

SUGGESTED SOLUTION, FINAL EXAMINATION (REGULAR)
FALL 2012

QUESTION 1 (21 marks; 1.5 marks each)

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

QUESTION 2 (15 marks)

Requirement 1 (6 marks)

Weighted-average unit cost, Oct 9

$$[\$1500 + (\$26 \times 120)] / (60 + 120) = \$25.67$$

Weighted-average unit cost, Oct 17

$$[(\$25.67 \times 80^*) + (\$27 \times 70)] / (80 + 70) = \$26.29$$

$$*(60 + 120 - 100) = 80$$

Ending Inventory in October 2012

$$\$26.29 \times 90^* + (\$28 \times 80) = \$4,606.10$$

$$*(80 + 70 - 60) = 90$$

Requirement 2 (4 marks)

Cash (or Trade Receivables)	\$2,400	
Sales Revenue		2,400
Cost of Goods Sold	\$1,560*	
Inventory		1,560

* All 60 units of October 22 sales came from October 9 purchases.

Requirement 3.a (4 marks)

Total bottles available for sale = $60+120+70+80 = 330$

Total cost for bottles available for sale = $\$1,500 + \$3,120 + \$1,890 + \$2,240 = \$8,750$

Average cost per bottle = $\$8,750 / 330 = \26.52

Ending inventory = $\$26.52 \times 170 = \$4,508.40$

Using the weighted average costing method, the ending inventory under a periodic inventory system ($\$4,508.40$) is lower than under a perpetual inventory system ($\$4,606.10$).

Requirement 3.b (1 mark)

Under a periodic inventory system, the journal entry for sales revenue will be recorded in the same way; however the amount of cost of goods sold will be recorded for the entire month on October 31.

QUESTION 3 (16 marks)**Requirement 1 (4 marks)**

July 1, 2002

PV of principal = $1,500,000 \times 0.6139$ (i=5, n=10) = 920,850

PV of interest = $90,000^* \times 7.7217$ (i=5, n=10) = 694,953

PV = 1,615,803

* $1,500,000 \times 12\% / 2 = 90,000$

Cash	1,615,803	
	Premium on bonds payable	115,803
	Bonds payable	1,500,000

Requirement 2 (7 marks)

July 1, 2003

Bond payable 600,000 (1,500,000 X 40%)

Premium on bond payable 38,769*

Cash 588,000 (600,000 X 98%)

Gain 50,769

*unamortized premium on Dec 31, 2012

$115,803 - [90,000 - (1,615,803 \times 5\%)] = 106,593$

unamortized premium on Jun 30, 2012

$106,593 - [90,000 - (1,606,593 \times 5\%)] = 96,923$

$96,923 \times 40\% = 38,769$

Requirement 3 (3 marks)

Operating Activities

Less: gain on bond retirement (50,769)

Financing Activities

Retirement of bonds payable (588,000)

Requirement 4 (2 marks)

Magana Corporations
Statement of Financial Position (partial)
As at June 30, 2003

Long-term liabilities:

Bonds Payable	\$900,000
Premium on bonds payable	<u>58,154</u>
Carrying amount of bonds payable	<u>958,154</u>

QUESTION 4 (15 marks)**Requirement 1 (4 marks)**

$$\text{Cost of land} = 840,000 \times [600,000 / (600,000 + 300,000)] + 4,000 = 564,000$$

$$\text{Cost of building} = 840,000 \times [300,000 / (600,000 + 300,000)] + 20,000 = 300,000$$

Requirement 2 (7 marks)Building, Double-declining Method

$$\text{Year 1 Depreciation Expense} = 300,000 \times 2 / 30 \times 4/12^* = 6,667$$

*Four months elapsed from September 1 to December 31, 2011.

$$\text{Year 2 Depreciation Expense} = (300,000 - 6,667) \times 2 / 30 = 19,556$$

Equipment, Straight-line Method

$$\text{Year 1 Depreciation Expense} = (105,000 - 5,000) / 10 \times 4/12^* = 3,333$$

$$\text{Year 2 Depreciation Expense} = 10,000$$

Requirement 3 (4 marks)

Accumulated Depreciation	102,000 (115,200– 13,200)	
Cash	18,000	
Equipment		115,200
Gain on sale of equipment		4,800 (18,000 -13,200)

QUESTION 5 (15 marks)

Requirement 1 (8 marks)

Return on Assets: $[\text{Profit} + \text{Interest Expense (net of tax)}] / \text{Average Total Assets}$

$$\text{BCE: } [2,592 + 674 \times (1 - 554 / 3,146)] / [(39,527 + 36,295) / 2] = 8.30\%$$

$$\text{Telus: } [1,038 + 510 \times (1 - 328 / 1,366)] / [(19,599 + 19,219) / 2] = 7.34\%$$

Quick Ratio:

$(\text{Cash and Cash Equivalent} + \text{Short-term Investment} + \text{Net Trade Receivables}) / \text{Current Liabilities}$

$$\text{BCE: } (779 + 1,896) / 5,953 = 0.45$$

$$\text{Telus: } (25 + 973) / 3,949 = 0.25$$

Times Interest Earned Ratio:

$(\text{Profit} + \text{Interest Expense} + \text{Income Tax Expense}) / \text{Interest Expense}$

$$\text{BCE: } (2,592 + 674 + 554) / 674 = 5.67$$

$$\text{Telus: } (1,038 + 510 + 328) / 510 = 3.68$$

According to the calculations, we can conclude that compared with Telus, BCE has (1) a higher return on assets, which suggests BCE utilizes its assets relatively more effectively; (2) a higher quick ratio, which suggests BCE has higher short-term liquidity (Telus's low quick ratio is unlikely to indicate a liquidity concern because of its large amount of cash flow from operating activities); and (3) a higher times interest earned ratio, which suggests BCE has a better margin of protection for its creditors. Overall, both BCE and Telus are profitable, liquid, and able to protect their creditors.

Requirement 2 (4 marks)

Quality of Earnings: $\text{Cash Flows from Operating Activities} / \text{Profit}$

$$\text{BCE: } 4,724 / 2,592 = 1.82$$

$$\text{Telus: } 2,546 / 1,038 = 2.45$$

Profit includes both cash and non-cash components. The quality of earnings ratio measures the portion of earnings that was generated in cash, so it indicates a company's ability to finance its operating and other cash needs from operating cash flows. Further, given a fixed amount of operating cash flows, different accounting procedures can result in different amounts of profit (for instance, different depreciation methods or estimates). Therefore, the quality of earnings ratio could assess a company's aggressiveness in its accounting policy as well.

Both BCE and Telus have a quality of earnings ratio higher than 1, which indicates high earnings quality. Moreover, although BCE has a higher return on assets than Telus, BCE's quality of earnings ratio is lower than Telus's.

Requirement 3 (1 mark)

The price/earnings ratio measures the relationship between the current market price per share and its earnings per share. Generally, a company that expects to increase its earnings in the future is worth more; therefore, a high price/earnings ratio could indicate higher future growth prospect.

Requirement 4 (2 marks)

Price/Earnings: Market Price per Share / Earnings per Share

Bell: $35.46 / (2,592 / 759) = 10.38$

Telus: $43.56 / (1,038 / 320) = 13.43$

Telus has a higher price/earnings ratio than BCE. Since the client prefers a security with a higher price/earnings ratio, Aaron should recommend Telus to this client.

QUESTION 6 (18 marks)

Requirement 1 (9 marks)

- a. Cash collected from customers
 $\$390,000 + \$14,000 - \$19,000 = \mathbf{\$385,000}$.
- b. Payments to suppliers of merchandise inventory
Purchases = $\$220,000 + \$6,000 - \$9,000 = \$217,000$.
Payments = $\$217,000 + \$36,000 - \$9,400 = \mathbf{\$243,600}$.
- c. Payments for operating expenses
 $\$60,000 - \$3,600 - \$2,000 + \$1,000 - \$3,000 = \mathbf{\$52,400}$
- d. Payments for interest
 $\$9,000 + \$3,000 - \$2,000 = \mathbf{\$10,000}$

Requirement 2 (8 marks)

Mortimer Limited
Statement of Cash Flows
For the Year ended December 31, 2012
(In dollar thousands)

Investing activities		
Construction of building extension	(18,000)	
Purchase of equipment	(12,000)	
Proceeds from sale of land (A)	35,000	
Proceeds from sale of equipment (B)	<u>2,500</u>	
Net cash from investing activities		7,500

A: $\$112,000 - \$84,000 + \$7,000 = \$35,000$.

B: Cost of equipment sold = $\$9,000 + \$12,000 - \$16,000 = \$5,000$.

Accumulated depreciation of equipment sold = $\$2,000 + \$2,000 - \$3,000 = \$1,000$.

Proceeds from sale of equipment = $\$4,000^* - \$1,500 = \$2,500$.

*Carrying amount (book value) of equipment sold = $\$5,000 - \$1,000 = \$4,000$.

Requirement 3 (1 mark)

No. When a provision is recognized, the estimated liability account increases, so do expenses; however, this transaction doesn't have an impact on operating cash flows.