

**FANLING LUTHERAN SECONDARY SCHOOL
2016–2017 S6 MOCK EXAMINATION**

**BUSINESS, ACCOUNTING AND FINANCIAL STUDIES PAPER 2A
Accounting Module**

Date : 20th January, 2017

Time allowed: 10:15 am - 12:30 pm (2 hour 15 minutes)

This paper must be answered in English

INSTRUCTIONS:

1. There are three sections in this paper
2. All questions in Section A and B are **COMPULSORY**. You are required to answer **ONE** of the two questions in Section C.
3. Write your answers in the answer sheet. Start **EACH** question (not part of a question) on a **NEW** page.
4. This paper contains 7 pages.

SECTION A (24 marks)Answer **ALL** questions in this section.

1. Wong Kee Co is a manufacturing company. Budgeted production information for the month ended 31 March 2016 for 'Efficient', one of its products, is as follows:

Production and sales (units)	300,000	600,000
	\$	\$
Direct labour	300,000	600,000
Indirect labour	660,000	1,080,000
Direct materials	1,650,000	3,300,000
Factory overheads	3,000,000	3,000,000
Selling and distribution expenses	1,800,000	2,700,000

REQUIRED:

Classify the above costs into:

- (a) Fixed costs
- (b) Variable costs
- (c) Mixed costs

(Total 6 marks)

2. James Co had the following credit sales for the month of June 2016

2016

Jun	6	To Jenny Wong: List price \$10,000. Less a \$500 trade discount.
"	10	To Tony Lam: List price \$20,000. Less a 7% trade discount.
"	13	To Larry Chan: List price \$30,000. Less an 11% trade discount.
"	25	To Amy Lee: List price \$25,000. Less a \$1,200 trade discount.
"	28	To Ann Leung: List price \$7,000. Less a 3% trade discount.

REQUIRED:

Write up the sales journal for the month of June 2016.

(Total 6 marks)

2

Sales Journal			
Date		Details	Amount
2016			\$
Jun	6	Jenny Wong (\$10,000 – \$500)	9,500
"	10	Tony Lam [\$20,000 × (1 – 7%)]	18,600
"	13	Larry Chan [\$30,000 × (1 – 11%)]	26,700
"	25	Amy Lee (\$25,000 – \$1,200)	23,800
"	28	Ann Leung [\$7,000 × (1 – 3%)]	6,790
"	30	Total credit sales for the month	85,390

3. Jason Lam operates a trading business. The business has a financial year that ends on 31 December. On 8 January 2016, the annual inventory count was carried out and the inventory as at that date was valued at \$212,000.

Upon investigation, the following information was discovered from the accounting records:

- (i) Goods of \$30,000 (at list price) were purchased on 5 January 2016. A trade discount of 5% was received.
- (ii) Goods were sold for \$80,000 during the period 1–7 January 2016. A uniform mark-up of 100% was applied to all goods sold.
- (iii) On 4 January 2016, an inventory item costing \$3,500 was returned to Lam Kee Co, a supplier. This item was purchased on 29 December 2015.
- (iv) Goods with a selling price of \$4,000 were returned by customers during the period 1–7 January 2016.
- (v) An inventory item costing \$8,800 was purchased on 1 January 2015. This item had become obsolete and could only be sold for 10% of its original cost. This item was recorded at cost in inventory valuation.

REQUIRED:

Prepare a statement to determine the value of inventory as at 31 December 2015.

(Total 6 marks)

3

Jason Lam
Statement of Value of Inventory as at 31 December 2015

	\$	\$
Value of inventory as at 8 January 2016		212,000
<i>Add</i> Sales, 1–7 January 2016 (at cost) [$\$80,000 \div (1 + 100\%)$] (ii)	40,000	
Returns outwards, 4 January 2016 (iii)	3,500	43,500
		255,500
<i>Less</i> Purchase, 5 January 2016 (i) [$\$30,000 \times (1 - 5\%)$]	28,500	
Returns inwards, 1–7 January 2016 (at cost) [$\$4,000 \div (1 + 100\%)$] (iv)	2,000	
Obsolete inventory written down to net realizable value (v) [$\$8,800 - (\$8,800 \times 10\%)$]	7,920	38,420
Value of inventory as at 31 December 2015		<u>217,080</u>

4. Anna, Bob and Carol are in partnership, sharing profits and losses in the ratio of 3 : 2 : 1. You are given the following information on the partnership for the year ended 31 March 2016:
- (i) Net profit for the year: \$350,000.
 - (ii) Interest on capital: 5% per annum, calculated based on the capital account balances at the beginning of the financial year.
 - (iii) Carol was entitled to a salary of \$100,000 per annum.
 - (iv) Capital account balances as at 1 April 2015: Anna \$1,200,000, Bob \$600,000, Carol \$200,000.

REQUIRED:

Prepare the partnership's appropriation account for the year ended 31 March 2016.

(Total 6 marks)

Kelvin and Lawrence were partners, sharing profit and losses in the ratio of 2 : 1. The statement of financial position of the partnership as at 31 December 2016 was shown below:

Statement of Financial Position as at 31 December 2016

	\$	\$		\$	\$
Non-current assets			Capital accounts		
Office furniture, at net book value		477,500	Kelvin	400,000	
Office equipment, at net book value		<u>210,000</u>	Lawrence	<u>300,000</u>	700,000
		687,500			
Current assets			Non-current liabilities		
Inventory	54,030		Bank loans		80,000
Accounts receivable	38,400				
Bank	<u>24,980</u>		Current liabilities		
		117,410	Accounts payable		<u>24,910</u>
		<u>804,910</u>			<u>804,910</u>

On 31 December 2016, the partnership was dissolved on the following terms:

- (i) The office furniture and office equipment were sold for \$400,000 and \$205,500 respectively.
- (ii) Inventory was taken over by Kelvin for \$45,000.
- (iii) Accounts receivable were taken over by Lawrence at \$35,400.
- (iv) Liabilities were fully repaid.
- (v) The dissolution costs amounted to \$5,000.

REQUIRED:

Prepare the following accounts to record above transactions.

- (a) Realisation account
- (b) Bank account
- (c) Partners' capital accounts (columnar form)

Profit and Loss Appropriation

	\$	\$		\$
Interest on capital – Current: Anna		60,000	Profit and loss (net profit)	350,000
– Current: Bob		30,000		
– Current: Carol		10,000		
Salary to partner –Current: Carol		100,000		
Share of profit – Current: Anna (3/6)	75,000			
– Current: Bob (2/6)	50,000			
– Current: Carol (1/6)	25,000	150,000		
		350,000		350,000

(a)

Realisation

	\$		\$	\$
Office furniture	477,500	Bank — Office furniture		400,000
Office equipment	210,000	Bank — Office equipment		205,500
Inventory	54,030	Capital: Kelvin—Inventory taken over		45,000
Accounts receivable	38,400	Capital: Lawrence—Accounts receivable taken over		35,400
Bank — Dissolution costs	5,000	Loss on realisation —		
		Capital: Kelvin ($\frac{2}{3}$)	66,020	
		Capital: Lawrence ($\frac{1}{3}$)	33,010	99,030
	784,930			784,930

(b)

Bank

	\$		\$
Balance b/f	24,980	Realisation — Dissolution costs	5,000
Realisation — Office furniture	400,000	Bank loans	80,000
Realisation — Office equipment	205,500	Trade payables	24,910
		Capital: Kelvin— Final settlement	288,980
		Capital: Lawrence— Final settlement	231,590
	630,480		630,480

(c)

Capital

	Kelvin	Lawrence		Kelvin	Lawrence
	\$	\$		\$	\$
Realisation—Inventory	45,000	—	Balances b/f	400,000	300,000
—Accounts receivable	—	35,400			
—Share of loss	66,020	33,010			
Bank — Final settlement	288,980	231,590			
	400,000	300,000		400,000	300,000

SECTION B (36 marks)

Answer **ALL** questions in this section.

5. Joyce Sze operates a trading business. Her business's bank statement for July 2016 showed a debit balance of \$121,335 as at 31 July 2016, which failed to agree with the cash book balance. After investigation, the following information was found:
- (i) Joyce deposited a cheque of \$21,000 as additional capital on 29 July 2016 but it did not appear in the bank statement.
 - (ii) Three cheques amounting to \$1,358, \$2,222 and \$3,508, respectively, were deposited on 30 July 2016 but did not appear in the bank statement.
 - (iii) Two cheques drawn in July 2016 were not yet presented for payment: Tony Ko \$6,660, Wong Kee Co \$21,500.
 - (iv) Electricity fee of \$3,500 paid by autopay were not recorded in the cash book.
 - (v) Fire insurance premium of \$60,000 for two years ending 31 July 2018 was paid by direct debit. This transaction was not recorded in the cash book.
 - (vi) A cheque of \$10,000 from Ning Kee Co was returned by the bank marked 'Dishonoured — Refer to the drawer'.
 - (vii) A cheque of \$23,500 paid to Chan's Ltd, a trade creditor, was recorded on the debit side of the cash book and the credit side of Chan's Ltd's account.
 - (viii) Bank overdraft interest of \$1,080 was not recorded in the cash book.

REQUIRED:

- (a) Prepare a bank reconciliation statement as at 31 July 2016, commencing with the unadjusted cash book balance.
- (b) Update the cash book.
- (c) Prepare a bank reconciliation statement as at 31 July 2016, commencing with the bank statement balance and ending with the adjusted cash book balance.

(Total 12 marks)

5 (a)

Joyce Sze
Bank Reconciliation Statement as at 31 July 2016

	\$	\$
Balance as per cash book (balancing figure)		173
<i>Add</i> Unpresented cheques (iii) (\$6,660 + \$21,500)		28,160
		28,333
<i>Less</i> Uncredited cheques (\$21,000 + \$1,358 + \$2,222 + \$3,508) (i & ii)	28,088	
Electricity fee — Autopay (iv)	3,500	
Prepaid fire insurance premium — Direct debit (v)	60,000	
Ning Kee Co — Dishonoured cheque (vi)	10,000	
Chan's Ltd — Payment recorded on the debit side of the cash book (vii) (\$23,500 × 2)	47,000	
Bank overdraft interest (viii)	1,080	149,668
Overdraft balance as per bank statement		(121,335)

(b)

				Bank			
2016			\$	2016			\$
Jul	31	Balance b/d (from (a))	173	Jul	31	Electricity fee — Autopay (iv)	3,500
"	31	Balance c/d	121,407	"	31	Prepaid fire insurance premium-Direct debit (v)	60,000
				"	31	Ning Kee Co—Dishonoured cheque(vi)	10,000
				"	31	Chan's Ltd-Payment recorded on debit side (vii)	47,000
				"	31	Bank overdraft interest (viii)	1,080
			121,580				121,580

(c)

Joyce Sze
Bank Reconciliation Statement as at 31 July 2016

	\$
Overdraft balance as per bank statement	(121,335)
<i>Add</i> Uncredited cheques (i & ii) (\$21,000 + \$1,358 + \$2,222 + \$3,508)	28,088
	(93,247)
<i>Less</i> Unpresented cheques (iii) (\$6,660 + \$21,500)	28,160
Adjusted overdraft balance as per cash book	(121,407)

- 6 Caroline Cheng is a sole trader. You are given the following figures for her business for the year ended 30 June 2016:

Capital, 1 July 2015	\$2,000,000
Capital introduced during the year	\$650,000
Drawings during the year	\$150,000
Return on capital employed	20%

REQUIRED:

- (a) Prepare a statement of financial position extract as at 30 June 2016, showing the equity section.

You are given the following information relating to the income statement for the same year:

- (i) The net profit ratio was 20%.
- (ii) The gross profit ratio was 60%.
- (iii) Half of the expenses were wages and salaries. Other operating expenses amounted to \$8,000. The only other expense was rent and rates.
- (iv) Inventory as at 1 July 2015 was valued at \$20,000.
- (v) The inventory turnover ratio for the year was 10 times.

REQUIRED:

- (a) Prepare an income statement for the year ended 30 June 2016.

(Total 12 marks)

- 6 (a)

Caroline Cheng
Statement of Financial Position as at 30 June 2016 (extract)

	\$
Capital, 1 July 2015	2,000,000
<i>Add</i> Net profit for the year (Workings)	500,000
Capital introduced	650,000
	3,150,000
<i>Less</i> Drawings	150,000
Capital, 30 June 2016	3,000,000

Return on capital employed = 20%

Net profit for the year ÷ Average capital employed × 100% = 20%

Net profit for the year ÷ {[\$2,000,000 + (\$2,000,000 + \$650,000 – \$150,000 + Net profit for the year)] ÷ 2} × 100% = 20%

Net profit for the year = \$500,000

(b)

Caroline Cheng
Income Statement for the year ended 30 June 2016

Sales (W1)			2,500,000
Less	<i>Cost of goods sold:</i>		
	Opening inventory	20,000	
	Add Purchases (balancing figure)	1,160,000	
		1,180,000	
	Less Closing inventory (W3)	180,000	1,000,000
Gross profit (W2)			1,500,000
Less	<i>Expenses:</i>		
	Wages and salaries (W4)	500,000	
	Other operating expenses	8,000	
	Rent and rates (balancing figure)	492,000	1,000,000
Net profit (from (a))			500,000

(W1) Net profit ratio = Net profit ÷ Net sales × 100%

Thus, \$500,000 ÷ Net sales × 100% = 20%

Net sales = \$2,500,000

(W2) Gross profit ratio = Gross profit ÷ Net sales × 100%

Thus, Gross profit ÷ \$2,500,000 × 100% = 60%

Gross profit = \$1,500,000

(W3) Inventory turnover = Cost of goods sold ÷ Average inventory

Thus, (Sales – Gross profit) ÷ Average inventory = Inventory turnover

$(\$2,500,000 - \$1,500,000) \div [(\$20,000 + \text{Closing inventory}) \div 2] = 10$

Closing inventory = \$180,000

(W4) Wages and salaries = 50% of expenses

Thus, wages and salaries = 50% of the difference between gross profit and net profit

Wages and salaries = $(\$1,500,000 - \$500,000) \times 50\% = \$500,000$

7. Alice Ltd makes and sells a single product. The following information concerns the production and sales of this product:

Annual demand	1,000,000 units
Unit selling price	\$50
Direct labour	\$20 per unit
Direct materials	\$5 per unit
Production overheads	\$8,000,000
Non-production overheads	\$8,000,000

Additional information:

- (i) Variable production overheads amount to 25% of direct labour cost.
- (ii) All non-production overheads are fixed.

REQUIRED:

- (a) Calculate the unit contribution margin.
- (b) Calculate the margin of safety in units.

Wah Kee, a machinery supplier, offers to provide Alice Ltd with machinery for \$25,000,000 per year. Direct labour cost and variable production overheads would drop by 50% with the hiring of machinery. Fixed production overheads would be reduced by 60%. With improved product quality as a result of increased automation, the product's selling price can be increased by 20% without affecting the demand.

REQUIRED:

- (c) Should Alice Ltd hire the machinery? Show all calculations.

(Total 12 marks)

- 7 (a) $\text{Unit contribution margin} = \$50 - \$20 - \$5 - (\$20 \times 25\%)$
 $= \$20$
- (b) $\text{Fixed production overheads} = \$8,000,000 - (1,000,000 \times \$20 \times 25\%)$
 $= \$3,000,000$
 $\text{Breakeven sales units} = (\$3,000,000 + \$8,000,000) \div \20
 $= 550,000 \text{ units}$
 $\text{Margin of safety in units} = 1,000,000 - 550,000$
 $= 450,000 \text{ units}$
- (c) $\text{Margin of safety in units} = 1,000,000 - 550,000$
 $= 450,000 \text{ units}$

(c)

	Hire the machinery	Do not hire the machinery
	\$	\$
Machinery hiring charge	(25,000,000)	—
Reduction in direct labour cost ($1,000,000 \times \$20 \times 50\%$)	10,000,000	
Reduction in variable production overheads ($1,000,000 \times \$20 \times 25\% \times 50\%$)	2,500,000	—
Reduction in fixed production overheads ($\$3,000,000 \times 60\%$)	1,800,000	—
Increase in sales revenue ($1,000,000 \times \$50 \times 20\%$)	10,000,000	—
Reduction in profits	(700,000)	—

The company should not hire the machinery as this will result in a reduction in profits of \$700,000.

SECTION C (20 marks)Answer **ONE** question in this section.

8. The following balances were extracted from the books of B&B Ltd as at 30 September 2016:

		<i>Cr</i> \$
Office equipment, at cost	2,000,000	
Purchases	610,000	
Rent	250,000	
Trade receivables	180,000	
Wages and salaries	170,000	
Inventory, 1 October 2015	55,400	
Bank	17,995	
Auditor's fees	4,050	
Discounts allowed	2,900	
Sales		1,312,500
Ordinary share capital		1,036,245
Office equipment, accumulated depreciation		500,000
Retained profits		176,500
General reserve		100,000
Commission revenue		100,000
Trade payables		44,000
Discounts received		15,100
Allowance for doubtful debts		6,000
	<u>3,290,345</u>	<u>3,290,345</u>

Additional information:

- (i) Inventory as at 30 September 2016 cost \$130,000 but could only be sold for \$106,500.
- (ii) Salaries of \$1,105 were accrued as at the year-end date.
- (iii) The allowance for doubtful debts was to be kept at 5% of trade receivables.
- (iv) The board of directors resolved to transfer \$200,000 of profits to the general reserve.
- (v) Depreciation on office equipment was to be charged using the reducing-balance method. The depreciation rate was 10% per annum.
- (vi) Income tax expense was estimated to be \$42,053.

REQUIRED:

- (a) Prepare an income statement for the year ended 30 September 2016.
- (b) Prepare a statement of financial position as at 30 September 2016.

(Total: 20 marks)

B&B Ltd
Income Statement for the year ended 30 September 2016

		\$	
Sales			1,312,500
Less	Cost of goods sold:		
	Opening inventory	55,400	
	Add Purchases	610,000	
		665,400	
	Less Closing inventory	106,500	558,900
Gross profit			753,600
Add	Other revenues:		
	Discounts received	15,100	
	Commission revenue	100,000	115,100
			868,700
Less	Expenses:		
	Discounts allowed	2,900	
	Wages and salaries (\$170,000 + \$1,105)	171,105	
	Rent	250,000	
	Auditor's fees	4,050	
	Depreciation: Office equipment $[(\$2,000,000 - \$500,000) \times 10\%]$	150,000	
	Increase in allowance for doubtful debts $[(\$180,000 \times 5\%) - \$6,000]$	3,000	581,055
Net profit			287,645
Less	Income tax expense		42,053
Profit after tax			245,592
Add	Retained profits brought forward		176,500
			422,092
Less	Appropriations:		
	Transfer to general reserve		200,000
Retained profits carried forward			222,092

(b)

B&B Ltd
Statement of Financial Position as at 30 September 2016

			\$	\$
			<i>Accumulated</i>	<i>Net</i>
<i>Non-current assets</i>		Cost	<i>depreciation</i>	<i>book value</i>
Office Equipment		2,000,000	650,000*	1,350,000
<i>Current assets</i>				
Inventory			106,500	
Trade receivables		180,000		
Less	Allowance for doubtful debts (\$180,000 × 5%)	9,000	171,000	
Bank			17,995	
			295,495	
Less	<i>Current liabilities:</i>			
	Trade payables	44,000		
	Accrued expenses	1,105		
	Tax payable	42,053	87,158	
Net current assets				208,337
				1,558,337
<i>Financed by:</i>				
<i>Capital and reserves</i>				
Ordinary share capital				1,036,245
General reserve (\$100,000 + \$200,000)				300,000
Retained profits				222,092
				1,558,337

*\$500,000 + \$150,000 = \$650,000

9. You are given the following figures on Victory Ltd for the year ended 31 December 2015:

Furniture and fixtures, at cost	\$3,000,000
Furniture and fixtures, accumulated depreciation	\$1,000,000
Vans, at cost	\$2,000,000
Vans, accumulated depreciation	\$700,000
Net sales	\$5,000,000
Gross profit	\$1,800,000
Operating expenses	\$800,000
Inventory, 31 December 2015	\$120,000
Cash at bank	\$55,000
Trade receivables, 31 December 2015	\$110,000
Trade payables, 31 December 2015	\$160,000
Accrued expenses	\$37,000
6% debentures, repayable on 1 January 2030	\$600,000
Total equity, 31 December 2015 (including net profit for the year)	\$2,788,000

Victory Ltd had only issued ordinary shares.

REQUIRED:

Calculate the following ratios for the year ended 31 December 2015:

- (a) Current ratio
 - (b) Acid test ratio
 - (c) Gross profit ratio
 - (d) Net profit ratio
 - (e) Gearing ratio
 - (f) Total assets turnover
- (Calculations to one decimal place)

The average ratios of other businesses in the same industry for the same year are as follows:

Current ratio	2.1 : 1
Acid test ratio	1.3 : 1
Gross profit ratio	15%
Net profit ratio	5%
Gearing ratio	55%
Total assets turnover	8.2 times

REQUIRED:

- (g) Comment on the liquidity, profitability, solvency and management efficiency of Victory Ltd relative to competitors in the same industry.

- 7 (a) **Current ratio** = Current assets ÷ Current liabilities
 = (\$120,000 + \$55,000 + \$110,000) ÷ (\$160,000 + \$37,000)
 = 1.4 : 1
- (b) **Acid-test ratio** = (Current assets – Inventory) ÷ Current liabilities
 = (\$55,000 + \$110,000) ÷ (\$160,000 + \$37,000)
 = 0.8 : 1
- (c) **Gross profit ratio** = Gross profit ÷ Net sales × 100%
 = \$1,800,000 ÷ \$5,000,000 × 100%
 = 36%
- (d) **Net profit ratio** = Net profit ÷ Net sales × 100%
 = (\$1,800,000 – \$800,000) ÷ \$5,000,000 × 100%
 = 20%
- (e) **Gearing ratio** = Non-current liabilities ÷ (Non-current liabilities + Shareholders' fund) × 100%
 = \$600,000 ÷ (\$600,000 + \$2,788,000) × 100%
 = 17.7%
- (f) **Total assets turnover** = Net sales ÷ Total assets
 = \$5,000,000 ÷ [(\$3,000,000 – \$1,000,000) + (\$2,000,000 – \$700,000) + \$120,000 + \$55,000 + \$110,000]
 = 1.4 times
- (g) **Liquidity:**
 Victory Ltd's current ratio (1.4 : 1 vs. 2.1 : 1) and acid test ratio (0.8 : 1 vs. 1.3 : 1) were both lower than the industry averages.
 This means that Victory Ltd was less liquid than its competitors.
- Profitability:**
 Victory Ltd's gross profit ratio (36% vs. 15%) and net profit ratio (20% vs. 5%) were both higher than the industry averages.
 This means that Victory Ltd was more profitable than its competitors.
- Solvency:**
 Victory Ltd had a much lower gearing ratio (17.7% vs. 55%) than the industry average.
 This means that Victory Ltd was more solvent than its competitors.
- Management efficiency:**
 Victory Ltd's total assets turnover (1.4 times vs. 8.2 times) was much lower than the industry average.
 This shows that Victory Ltd was less efficient in utilising its assets to generate sales revenue than its competitors.

(Total 20 marks)

END OF PAPER