

Solution

Problem 1 Solution:

a) Journal and Adjusting Entries (18 marks):

- 1) December 4:
- | | | |
|---------------|------------------------------------|--------|
| Dr. Inventory | 25,500 | |
| | Cr. Trades/Accounts payable-Delphi | 25,000 |
| | Cr. Cash | 500 |
- 2) December 8:
- | | | |
|---------------------------------------|-------------------|---------|
| Dr. Trades/Accounts Receivable-Paquin | 135,000 | |
| | Cr. Sales revenue | 135,000 |
| Dr. Cost of sales | 33,750 | |
| | Cr. Inventory | 33,750 |
| Dr. Shipping/Delivery Expense | 1,500 | |
| | Cr. Cash | 1,500 |
- Sale - COS = Gross profit; so COS = Sale - gross profit*
 $COS = 135,000 - (135,000 \times 0.75) = 135,000 - 101,250 = 33,750$
- 3) December 12:
- | | | |
|--------------------|---------------------------------------|---------|
| Dr. Cash | 132,300 | |
| Dr. Sales Discount | 2,700 | |
| | Cr. Trades/Accounts Receivable-Paquin | 135,000 |
- 4) December 13:
- | | | |
|------------------------------------|---------------|--------|
| Dr. Trades/Accounts payable-Delphi | 25,000 | |
| | Cr. Cash | 24,500 |
| | Cr. Inventory | 500 |
- 5) Dr. Depreciation Expense 10,000
- | | | |
|--|-------------------------------|--------|
| | Cr. Accumulated Depreciation— | |
| | Buildings | 10,000 |
- $(\$20,000 - 10,000 = 10,000)$
- *10,000 was already recorded in the trial balance as a depreciation expense for buildings*
- 6) Dr. Depreciation Expense 9,000
- | | | |
|--|-------------------------------|-------|
| | Cr. Accumulated Depreciation— | |
| | Equipment | 9,000 |
- $(\$18,000 - 9,000 = 9,000)$
- *9,000 was already recorded in the trial balance as a depreciation expense for equipment*
- 7) Dr. Insurance Expense 5,300
- | | | |
|--|-----------------------|-------|
| | Cr. Prepaid Insurance | 5,300 |
|--|-----------------------|-------|

Solution

- 8) Dr. Rent Receivable 4,000
Cr. Rent Revenue 4,000
(1/11 X \$44,000= \$4,000 rent per month)
- 9) Dr. Bad Debt Expense 6,480
Cr. Allowance for Doubtful Accounts 6,480
(8% X \$56,000 = \$4,480 Plus existing balance of \$2,000= \$6,480)
- 10) Dr. Salaries Expense 9,600
Cr. Salaries Payable 9,600
- 11) Dr. Sales Revenue 9,900
Cr. Unearned Revenue 9,900
- 12) Dr. Income tax expense 102,193
Cr. Income tax payable 102,193
(Tax = 25% x earnings before tax= 25% x 408,770 = 102,193)
- 13) Dr. Declared dividends 100,000
Cr. Dividends Payable 100,000
- 14) No Journal Entry
- 15) No Journal Entry

Solution

b) **Statement of Earnings (11.5 marks):**

MGC INC.

Statement of Earnings

For the year ended December 31, 2016

Revenues	
Sales revenue	\$ 808,100
Less: Sales Discount	\$ 2,700
Net Sales	\$ 805,400
Cost of sales	201,750
Gross Profit	<u>603,650</u>
Operating Expenses	
Utilities expense	\$ 56,000
Salaries expense	99,600
Depreciation Expense	38,000
Insurance Expense	5,300
Shipping Expense	1,500
Bad debt expense	6,480
Total Operating Expenses	<u>206,880</u>
Earnings From operations	396,770
Non-operating Activities	
Rent revenue	48,000
Interest expense	<u>(36,000)</u>
Total Non-operating Activities	<u>12,000</u>
Earnings Before Income Tax Expense	408,770
Income Tax Expense	<u>102,193</u>
Net Earnings	<u><u>\$ 306,578</u></u>

Earnings Per Share \$ 18.03

EPS = Net earnings / Average common shares outstanding

EPS = 306,578 / ([14,000 + 20,000] / 2) = 306,578 / 17,000 = 18.03

Solution

c) **Statement of Financial Position (17.5 marks):**

MGC INC.		
Statement of Financial Position		
As at December 31, 2016		
Assets		
Current Assets		
Cash		\$220,800
Trade Receivables	\$56,000	
Less: Allowance for doubtful accounts	<u>4,480</u>	51,520
Rent Receivable		4,000
Prepaid Insurance		6,700
Inventory		<u>111,250</u>
Total Current Assets		394,270
Non-Current Assets		
Equipment	300,000	
Less: Accumulated Depreciation- Equipment	<u>138,000</u>	162,000
Buildings	700,000	
Less: Accumulated Depreciation- Buildings	<u>196,000</u>	504,000
Land		<u>750,000</u>
Total Non-Current Assets		1,416,000
Total Assets		<u>1,810,270</u>
Liabilities and Shareholders' Equity		
Liabilities		
Current Liabilities		
Salaries payable		\$ 9,600
Unearned revenue		9,900
Income tax payable		102,193
Dividends Payable		<u>100,000</u>
Total Liabilities		221,693
Non-Current Liabilities		
Note Payable (due in 5 years, 7.2% interest)		<u>500,000</u>
Total Liabilities		721,693
Shareholders' Equity		
Common shares (20,000 shares outstanding)		730,000

Solution

Retained earnings	<u>358,578</u>
Total Shareholders' Equity	<u>1,088,578</u>
Total Liabilities and Shareholders' Equity	<u><u>\$1,810,270</u></u>

$$\begin{aligned}\text{Retained Earnings} &= \text{net earnings} + \text{beginning retained earnings} - \text{dividends} \\ &= 306,578 + 152,000 - 100,000 = 358,578\end{aligned}$$

d) Ratios: (5 marks)

$$\begin{aligned}\text{Return on Assets} &= (\text{Net earnings} + [\text{interest expense, net of tax}]) / \text{Average Total Assets} \\ &= \frac{[306,578 + (36,000 \times [1-0.25])]}{[(1,810,270 + 716,000) / 2]} \\ &= 333,577.5 / 1,263,135 = 0.2641 = 0.26\end{aligned}$$

For every \$1 invested by shareholders and creditors, MGC generates \$0.26 in return to those investors.

$$\begin{aligned}\text{Return on Equity} &= \text{Net earnings} / \text{Average shareholders' equity} \\ &= \frac{306,578}{[(1,088,578 + 716,000) / 2]} \\ &= 306,578 / 902,288.75 = 0.3398 = 0.34\end{aligned}$$

For every \$1 invested by shareholders, MGC generates \$0.34 as a return.

$$\begin{aligned}\text{Total Asset Turnover} &= \text{Net Sales} / \text{Average total Assets} \\ &= \frac{805,400}{[(1,810,270 + 716,000) / 2]} \\ &= 805,400 / 1,263,135 = 0.6376 = 0.64\end{aligned}$$

For every dollar invested in total assets, MGC is able to generate \$0.64 in net sales.

e) (0.5 mark)

The change in Total Asset Turnover from 0.68 to 0.64 could be due to:

- The investment in fixed assets (or long term) that MGC undertook in 2016.
- MGC's expansion (through asset acquisition) could translate to higher sales in the future.
- The decline in total asset turnover is caused by MGC's growth.

Solution

Problem 2: Solution:

(a) Journal Entries (19 marks)

Sept 1	Cash	32,000	
	Contributed Capital		32,000
2	NO ENTRY because there is no transaction		
3	Equipment	12,500	
	Accounts Payable – MIGK, Ltd.		12,500
3	Prepaid Rent	1,300	
	Cash		1,300
4	Inventory	10,000	
	Accounts (or Trade) Payable – KM Corp.		10,000
5	Supplies	900	
	Cash		900
10	Accounts (or Trade) Payable – KM Corp.	10,000	
	Cash		9,800
	Inventory		200
11	Cash	6,000	
	Accounts (or Trade) Receivable – TBC, Inc.	2,000	
	Sales Revenue		8,000
	Cost of Sales (or Cost of Goods Sold)	3,700	
	Inventory		3,700
13	Cash	1,980	
	Sales Discounts	20	
	Accounts (or Trade) Receivable – TBC, Inc.		2,000
14	Accounts (or Trade) Receivable – MTL Corp.	8,800	
	Sales revenue		8,800
	Cost of Sales (or Cost of Goods Sold)	3,400	
	Inventory		3,400

Solution

17	Accounts (or Trade) Payable – MIGK, Ltd.	12,500	
	Cash		12,500
18	Sales Returns and Allowances	4,400	
	Accounts (or Trade) Receivable – MTL Corp.		4,400
	Inventory	1,700	
	Cost of Sales (or Cost of Goods Sold)		1,700
19	Miscellaneous Expenses	200	
	Accrued Expenses Payable (or Accounts Payable)		200
30	Salaries (or Wages) Expense	3,400	
	Cash		3,400

(b) Adjusting Entries (6 marks)

Utilities Expense	70	
Utilities Payable		70
Rent Expense [$\$1,300 / 2$]	650	
Prepaid Rent		650
Depreciation Expense	200	
Accumulated Depreciation		200
Supplies Expense [$\$900 - \570]	330	
Supplies		330
Income Tax Expense	426	
Income Taxes Payable		426

Solution

(c) (10.5 marks)

DND Corporation
Statement of Earnings
For the Month Ended September 30, 2016

Revenues	
Sales	\$16,800
Less: Sales discounts	20
Less: Sales returns and allowances	4,400
Net Sales	12,380
Cost of Sales (or Cost of Goods Sold)	5,400
Gross Profit	6,980
Operating Expenses:	
Supplies Expense	330
Salaries (or Wages) Expense	3,400
Depreciation Expense	200
Rent Expense	650
Miscellaneous Expenses	200
Utilities Expense	70
Total operating Expenses	4,850
Earnings before income taxes	2,130
Income Tax Expense	426
Net Earnings (or net income, net profit)	1,704
Earnings Per Share	\$1.70

EPS = \$1,704 / 10,000

Solution

(d) (6.5 marks)

Liabilities and Shareholders' Equity

Current Liabilities

Utilities Payable	70
Accrued Expenses (or Accounts) Payable	200
Income Taxes Payable	426
Total Liabilities	<u>696</u>

Shareholders' Equity

Contributed Capital	32,000
Retained Earnings*	1,704
Total Shareholders' Equity	<u>33,704</u>
Total Liabilities and Shareholders' Equity	<u><u>\$34,400</u></u>

* Retained Earnings = beginning retained earnings + net earnings – dividends
= \$0 + 1,704 – 0 = \$1,704

(e) Closing the books: (4 marks)

The purpose of “closing the books” at the end of the accounting period is to:

- Transfer the balances in the temporary accounts to a permanent account, i.e., update Retained earnings to include current net earnings/loss.
- This also creates a zero balance in the temporary accounts for accumulation of the financial effects of transactions in the next accounting period.

The accounts that should be closed are:

Sales	Sales Discounts	Sales Returns and Allowances
Cost of Sales	Supplies Expense	Salaries Expense
Depreciation Expense	Rent expense	Miscellaneous Expenses
Utilities Expenses	Income Tax Expense	

Solution

(f) Error in journal entry: (2 marks)

Net earnings will increase because the expenses decreased by \$100 before considering the change in income tax expense.

$$\begin{aligned}\text{Revised net earnings} &= (\text{Earnings before taxes} + 100) - \text{Income tax expense} \\ &= (\$2,130 + 100) - 2,230 \times .20 \\ &= \underline{\$1,784}\end{aligned}$$

Alternative Calculation:

$$\text{Revised net earnings} = \$1,704 + \$100 \times (1 - 0.20) = \$1,784$$

(g) Ratios (5 marks)

$$\text{Gross Profit Percentage} = \text{Gross profit} / \text{Net Sales} = \$6,980 / \$12,380 = 0.5638 \text{ (or 56.38\%)}$$

This ratio indicates:

- How much gross profit is generated from each sales dollar.
- That the cost of sales is less than half of the net sales (44%).
- That the company is able to sell its products for a high mark-up and possibly has a good deal with its suppliers.

$$\text{Net profit margin} = \text{Net earnings} / \text{Net sales} = \$1,704 / \$12,380 = 0.1376 \text{ (or 13.76\%)}$$

This ratio indicates:

- How much each sales dollar generated in net earnings during the period.
- That the company generated net earnings that are 13.76% of net sales.

$$\text{Return on Assets} = (\text{Net earnings} + \text{interest expense, net of tax}) / \text{Average total assets} \\ (\$1,704 + 0) / [(\$32,000 + \$34,400) / 2] = 0.051 \text{ (or 5.1\%)}$$

This ratio indicates:

- How effective the company is at utilizing its assets to generate earnings to shareholders and creditors.
- For every dollar of assets, the company generated about 5 cents in net earnings.

Solution

Problem 3: Solution:

a) JOURNAL ENTRIES (21 Marks):

Dr. Cash	90,000	
Cr. Contributed Capital		90,000
Dr. Cash	10,000	
Cr. Bank Loan		10,000
1) Dr. Prepaid Rent	6,000	
Cr. Cash		6,000
2) Dr. Office Equipment	5,000	
Cr. Cash		5,000
3) Dr. Inventory (Personal Comp)	75,000	
Cr. Cash		75,000
	<i>(Calculation: $50 \times 1,500 = 75,000$)</i>	
4) Dr. Inventory (Printers)	22,500	
Cr. Accounts/Trade Payable		22,500
	<i>(Calculation: $50 \times 450 = 22,500$)</i>	
5) Dr. Accounts Receivable (University)	102,000	
Cr. Sales Revenue		102,000
	<i>(Calculation: $40 \times 2,550 = 102,000$)</i>	
Dr. COGS	60,000	
Cr. Inventory (Personal Computers)		60,000
	<i>(Calculation: $40 \times 1,500 = 60,000$)</i>	
6) Dr. Accounts Receivable (Printing)	29,250	
Cr. Sales Revenue		29,250
	<i>(Calculation: $39 \times 750 = 29,250$)</i>	
Dr. COGS	17,550	
Cr. Inventory (Printers)		17,550
	<i>(Calculation: $39 \times 450 = 17,550$)</i>	
7) Dr. Cash	99,960	
Dr. Sales Discount*	2,040	
Cr. Accounts Receivable (local university)		102,000

Solution

(*Calculation: $102,000 \times 0.02 = 2,040$)

8) Dr. Accounts Payable	22,500
Cr. Cash	22,050
Cr. Printer Inventory	450
9) Dr. Cash	50,000
Cr. Contributed Capital	50,000
<i>(Calculation: $50 \times 1,000 = 50,000$)</i>	
10) Dr. Salaries Expense	12,600
Cr. Salaries Payable	12,600
Dr. Salaries Payable	9,600
Cr. Cash	9,600
11) Dr. Cash	9,250
Cr. Accounts Receivable	9,250
<i>(Calculation: $29,250 - 20,000 = 9,250$)</i>	
12) Dr. Other Operating Expenses	8,400
Cr. Cash	8,400
13) Dr. Depreciation Expense	1,500
Cr. Accumulated Depreciation	1,500
14) Dr. Declared Dividends	2,000
Cr. Dividends Payable	2,000

Solution

b) ADJUSTING ENTRIES: (5 Marks)

Dr. Rent Expense	2,000	
Cr. Prepaid Rent		2,000
Dr. Bad debt expense	2,000	
Cr. Allowance for Doubtful Accounts		2,000
<i>(Calculation: 20,000 x 10% = \$2,000)</i>		
Dr. Interest Expense	25	
Cr. Interest Payable		25
Dr. Tax Expense	7,540.50	
Cr. Tax Payable		7,540.50
<i>(Calculation: 25,135 x 30% = \$7,540.50)</i>		
<i>(\$25,135 is from calculating the income before taxes, check (c) below)</i>		

c) Statement of Earnings: (10 marks)

ABC Company

Statement of Earnings (or Income Statement)

For the Month (or Period) Ended 31 January 2015

Sales Revenue (or Revenue; or Sales)		\$131,250
Less: Sales Discount		2,040
Net Revenue		129,210
Cost of Sales (or Cost of Goods Sold)		77,550
Gross Profit		51,660
Operating Expenses		
Salaries Expense	12,600	
Other Operating Expenses	8,400	
Depreciation Expense	1,500	
Rent Expense	2,000	
Bad Debt Expense	2,000	
<i>Total Operating Expenses</i>		26,500
Earnings from Operations		25,160
Non-Operating Expenses		
Interest Expense		25
Earnings before taxes		25,135.00
Income Tax Expense (30%)		7,540.50
Net Earnings (or Net Income)		\$17,594.50
Earnings per share		\$7.65

Solution

[Calculation of EPS = \$17,594.50 / ((1800 + 2800)/2)]

d) Statement of Financial Position: (16 Marks)

ABC Company

Statement of Financial Position (or Balance Sheet)

As at 31 January 2015

Assets		
Current Assets		
Cash		\$133,160
Accounts Receivable	20,000	
Less: Allowance for doubtful accounts	<u>2,000</u>	
Net Accounts Receivable		18,000
Prepaid Rent		4,000
Inventory (Printers)		4,500
Inventory (Computers)		<u>15,000</u>
Total Current Assets		174,660
Non-Current (or Long-term) Assets		
Office Equipment	5,000	
Less: Accumulated Depreciation	<u>1,500</u>	
Net Office Equipment		<u>3,500</u>
Total Assets		<u><u>178,160</u></u>
Liabilities and Shareholders' Equity		
Current Liabilities		
Salaries Payable		3,000
Interest Payable		25
Dividends Payable		2,000
Income Tax Payable		<u>7,540.50</u>
Total Current Liabilities		12,565.50
Non-Current (or Long-term) Liabilities		
Bank Loan		<u>10,000</u>
Total Liabilities		22,565.50
Shareholders' Equity		
Common Shares (or Contributed Capital)	140,000	
Retained Earnings	<u>15,594.50</u>	
Total Shareholders' Equity		<u>155,594.50</u>
Total Liabilities and Shareholders' Equity		<u><u>178,160</u></u>

[Calculation of Retained Earnings: Net Income - Declared Dividends]

[Calculation of Retained Earnings = 17,594.50 – 2,000 = 15,594.50]

Solution

e) **Closing Entries: (4.5 marks):**

Dr. Sales Revenue	131,250	
Cr. Income Summary		131,250
Dr. Income Summary	113,655.5	
Cr. Sales Discount		2,040
Cr. Cost of Sales		77,550
Cr. Other Operating Expenses		8,400
Cr. Salaries Expense		12,600
Cr. Depreciation Expense		1,500
Cr. Rent Expense		2,000
Cr. Interest Expense		25
Cr. Bad Debt Expense		2,000
Cr. Income Tax Expense		7,540.5

[Balance in Income Summary = a Credit balance of \$17,594.50]

Dr. Income Summary	17,594.5	
Cr. Retained Earnings		17,594.5
Dr. Retained Earnings	2,000	
Cr. Declared Dividends		2,000

f) **Ratio Analyses: 8 Marks**

$$\begin{aligned}\text{Current ratio} &= \text{Current Assets} / \text{Current Liabilities} \\ &= 174,660 / 12,565.50 = 13.90\end{aligned}$$

- The ratio shows that the company is liquid.
- Its current assets are 13.9 times the current liabilities.
- ABC can cover its current obligations through its current assets.
- The ratio seems quite high (due to cash), perhaps ABC could use its current assets in a more efficient manner.

$$\begin{aligned}\text{Net Profit Margin} &= \text{Net Earnings} / \text{Net Sales} \\ &= 17,594.50 / 129,210 = 0.1362 = 13.62\%\end{aligned}$$

- This shows that net earnings is only 13.62% of net sales.
- This tells us that expenses for ABC might be too high.
- Perhaps ABC should check if it could be more efficient with its expenses or Cost of sales; it could also be due to the industry that ABC is in.

Solution

$$\begin{aligned}\text{Return on Equity} &= \text{Net Earnings} / \text{Average Shareholders' Equity} \\ &= 17,594.50 / ((90,000 + 155,594.50)/2) = 0.1433 = 14.33\%\end{aligned}$$

-This ratio shows that for every dollar invested by shareholders, the return is 11.31 cents (or 11.31%).

-While this does not seem high it could be normal for the industry that ABC is in.

Comparing the 3 ratios with ABC's competitors and the industry average would provide us with a better picture of how ABC is doing.