2011.
6. The equipment's estimated remaining useful life as at January 1, 2012.

**4. (5 marks)**

Calculating depreciation expense of the equipment in 2013 using the double-declining method  
 $= (\$55,000^1 - \$10,000^2 - \$30,000^3) / 3^4 \times 2 = \$10,000^5$

This implies the carrying amount of the equipment would be \$5,000, which is lower than the estimated residual value of \$6,000. Therefore, the carrying amount of the equipment as at December 31, 2013 is \$6,000.

Cash	\$10,000	
Accumulated Depreciation	\$49,000	(\$55,000 <sup>1</sup> - \$6,000 <sup>6</sup> )
Equipment	\$55,000	
Gain	\$4,000	

Note:

1. Cost of the equipment
2. The equipment's accumulated depreciation as at December 31, 2011
3. Depreciation expense of the equipment during 2012
4. The equipment's estimated remaining useful life as at January 1, 2012.
5. Depreciation expense of the equipment during 2013
6. The carrying amount of the equipment as at December 31, 2013

### Question 5 *Liabilities:*

(22 marks; 40 minutes)

#### PART A

##### 1. (4 marks)

Bond Payable <sup>A</sup>	\$500,000	
Premium on bond payable <sup>B</sup>	\$35,883	
Cash <sup>C</sup>		\$510,000
Gain <sup>D</sup>		\$25,883

Note:

- A.  $\$1,500,000^1 \times 1/3 = \$500,000$
- B.  $(\$1,607,649^2 - \$1,500,000^1) \times 1/3 = \$107,649 \times 1/3 = \$35,883$
- C. Cash =  $\$500,000 \times 102\% = \$510,000$
- D. Gain on Redemption =  $\$500,000^A + \$35,883^B - \$510,000^C = \$25,883$ 
  1. Face value of the bond.
  2. The carrying amount of the bond as at December 31, 2011

##### 2. (5 marks)

Interest expense <sup>D</sup>	\$26,794
Amortization on bond premium <sup>F</sup>	\$3,206
Cash <sup>E</sup>	\$30,000

Note:

- D. Face value after redemption =  $\$1,500,000 - \$500,000$   
 $= \$1,000,000$  (see Note A in requirement 1)
- Balance of premium on bond payable after redemption  
 $= \$107,649 - \$35,883 = \$71,776$  (see Note B in requirement 1)

Carrying amount after redemption =  $\$1,000,000 + \$71,776 = \$1,071,776$   
Interest expense =  $\$1,071,776 \times 5\% \times 6/12 = \$26,794$   
E. Interest Paid in cash =  $\$1,000,000 \times 6\% \times 6/12 = \$30,000$   
F. Amortization =  $\$30,000 - \$26,794 = \$3,206$

**3. (2 marks)**

Since the interest expenses are recognized, profit before income tax would decrease. As a result, income tax expense is likely to decline, but the profit would also decrease.

**4. (2 marks)**

Patty's profit in 2011 would increase. For a bond issued at premium, the interest expense decreases after each interest payment. The bond was outstanding for the first year in 2011, so the interest expense recognized using the effective interest rate method would be higher than the interest expense recognized using the straight-line method.

**PART B**

**1. (3.5 marks)**

Sales Tax Payable	\$3,390 ( $\$22,600 \times 15\%$ )
Warranty Liabilities	\$452 ( $\$22,600 \times 2\%$ )
Note Payable	\$200,000
Interest payable	\$1,500 ( $\$200,000 \times 9\% \times 1/12$ )

**2. (5.5 marks)**

Transaction a

Increase in A/R would decrease cash flow in operating actives;

Decrease in inventories would increase cash flow in operating actives;

Increase in sales tax payable would increase cash flow in operating actives;

Increase in warranty liabilities would increase cash flow in operating actives.

Transaction b

Increase in interest payable would increase cash flow in operating actives.

Increase in note payable would increase cash flow in financing actives.

**Question 6 Statement of Cash Flows:****(15 marks; 40 minutes)**

ADAMANT INC.		
Statement of Cash Flows		
As at December 31, 2013		
<b>Operating Activities</b>		
Profit		\$ 55,500
Depreciation expense	\$ 19,000	
Impairment loss on goodwill	22,000	
Increase in trade receivable	(28,000)	
Increase in merchandise inventory	(14,000)	
Increase in trade payable	4,000	
Decrease in salaries payable	(400)	
Decrease in income tax payable	(6,000)	
Net cash provided by operating activities		52,100
<b>Investing activities</b>		
Purchase of equipment	\$ (8,000)	
Disposal of equipment	17,000 <sup>A</sup>	
Net cash provided by investing activities		9,000
<b>Financing activities</b>		
Issue of common shares	\$ 8,000	
Repayment of bank loan payable	(53,100) <sup>B</sup>	
Net cash used by financing activities		(45,100)
Net increase in cash		16,000
Beginning Cash, January 1		10,000
Ending Cash, December 31		<u>\$ 26,000</u>
Interest Paid	\$8,000 <sup>C</sup>	
Income Tax Paid	\$18,000 <sup>D</sup>	

**Note**A.  $\$24,000 - \$7,000 = \$17,000$ B.  $\$101,300 + \$20,000 - \$68,200 = \$53,100$ 

C. Since there is no balance for Interest Payable, interests are paid in cash right away.

D.  $\$8,000 + \$12,000 - \$2,000 = \$18,000$