NATIONAL UNIVERSITY OF SINGAPORE

EC2204: Financial Accounting for Economists

Semester 1, AY2019/2020

Time allowed: 2 Hours

Suggested Solutions

Question 1:

The management team of Strawberry Shortcake Limited is preparing its annual financial statements. The statements are complete except for the statement of cash flows. The completed comparative balance sheets and income statement are as follows:

Balance Sheet on the following dates:

	30 June 2019	30 June 2018
Assets:		
Cash	$ 50,000	$ 72,000
Accounts Receivable	80,000	70,000
Merchandise Inventory	60,000	65,000
Property and Equipment	110,000	60,000
Less: Accumulated Depreciation	(30,000)	(15,000)
Total Assets	$270,000	$252,000
Liabilities:		
Accounts Payable	$ 10,000	$ 12,000
Salaries and Wages Payable	2,000	1,000
Notes Payable, Long-Term	50,000	60,000
Stockholders' Equity:		
Common Stock	100,000	80,000
Retained Earnings	108,000	99,000
Total Liabilities and Stockholders' Equity	$270,000	$252,000

Income Statement for the year ended 30 June 2019

Sales	$200,000
Cost of Goods Sold	110,000
Depreciation Expense	15,000
Other Expenses	50,000
Net Profit	$ 25,000

Other information from the company's records includes the following:

- Bought equipment for cash, $50,000.
- Paid $10,000 on long-term note payable.
- Issued new shares of common stock for $20,000 cash.
- Cash dividends of $16,000 were declared and paid to stockholders.
- Accounts Payable arose from inventory purchases on credit.
- Income Tax Expense ($4,000) and Interest Expense ($3,000) were paid in full at the end of both years and are included in Other Expenses.

(a) (6 marks) Prepare the Statement of Cash Flows for the year ended 30 June 2019.

(b) (4 marks) Using the Statement of Cash Flows, evaluate the financial stability of the company for the year.

Answer:

(a)

Strawberry Shortcake Limited
Statement of Cash Flows
For the Year Ended 30 June 2019

Cash Flows from Operating Activities	
Net Profit	$ 25,000
Adjustments to reconcile net profit to net cash provided by operating activities:	
Depreciation	15,000
Changes in current assets and current liabilities:	
Accounts Receivable	(10,000)
Inventories	5,000
Accounts Payable	(2,000)
Salaries and Wages Payable	1,000
Net cash provided by (used in) operating activities	34,000
Cash Flows from Investing Activities	
Additions to property, plant, and equipment	(50,000)
Net cash provided by (used in) investing activities	(50,000)
Cash Flows from Financing Activities	
Payments on long-term debt	(10,000)
Proceeds from issuance of stock	20,000
Payment of cash dividends	(16,000)
Net cash provided by (used in) financing activities	(6,000)
Net increase (decrease) in cash and cash equivalents	(22,000)
Cash and cash equivalents, beginning of period	72,000
Cash and cash equivalents, end of period	$ 50,000

(b)

Even though the company made a profit for the year, the cash account for Strawberry Shortcake Limited decreased by $22,000.

Nonetheless, this is not a concern as the operating activities provided $34,000. The fall in cash was due to investing activities and financing activities.

Investing activities used $50,000 to buy property, plant and equipment, which portends well for the future.

Financing activities used $6,000 more than they provided. A stock issuance brought in $20,000, which was used to pay cash dividends of $16,000 and repay a portion of long-term debt. This reflects a lower credit risk.

(Any other relevant points are also accepted)

Question 2:

Consider a new start-up Blueberry Muffin Limited which began business on 1 January 2018 by issuing all of its 1,000,000 authorized shares of its $1 par value common stock for $40 per share.

On 30 June 2018, the company declared a cash dividend of $2 per share to shareholders of record on 31 July 2018.

On 30 August 2018, the company paid the cash dividend.

On 1 November 2018, the company reacquired 200,000 of its own shares of stock for $50 per share.

On 22 December 2018, the company resold 100,000 of these shares for $60 per share.

(a) (6 marks) Prepare all of the necessary journal entries to record the events described above.

(b) (4 marks) Given that the net profit for the year was $6,000,000, prepare the shareholders' equity section of the balance sheet on 31 December 2018.

Answer:

(a)

	Dr	Cr
Cash *(1,000,000 × $40)*	40,000,000	
Common Stock *(1,000,000 × $1)*		1,000,000
Additional Paid-in Capital *(1,000,000 × $39)*		39,000,000
Dividends *(1,000,000 × $2)*	2,000,000	
Dividends Payable		2,000,000
Dividends Payable	2,000,000	
Cash		2,000,000
Treasury Stock *(200,000 × $50)*	10,000,000	
Cash		10,000,000
Cash *(100,000 × $60)*	6,000,000	
Treasury Stock *(100,000 × $50)*		5,000,000
Additional Paid-in Capital *(100,000 × $10)*		1,000,000

(b)

Shareholders' equity:	
Common Stock, $1 par value, 1,000,000 shares authorized; 1,000,000 shares issued, 900,000 shares outstanding	$ 1,000,000
Additional Paid-in Capital	40,000,000
Retained Earnings *($0 + $6,000,000 – $2,000,000)*	4,000,000
	45,000,000
Less: Treasury Stock (100,000 shares, at cost)	(5,000,000)
Total Shareholders' Equity	$40,000,000

Question 3:

(a) (3 marks) Identify the role of the matching principle in accounting for long-lived assets.

(b) (3 marks) If an entity overstates its ending inventory for the current year, what are the effects on the income statement and balance sheet?

(c) (4 marks) During a period of rapidly rising inventory prices and a significant increase in inventory, a financial analyst made the following statement:

"I rank a company's earning power by using earnings per share. You do not need to understand accounting policies in order to compare earnings per share of two companies."

Respond to the statement made by the financial analyst relating to the implications of choosing an inventory valuation method.

Answer:

(a)

Matching principle –expenses should be recognised in the same period as the related revenues which they are incurred for

Here, costs of long-lived assets are capitalized and reported as assets on the balance sheet.

The estimated useful life is used as a basis for estimating the period of time in which the cost of the asset will be allocated.

The depreciation method is chosen based on what method will best allocate the cost of the asset incurred to accounting periods in which the respective revenue was earned.

(b)

If ending inventory is overstated at the end of the year, assets will be overstated and cost of goods sold will be understated.

When this occurs, expenses are less than expected, which causes net profit to be overstated.

When net profit is overstated, the amount closed to retained earnings at the end of the accounting period is more than what it should be. This creates an overstatement of retained earnings. Since retained earnings is part of shareholders' equity, this amount also will be overstated.

(c)

During a period of significantly increasing prices and inventory, the choice of FIFO or LIFO inventory valuation methods can significantly influence measured current assets and income for corporations that carry significant inventory and whose cost of goods sold is a major expense.

Under these conditions, the firm that uses FIFO will have a greater income number than that of the firm that uses LIFO. Thus, when their earnings per share are compared, adjustments for this difference should be made.

These adjustments may involve an approximation of the difference in the EPS figure caused by the use of LIFO or FIFO.

As a minimum, the user should realize the direction of the "bias" caused by the differing inventory valuation methods and digest the EPS numbers accordingly.

However, if inventory and cost of goods sold are not a significant component of the firm's financial statements, or prices do not change significantly, then perhaps the financial analyst's position would be justified.

(Any other relevant points are also accepted)

Question 4:

(a) (4 marks) Orchard Blossom Limited adjusts its books each month. The trial balance at 31 March 2018 *before adjustments* is as follows:

	Debit	Credit
Cash	$10,920	
Accounts Receivable	9,620	
Supplies	1,300	
Prepaid Insurance	3,120	
Equipment	26,000	
Accumulated Depreciation: Equipment		$ 10,400
Unearned Service Revenue		6,500
Share Capital		5,200
Retained Earnings		23,400
Dividends	1,560	
Service Revenue Earned		16,510
Salaries Expense	7,800	
Utilities Expense	390	
Rent Expense	1,300	
	$62,010	$62,010

(i) According to service contracts, $4,810 of the Unearned Service Revenue has been earned in March. Determine the amount of Service Revenue earned to be reported in the March income statement.

(ii) On 1 March 2018, Orchard Blossom Limited paid in advance for four months' insurance. Determine the necessary adjusting entries at 31 March 2018.

(iii) The equipment had an estimated useful life of five years with no residual value.

Given that the firm used a straight-line depreciation method, compute the book value of the equipment at 31 March 2018 (after the proper March adjustment is recorded).

(b) (6 marks) Lemon Meringue is an American based company that reports its financial statements using the U.S. dollars. Prepare journal entries to record each of the following events for Lemon Meringue.

(i) **10 October 2018:** Purchased merchandise on account from Le Croissant a French company, for 80,000 euros. The exchange rate was $0.82 U.S. dollars per Euro.

(ii) **2 November 2018:** Paid Le Croissant for the merchandise purchased on October 1. The exchange rate at this date was $0.83 U.S. dollars per Euro.

(iii) **15 November 2018:** Sold merchandise to Oishi Desu, a Japanese company for 300,000 yen on account. The rate of exchange was 0.0091 U.S. dollars per yen.

(iv) **20 November 2018:** The Japanese company, Oishi Desu paid the full amount. The exchange rate was 0.0090 U.S. dollars per yen.

(v) **5 December 2018:** Sold merchandise to Pisa Mon, an Italian company for $24,000. The exchange rate is 0.81 U.S. dollars per Euro. The Italian company agrees to pay in U.S. dollars.

(vi) **18 December 2018:** Collected the full amount from the Italian company, Pisa Mon. The exchange rate is 0.79 U.S. dollars per Euro.

Answer:

(a)

(i) $16,510 + $4,810 = $21,320

(ii) Dr Expenses $780   Credit Prepaid Insurance $780

Working: $3,120/4 = $780

(iii) $26,000/60 = $433;

$10,400 + $433 = $10,833; $26,000 - $10,833 = $15,167

(b)

(i)	Inventory	65,600	
	Accounts Payable		65,600
(ii)	Accounts Payable	65,600	
	Loss on exchange rate	800	
	Cash		66,400
(iii)	Accounts Receivables	2,730	
	Sales		2,730
(iv)	Cash	2,700	
	Loss on exchange rate	30	
	Accounts Receivables		2,730
(v)	Accounts Receivables	24,000	
	Sales		24,000
(vi)	Cash	24,000	
	Accounts Receivables		24,000

Question 5:

(a) (6 marks) Given below are comparative balance sheets and an income statement for Raspberry Torte in the Year 2017.

Raspberry Torte Balance Sheets in the Year 2017	31 December	1 January		Raspberry Torte Income Statement For the year ended 31 December 2017	
Equipment (net)	$ 57,200	$66,300		Sales	$228,800
Inventory	32,500	36,400		Cost of goods sold	(137,540)
Accounts receivable	46,800	37,700		Gross profit on sales	$ 91,260
Cash	15,600	15,600		Operating expenses	(75,868)
	$152,100	$156,000		Operating profit	$ 15,392
				Interest expense and income taxes	(9,100)
Accounts payable	26,000	28,600		Net Profit	$ 6,292
Dividends payable	7,800	3,900			
Long-term note payable	14,300	14,300			
Share capital, $5 par	72,800	72,800			
Retained earnings	31,200	36,400			
	$152,100	$156,000			

(i) Calculate the Cash Conversion Cycle of Raspberry Torte.
State your assumptions clearly.

(ii) Evaluate the profitability of Raspberry Torte using different financial ratios.

(b) (4 marks) Consider the balance sheet of Plum Pudding as of 31 December 2018.

Plum Pudding
Balance Sheet as as of 31 December 2018

Equipment (net)	$ 30,000		Current Liabilities	10,000
Inventory	1,000		Long Term Bonds	6,000
Accounts receivable	1,000			$16,000
Cash	10,000			
	$42,000		Share capital, $5 par	16,000
			Retained earnings	10,000
				$26,000

The management is considering using $3,000 of excess cash to prepay $3,000 of outstanding bonds. Discuss the implications on the liquidity and solvency ratios of Plum Pudding.

Answer:

(a) (i)

-Accounts Receivable Turnover = $228,800/ [($46,800 + $37,700)/2] = 5.4

Average Days to collect receivables = 67.6

-Inventory Turnover = 137,540/[(32,500 + 36,400)/2] = 3.99

Average Days to sell inventories = 91.5

-Accounts Payables Turnover = $137,540/ [($26,000 + $28,600)/2] = 5.04

Average Days to pay payables = 72.4

Therefore, Cash Conversion Cycle = 67.6 + 91.5 - 72.4 = 86.7

(ii)

Gross Profit rate = $91,260/$228,800 * 100% = 39.9%

Return on asset = $15,392/[(($152,100 + $156,000)/2)] = 9.9%

Return on equity= $6,292/[($104,000 + $109,200)/2] = 5.9%

(b)

Prepaying the debt would cause the firm's debt-to-equity ratio to improve from 0.62 to 0.50.

Current Situation: Debt-to-equity ratio = 16 / 26 or 0.62.

If debt is prepaid: Debt-to-equity ratio = 13 / 26 or 0.50.

However, this will cause current ratio to fall from 1.2 to 0.9.

Current Situation: Current ratio = 12 / 10 = 1.2

If debt is prepaid: Current ratio = 9 / 10 = 0.9

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