

**Suggested Solution**  
**Final Examination**

Fall 2010

**QUESTION 1 (24 marks):**

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

**QUESTION 2 (18 marks):**

**Req. 1 (8 marks)**

The journal entry:

Machine A	20,400	
Machine B	31,100	
Machine C	13,000	
Cash		64,500

Allocation of purchase price plus transportation costs (57,000 + 3,000 = 60,000):

Machine	Appraised Value		Apportionment of Lump-Sum Cost	
	Amount	Ratio	Computations	Apportioned Cost
A	\$ 19,200	.30	\$60,000 x .3	18,000
B	32,000	.50	60,000 x .5	30,000
C	12,800	.20	60,000 x .2	12,000
Total	<u>64,000</u>	<u>1.00</u>		<u>\$60,000</u>

Cost of each machine:

	Machine			Total
	A	B	C	
Allocated cost (from above).....	\$18,000	\$30,000	\$12,000	\$60,000
Installation costs .....	400	600	300	1,300
Renovation costs.....	2,000	500	700	3,200
Total cost paid in cash.....	<u>\$20,400</u>	<u>\$31,100</u>	<u>\$13,000</u>	<u>\$64,500</u>

**Req. 2 (6 marks)**

The journal entry:

Amortization expense	15,100	
Accumulated amortization - Machine A		3,800
Accumulated amortization - Machine B		4,800
Accumulated amortization - Machine C		6,500

Computation of annual amortization for each machine:

Machine	Method	Computation
A	Straight-line	$(\$20,400 - \$1,400) \div 5 \text{ years} = \underline{\$3,800}$
B	Units-of-production	$(\$31,100 - \$1,100) \div 50,000 \text{ hours} = \$.60$ $\$.60 \times 8,000 \text{ hours} = \underline{\$4,800}$
C	Double declining balance	$\$13,000 \div 4 \text{ years} \times 2 = \underline{\$6,500}$

**Req.3 (4 marks)**

(a) The entry for amortization expense for January to June 2009:

Amortization expense .....	2,400	
Accumulated amortization .....		2,400
[( $\$76,200 - \$4,200$ ) $\div$ 15 years] $\times$ 6/12 = $\$2,400$		

(b) The entry to record disposal:

Cash	15,000	
Accumulated amortization	60,000 ( $57,600 + 2,400$ )	
Loss on disposal of equipment	1,200	
Equipment		76,200

**QUESTION 3 (18 marks):**

**Part A (6 marks)**

1. Cash	11,300	
Sales Revenue	10,000	
HST Payable	1,300	
Cost of goods sold	8,000	
Inventories		8,000
2. Long-term liability	50,000	
Current portion of long-term liability	50,000	
3. Warranty expense	6,000	
Estimated warranty liabilities		6,000
4. Estimated warranty liabilities	2,500	
Cash		1,500
Inventory-parts	1,000	
5. Property tax expense	4,000	
Property tax payable		4,000

**Part B (12 marks)**

1. July 1, 2010 (3 marks)

Cash	4,573,520*
Discounts on bonds payable	426,480
Bonds payable	5,000,000

$$\text{Issuance price} = (\$5,000,000 \times 0.7441) + (\$5,000,000 \times 4\% \times \frac{1}{2}) \times 8.5302 = \$4,573,520$$

2. (5 marks)

Carey Ltd.  
Partial Balance Sheet  
As of December 31, 2010

Current Liabilities

Interest payable	\$100,000	(\$5,000,000 * 4% * 1/2)
------------------	-----------	--------------------------

Long-term Liabilities

Bonds payable, 4%, due June 30, 2015	\$5,000,000
Less: Discount on bonds payable	<u>389,274*</u>
Book (carrying) value	\$4,610,726

\*Calculation:

$$\text{Interest expense} = \$4,573,520 \times 6\% \times \frac{1}{2} = \$137,206$$

$$\text{Unamortized discount} = \$426,480 - (\$137,206 - \$100,000) = \$389,274$$

Carey Ltd.  
Partial Income Statement  
For the Year Ended on December 31, 2010

Other revenues and expenses (Non-operating expenses)

Interest expense	\$ 137,206
------------------	------------

3. (4 marks)

January 1, 2011

Bonds payable	1,000,000
Loss on early redemption	97,855
Cash	1,020,000*
Discount on bonds payable	77,855**

$$\text{*Redemption price} = \$5,000,000 \times 1.02 \times 0.2 = \$1,020,000$$

$$\text{**Discount} = 0.2 \times \$389,274 = \$77,855$$

**QUESTION 4 (23 marks):**

**Req. 1 (5 marks)**

KITCHENWARE INC.  
Statement of Cash Flows  
For the Year Ended December 31, 2010

**Cash flows from operating activities:**

Net income .....	\$12,000
Add (deduct) items not affecting cash:	
Amortization expense .....	15,200
Loss on sale of furniture .....	1,200
Gain on sale of investment .....	(800)
Increase in trade accounts receivable .....	(45,700)
Decrease in inventories .....	20,000
Increase in trade payables .....	3,900
Net cash flow from operating activities .....	\$ 5,800

**Req. 2 (5 marks)**

a.

Trade accounts receivables, beginning	\$10,600	
+ Sales revenue	980,000	
– <u>Cash collections from customers</u>	( X )	[X = \$934,300]
= Trade accounts receivable, ending	\$ 56,300	

b. The computation of the cash paid to suppliers is a two-step process.

Inventories, beginning	\$ 30,000	
+ Merchandise purchases	X	[X = \$620,000]
– <u>Cost of sales</u>	(640,000)	
= Inventories, ending	\$ 10,000	

Trade accounts payable, beginning	\$ 13,100	
+ Merchandise purchases	620,000	
– <u>Cash payments to suppliers</u>	( Y )	[Y = \$616,100]
= Trade accounts payable, ending	\$ 17,000	

c. Loss on sale = Cash received – Book value of furniture sold  
– \$1,200 = X – (\$5,000 – \$3,200) → Cash received = \$600

**Req. 3 (5 marks)****Cash flows from investing activities:**

Sale of furniture (amount determined in req. 2 above)	\$ 600	
Purchase of furniture (note 1)	(38,000)	
Sale of investments (\$1,000 change in balance + \$800 gain)	<u>1,800</u>	
Net cash flow used for investing activities		\$(35,600)

Note 1:

Cost of furniture, January 1, 2011	\$26,000
+ Purchases during the year	X
– Cost of furniture disposed of	<u>(5,000)</u>
= Cost of furniture, December 31, 2011	<u>\$59,000</u>

Purchases (X) = \$38,000

**Req. 4 (5 marks)**

a.

$$\text{Quality of income ratio} = \frac{\text{Cash flow from operations}}{\text{Net income}} = \frac{\$5,800}{\$12,000} = 0.48$$

The quality of income ratio measures the portion of income that was generated in cash. This ratio helps establish whether there are significant differences between net income and operating cash flows. In this case, the large increase in Trade accounts receivable, which reflects sales on account, reduced the amount of cash from operations. (1 mark)

$$\begin{aligned} \text{b. Free cash flow} &= \text{Cash flow from operations} - \text{Dividends paid} - \text{Capital expenditures} \\ &= \$5,800 - (\$18,000 + 600)^* - \$38,000 = -\$50,200. \end{aligned}$$

\* Beginning RE + Net income – Dividends Declared = Ending RE

$$\$25,300 + 12,000 - X = 19,300 \rightarrow X = \$18,000$$

The decrease in Dividends Payable should be added to the Dividends declared to get the amount of dividends paid.

Free cash flow represents the amount of cash that is available for additional capital expenditures, investments in other companies, and mergers and acquisitions, without the need for external financing. In this case, the operating activities did not generate sufficient cash to cover dividends and capital expenditures. (1 mark)

**Req. 5 (3 marks)**

As a professional accountant, I need to ensure that the proposed change is justified based on the available evidence. It should be consistent with GAAP. The proposed change would be acceptable if the original estimate of the useful life of these assets was understated or if regular maintenance or improvements increased the assets' useful life. However, if the proposed change is to improve the company's financial performance without valid justification, I would point out to Ms Wong that such a change is not appropriate. It should be noted that the proposed change would increase income but not affect cash flow.

**QUESTION 5 (17 marks):****Req. 1 (14 marks)**

a. Quick ratio:	$\frac{\$20 + 1 + 116}{\$141}$	= 0.97	$\frac{\$20 + 5 + 80.5}{\$138.5}$	= 0.76
b. Inventory turnover:	$\frac{\$201}{(\$149 + \$137)/2}$	= 1.41	$\frac{\$155}{(\$137 + \$86)/2}$	= 1.39
c. Accounts receivable turnover:	$\frac{\$351.5}{(\$116 + \$80.5)/2}$	= 3.58	$\frac{\$310}{(\$80.5 + \$62.5)/2}$	= 4.34
d. Times-interest-earned ratio:	$\frac{\$85.5}{\$26}$	= 3.29	$\frac{\$84}{\$20}$	= 4.20
f. Return on equity:	$\frac{\$40.5}{(\$191 + \$135.5)/2}$	= 24.8%	$\frac{\$41.5}{(\$135.5 + \$109)/2}$	= 33.9%
h. Price/earnings ratio:	$\frac{\$19.00^*}{\$2.70^*}$	= 7.04	$\frac{\$31.00^*}{\$3.46^*}$	= 8.96
i. Cash coverage:	$\frac{\$78}{26}$	= 3*	$\frac{\$80}{20}$	= 4*

\* Not in thousands.

**Req. 2 (3 marks)***Decisions:*

- The company's ability to pay its debts deteriorated during 2010, as shown by decreases in the receivable turnover, the times-interest-earned ratio and cash coverage ratio. Of the first four ratios computed, the quick ratio improved and the inventory turnover improved slightly, so the ability to sell inventory remained steady.
- The common shares' attractiveness dropped during 2010, as shown by the decrease in the market price of the common shares. This decrease is consistent with the decreases in return on assets, return on equity, earnings per share, and the price/earnings ratio.