

Suggested Solution
Mid-term Examination
Fall 2011

Question 1 (21 marks) *Multiple-choice* (1.5 marks per correct answer)

1. C Increase in A = Decrease in L + Increase in SE → Increase in SE = \$60,500 + \$42,000
2. A
3. D
4. A
5. A
6. C
7. B
8. C
9. B
10. A
11. C $GP\% = (Qing, \$13,000/\$22,300 = 0.58)$; $(Cyros, \$13,200/\$18,800 = 0.70)$
12. A
13. A
14. B

Question 2 (16 marks)**Req. 1 (11.5 marks)**

a.	Computer equipment	8,400	
	Cash		2,000
	Note payable		6,400
b.	Prepaid insurance	12,000	
	Cash		12,000
c.	Office supplies	3,800	
	Accounts payable		3,800
d.	Membership expense [\$720 / 12]	60	
	Accounts payable		60
e.	Trade receivables	6,000	
	Service revenue		6,000
f. (Jan. 31)	Depreciation expense	350	
	Accumulated depreciation – Computer equipment		350
g. (Jan. 31)	Interest expense [\$600 / 12]	50	
	Interest payable		50
h. (Jan. 31)	Insurance expense [\$12,000 / 12]	1,000	
	Prepaid insurance		1,000
i. (Jan. 31)	Office supplies expense [\$3,800 – 500]	3,300	
	Office supplies		3,300

Req. 2 (4.5 marks)

<u>Transaction</u>	<u>Effect on Profit</u>	<u>Effect on Total Assets</u>
a.	0	+6,400
b.	0	0
c.	0	+3,800
d.	– 60	0
e.	+ 6,000	+6,000
f.	– 350	– 350
g.	– 50	0
h.	–1,000	–1,000
i.	–3,300	–3,300

Question 3 (28 marks)Req. 1 (10 marks) Adjusting journal entries, December 31, 2010

a)	Wages expense	4,000	
	Wages payable		4,000
b)	Interest receivable	200	
	Interest income		200
	(\$12,000 x 5% x 4/12 = \$200)		
c)	Rent expense	3,500	
	Prepaid rent		3,500
	[((\$8,400 / 12) x 5 = \$3,500)]		
d)	Depreciation expense	1,500	
	Accumulated depreciation - equipment		1,500
	[((\$30,000 – 0) / 20 years = \$1,500)]		
e)	Retained earnings, or "Dividends"	7,500	
	Dividend payable		7,500
	(15,000 x \$.50 = \$7,500)		
f)	Bad debts expense	300	
	Allowance for doubtful accounts		300
	(\$1,200 - \$900 = \$300)		
g)	Income tax expense	2,520	
	Prepaid income taxes		520
	Income taxes payable		2,000
	\$12,600 * x 20% = \$2,520		

* Profit before income taxes = \$12,600 (see below).

Req. 2 (8 marks)

LTU, Inc.
Income Statement
For the Year Ended December 31, 2010

Sales	\$150,500
Less: sales returns and allowance	(<u>2,200</u>)
Net sales	148,300
Cost of goods sold	<u>64,500</u>
Gross profit	83,800

Operating expenses:	
Wages expense [\$55,900 + \$4,000]	59,900
Rent expense [\$5,500 + \$3,500]	9,000
Depreciation expense	1,500
Bad debt expense	300
Miscellaneous expenses	<u>700</u>
Total operating expenses	<u>71,400</u>

Operating profit	12,400
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Other income:	
Interest income	<u>200</u>
Profit before income taxes	12,600
Income tax expense [\$12,600 x 20%]	<u>2,520</u>
Profit for the year	<u>\$ 10,080</u>

Earnings per share [\$10,080 / 15,000]	\$ 0.67
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Req. 3 (5 marks)

LTU, Inc.
Statement of Financial Position (Partial)
As at December 31, 2010

Assets**Current Assets**

Cash	\$ 5,300
Trade receivables, net [\$50,000 - \$1,200]	48,800
Merchandise inventory	8,000
Note receivable	12,000
Interest receivable	200
Prepaid rent [\$8,400 - \$3,500]	<u>4,900</u>
Total Current Assets	79,200

Long-term Assets

Equipment	30,000
Less: Accumulated depreciation	<u>6,000*</u> <u>24,000</u>
Total Assets	<u>\$103,200</u>

* [\$4,500 + \$1,500]

Req. 4 (1 mark)

Approximate remaining life of equipment as at December 31, 2010 (see above for figures):

$$\$24,000 / \$1,500 = 16 \text{ years}$$

Alternatively, some students may calculate the number of years of equipment use (\$6,000/\$1,500 = 4 years) and deduct that from the original useful life of 20 years.

Req. 5 (4 marks)

$$\text{Net profit margin ratio} = \text{Profit} / \text{Net sales} = \$10,080 / \$148,300 = 6.8\%$$

This ratio measures how much profit has been earned from every sales dollar generated during the period. It is a “bottom line” measure of profitability.

$$\begin{aligned} \text{Total asset turnover ratio} &= \text{Net sales} / \text{Average total assets} \\ &= \$148,300 / [(\$100,000 + \$103,200) / 2] = 1.46 \end{aligned}$$

This ratio measures the amount of sales generated per dollar of assets. It reflects management’s effectiveness in generating sales from assets employed during the period.

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

Nov 5.	Cash	145,500	
	Sales discounts [\$150,000 x 3%]	4,500	
	Trade receivables		150,000
Nov 15.	Cash	100,000	
	Sales returns and allowances	20,000	
	Trade receivables		120,000
	OR		
	Sales returns and allowances	20,000	
	Trade receivables		20,000
	Cash	100,000	
	Trade receivables		100,000
Dec 5.	Allowance for doubtful accounts	12,000	
	Trade receivables		12,000
Dec 30.	Trade receivables	3,000	
	Allowance for doubtful accounts		3,000
	Cash	3,000	
	Trade receivables		3,000

Reg. 2 (6 marks):

Sept. 30	Oct. 30	Nov. 1	Nov. 5	Nov. 7	Nov. 15	Dec. 1	Dec. 5	Dec. 30
____	____	____	____	____	____	____	____	____
\$60,000	\$150,000	\$120,000	(\$150,000)	\$100,000	(\$20,000)	(\$80,000)	(\$12,000)	\$3,000
					(\$100,000)			(\$3,000)
Balance	Bianca	Anthony	Bianca	Cheng	Anthony	Cheng	Write-off	Recovery

Age Group	Amount Receivable	Estimated Percent Uncollectible	Estimated Amount Uncollectible
Not yet due	\$0	5%	\$ 0
1-30 days past due [\$100,000 - \$80,000]	20,000	10%	2,000
31-60 days past due	0	15%	0
More than 60 days past due [\$60,000 - \$12,000]	48,000	20%	9,600
Total	<u>\$68,000</u>		<u>\$11,600</u>

Ending balance of Allowance for Doubtful Accounts, Dec. 31, 2011 = \$11,600.

Bad debt expense for the year 2011 = \$11,600 – (15,000 – 12,000 + 3,000) = \$5,600.

Adjusting entry:	Bad debt expense	5,600
	Allowance for doubtful accounts	5,600

Req. 3 (3 marks):

Net sales = \$600,000 + (150,000 + 120,000 + 100,000) – 4,500 – 20,000 = \$945,500

Bad debt expense = \$945,500 x 1% = \$9,455

Req. 4 (3 marks):

Receivables turnover ratio = Net credit sales / Average net trade receivables
 = \$945,500 / [(\$62,000 + (\$68,000 - \$11,600))/2]
 = \$945,500 / \$59,200 = 15.97

Average collection period = 365 / Receivables turnover ratio = 365 / 15.97 = 22.9 days

Average collection period reflects the average time it takes a customer to pay the amount due. In this case, the calculation suggests that it takes Pete's customers on average 22.9 days to pay the amount due.

Req. 5 (2 marks):

Pete's customers pay, on average, after 23 days from purchase, which is within the credit of 30 days. They appear to be paying amounts due faster than Hossiers' customers, but slower than Spartans' customers.

Question 5 (15 marks)Reg. 1 (4 marks)

Cost of ending inventory = 200 units x \$12 = \$2,400

Cost of goods sold = 100 units x \$7 + 700 units x \$10 = \$7,700

Gross profit = Sales – COGS = [(400 x \$15) + (400 x \$20)] – \$7,700 = \$6,300

Reg. 2 (3 marks)

Jan. 18:	Purchases	(700 x \$10)	7,000	
	Trade payables			7,000
Jan. 30:	Trade receivables	(400 x \$15)	6,000	
	Sales Revenue		6,000	

Reg. 3 (2 marks)

March 31:	Cost of goods sold	[(\$12 – \$11) x 200]	200	
	Allowance for excess and obsolete inventory			200
	(or Inventory)			

Reg. 4 (2 marks)

Using the weighted-average cost method, the company would report higher cost of sales because the costs of all the inventory units are taken into account in calculating the average cost of units sold compared to FIFO which does not include the higher cost of the units purchased last . As a result, gross profit would be lower under the weighted-average cost method compared to the FIFO method.

Reg. 5 (4 marks)

Weighted-average cost 1 = [(100 x \$7) + (700 x \$10)] / (100 + 700) = \$9.63

Number of units remaining after the sale on January 30 = 800 – 400 = 400 units

Weighted-average cost 2 = [(400 x \$9.63) + (200 x \$12)] / (400 + 200) = \$10.42

Cost of sale on March 24 = 400 x \$10.42 = \$4,168