

Fanling Lutheran Secondary School

2024-2025 First Term Uniform Test

S6 BUSINESS, ACCOUNTING & FINANCIAL STUDIES

QUESTION-ANSWER BOOK

November 6, 2024

Time allowed: 1 hour 30 minutes

Instructions:

1. This paper consists of 6 pages.
2. Full marks of this paper is 98.
3. Write your Name, Class, Class No., Seat No. and Group No. in the spaces provided on Page 1.
4. This paper must be answered in English.
5. Write your answer in the spaces provided in this Question-Answer Book. Do not write in the margins. Answers written in the margins will not be marked.
6. Supplementary answer sheets will be provided on request. Write your Class Number, mark the question number box and staple them to this Question-Answer Book.

Name :	
Class :	()
Seat No. :	

Question No.	Marker's Use Only	
Section A		
1		
2		
Section B		
1		
2		
3		
4		
Total		

Section A (30 marks)

1. Net profit for the year amounted to \$300,000. Drawings made on 1 July 2024: Li \$18,000, Chan \$12,000. Rate of interest on drawings: 15% per annum. Capital balance and Current balance of Li and Chan are \$40,000, \$50,000 and \$10,000, \$14,000 respectively. Rate of interest on capital: 5% per annum. Li was entitled to an annual salary of \$13,550. The share profits and losses of Li and Chan are in the ratio of 4 : 1.

REQUIRED: Prepare the appropriation account of the partnership for the year ended 31 December 2024 and the partners' current accounts in columnar form.

(Total 15 marks)

Appropriation account

	\$	\$		\$
Interest on capital –			Profit and loss (net profit)	300,000
Current: Li (\$40,000x5%)		2,000	Interest on drawings –	
Current: Chan (\$50,000x5%)		2,500	Current: Li (\$18,000x15%x6/12)	1,350
Salary to partner –			Current: Chan (\$12,000x15%x6/12)	900
Current: Li		13,550		
Share of profit –				
Current: Li (4/5)	227,360			
Current: Chan (1/5)	56,840	284,200		
		302,250		302,250

Current

	Li	Chan		Li	Chan
	\$	\$		\$	\$
Drawing	18,000	12,000	Balance b/d	10,000	14,000
Appropriation–Interest on drawings	1,350	900	Appropriation–Interest on capital	2,000	2,500
Balance c/d	233,560	60,440	Appropriation–Salary to partner	13,550	—
			Appropriation–Share of profit	227,360	56,840
	252,910	73,340		252,910	73,340

2. Man and Lee were in partnership, sharing profits and losses in the ratio of 2 : 3. Capital of Man and Lee are \$40,000 and \$50,000. Goodwill was valued at \$80,000. It was decided that no account is to be kept for goodwill. On 1 January 2024, Wu was admitted to the partnership with capital contribution of \$90,000 by cheque. Premise has risen from \$70,000 to \$120,000, motor vehicles has dropped from \$40,000 to \$30,000, A bad debt recovery of \$6,000 would be collected from trade receivables, An increase in allowance for doubtful account of \$1,000, revaluation fees of \$9,000 were paid. The profits and losses sharing ratio of Man, Lee and Wu are 2:3:5.

REQUIRED: Prepare the revaluation account and the partners' capital accounts in columnar form to record the admission of Wu

(Total 15 marks)

Revaluation

	\$	\$		\$
Motor vehicles (\$40,000 – \$30,000)		10,000	Buildings (\$120,000 – \$70,000)	50,000
Allowance for doubtful accounts		1,000	Trade receivables (bad debts recovery)	6,000
Cash at bank – Professional fees		9,000		
Profit on revaluation –				
Capital: Man (2/5)	14,400			
Capital: Lee (3/5)	21,600	36,000		
		56,000		56,000

Capital

	Man	Lee	Wu		Man	Lee	Wu
	\$	\$	\$		\$	\$	\$
Goodwill (2 : 3 : 5)	16,000	24,000	40,000	Balances b/f	40,000	50,000	—
Balance c/f	70,400	95,600	50,000	Goodwill (2 : 3)	32,000	48,000	—
				Cash at bank	—	—	90,000
				Revaluation	14,400	21,600	—
	86,400	119,600	90,000		86,400	119,600	90,000

Section B (68 marks)

1. Nice Company manufactures and sells a single product which is sold at a unit price of \$100. It maintains a variable cost to sales ratio of 70%. The company does not keep inventory of the product.

Budgeted information for May 2024 is extracted below :

Sales: \$1,200,000

Production overheads: \$5 per unit

Salary of factory supervisors:	<u>Production quantity (unit)</u>	<u>Monthly salary</u>
	0 to 7,000	\$100,000
	7,001 to 14,000	\$120,000
	14,001 to 21,000	\$140,000

Factory rent: \$150,000 per month

Administrative expenses:	<u>Sales quantity (unit)</u>	<u>Monthly expenses</u>
	7,000	\$36,240
	14,000	\$53,740
	21,000	\$78,240

REQUIRED:

- (a) With reference to the above information, classify each of the following cost items (1) to (4) into fixed cost, variable cost, mixed cost or step cost :
- (1) Production overheads
 - (2) Salary of factory supervisors
 - (3) Factory rent
 - (4) Administrative expenses
- (b) Use the high-low method to calculate the variable component and the fixed component of the administrative expenses.
- (c) Calculate the contribution margin per unit for May 2024.
- (d) Calculate the breakeven sales amount for May 2024.
- (e) Calculate the margin of safety (in unit) for May 2024.

(Total 15 marks)

- (a) (1) variable cost (2) step cost (3) fixed cost (4) mixed cost
- (b) The variable administrative expenses per unit = $(\$78,240 - \$36,240) / (21,000 - 7,000) = \3 per unit
The fixed component of the administrative expenses = $\$78,240 - 21,000 \times \$3 = \$15,240$
- (c) The contribution margin per unit = $\$100 \times 30\% = \30 per unit
- (d) Total fixed cost = $\$120,000 + \$150,000 + \$15,240 = \$285,240$
The breakeven sales amount for May 2024 = $\$285,240 / \$30 \times \$100 = \$950,800$
- (e) The Budgeted sales unit for May 2024 = $\$1,200,000 / \$100 = 12,000$ units
The breakeven sales unit for May 2024 = $\$950,800 / \$100 = 9,508$ units
The margin of safety (in unit) for May 2024 = $12,000 - 9,508 = 2,492$ units

2. Joey Company commenced business to manufacture a single product, Product Y, on 1 January 2023. The following information for the year 2023 is available:

(i) Actual production cost per unit of Product Y :

	\$
Direct material cost	5.3
Direct labour cost (\$45 per direct labour hour)	13.5
Variable production overheads	6
Fixed production overheads	?

- (ii) The predetermined fixed production overhead absorption rate was \$5 per direct labour hour. Actual fixed production overheads for 2023 were the same as the budgeted amount.
- (iii) The budgeted and actual production quantity were 45,000 units and 47,000 units respectively.
- (iv) The budgeted and actual sales quantity were the same.
- (v) The contribution margin ratio was 35%.
- (vi) The closing inventory was 3,500 units.
- (vii) Actual selling expenses for 2023 were \$138,750. This was the same as budgeted. The variable component of the selling expenses was \$2.5 per unit, which varied with the sales level.

REQUIRED:

- (a) Calculate the variable cost of product Y per unit.
- (b) Calculate the selling price of product Y per unit.
- (c) Prepare the income statement for the year ended 31 December 2023 using the marginal costing system.
- (d) If the absorption costing system is used instead, explain how the net profit of 2023 will be affected with supporting calculation.

(Total 18 marks)

(a) The variable cost of product Y per unit = \$5.3 + \$13.5 + \$6 + \$2.5 = \$27.3

(b) The selling price of product Y per unit. = \$27.3/(1 – 35%) = \$42

(c)

Joey Company
Income Statement for the year ended 31 December 2023 using marginal costing

	\$	\$
Sales[(47,000 – 3,500) x \$42]		1,827,000
Less: Variable cost of goods sold:		
Direct material cost [47,000 x \$5.3]	249,100	
Direct labour cost [47,000 x \$13.5]	634,500	
Variable production overheads [47,000 x \$6]	282,000	
	1,165,600	
Less: Closing inventory (3,500 x \$1,165,600/47,000)	86,800	1,078,800
		748,200
Less: Variable selling expenses (47,000 – 3,500) x \$2.5		108,750
Contribution margin		639,450
Less: Fixed costs		
Fixed production overheads(45,000 x 13.5/45 x \$5)	67,500	
Fixed selling expenses(\$138,750 – \$108,750)	30,000	97,500
Net profit		541,950

- (d) If the absorption costing is used, absorbed fixed production overhead of closing inventor
= 3,500 x 13.5/45 x \$5 = \$5,250. In this way, the cost of goods sold will decrease and net profit will
increase \$5,250.

3. Megan Company produces and sells three kinds of water sports gears: paddles, kayaks and surfboards. The proportion of sales quantity of paddles and kayaks is maintained at a sales mix ratio of 2:1. Budgeted figures for the products for next year are as follows:

	Paddle	Kayak	Surfboard
Unit of production and sales	5,000 units	2,500 units	4,000 units
Selling price per unit	\$80	\$500	\$400
Direct material cost per kg	\$50	\$75	\$60
Direct materials per unit	0.5 kg	4 kg	2 kg
Direct labour cost per unit	\$4	\$12	\$70
Selling expenses per unit	\$1	\$18	\$10
Fixed manufacturing overhead costs	\$120,000	\$120,000	\$960,000

REQUIRED:

- (a) Calculate:
- (1) the production cost per unit of surfboards.
 - (2) the contribution margin per sales mix of paddles and kayaks.
- (b) Assuming 3,000 units of kayaks will be sold next year, and the sales mix ratio of paddles and kayaks will be maintained, calculate the sales quantity of surfboards at which Megan Company will break even.
- (c) Assuming 4,920 units of surfboards will be sold next year, and the sales mix ratio of paddles and kayaks will be maintained, calculate the sales quantity of paddles at which Megan Company will achieve a target profit of \$270,000.

(Total 19 marks)

- (a) (1) $\text{Variable production cost per unit of surfboards} = \$60 \times 2 + \$70 = \190
 $\text{Fixed production cost per unit of surfboards} = \$960,000 / 4,000 = \$240$
 $\text{The production cost per unit of surfboards} = \$190 + \$240 = \430
- (2) $\text{Contribution margin per unit of Paddle} = \$80 - \$50 \times 0.5 - \$4 - \$1 = \50
 $\text{Contribution margin per unit of Kayaks} = \$500 - \$75 \times 4 - \$12 - \$18 = \170
 $\text{The contribution margin per sales mix of paddles and kayaks} = \$50 \times 2 + \$170 = \270
- (b) $\text{Contribution margin per unit of surfboards} = \$400 - \$60 \times 2 - \$70 - \$10 = \200
 $\text{Total fixed manufacturing overhead costs} = \$120,000 + \$120,000 + \$960,000 = \$1,200,000$
 $\text{Total contribution margin of sales mix of paddles and kayaks} = \$270 \times 3,000 = \$810,000$
 $\text{Fixed manufacturing overheads for surfboards to bear} = \$1,200,000 - \$810,000 = \$390,000$
 $\text{The breakeven sales quantity of surfboards} = \$390,000 / \$200 = 1,950 \text{ units}$
- (c) $\text{Total contribution margin of surfboards} = \$200 \times 4,920 = \$984,000$
 $\text{Fixed manufacturing overheads for paddles and kayaks to bear} = \$1,200,000 - \$984,000 = \$216,000$
 $\text{The target profit quantity of sales mix} = (\$216,000 + \$270,000) / \$270 = 1,800 \text{ units}$
 $\text{The sales quantity of paddles} = 1,800 \times 2 = 3,600 \text{ units}$

4. Jacky Company is a watch manufacturer established on 1 January 2024. In its first year of operations, the production quantity and sales quantity of watches were 6,000 units and 5,000 units respectively. The information for the year ended 31 December 2024 is given below:
- The fixed manufacturing overheads for 2024 were budgeted at \$2,400,000. The company uses the absorption costing system and absorbs the fixed manufacturing overheads based on direct labour hours.
 - It was estimated that 30,000 direct labour hours would be used in 2024.
 - The following actual data for the year ended 31 December 2024 is provided:

	\$
Sales	4,800,000
Direct materials purchased	700,000
Inventory of direct materials, 31 December	100,000
Direct labour cost (hourly wage rate \$60)	1,800,000
Fixed manufacturing overheads	2,000,000
Administrative overheads	500,000

REQUIRED:

- Calculate the predetermined fixed manufacturing overhead absorption rate for 2024.
- Calculate the under-absorption or over-absorption of fixed manufacturing overheads for 2024.
- Using the absorption costing system and based on the predetermined fixed manufacturing overhead absorption rate, prepare an income statement for the year ended 31 December 2024, showing the under-absorption or over-absorption of fixed manufacturing overheads.

(Total 16 marks)

- (a) **Predetermined fixed manufacturing overhead absorption rate**

$$= \$2,400,000 / 30,000 = \$80 \text{ per direct labour hour}$$

- (b) **Absorbed fixed manufacturing overheads = \$1,800,000 / \$60 x \$80 = \$2,400,000**

$$\text{Over-absorbed fixed manufacturing overheads} = \$2,400,000 - \$2,000,000 = \$400,000$$

- (c)

Income statement for the year ended 31 December 2024

	\$	\$
Sales		4,800,000
Less: Cost of goods sold:		
Direct materials (\$700,000 – \$100,000)	600,000	
Direct labour cost	1,800,000	
Absorbed fixed manufacturing overhead	2,400,000	
	4,800,000	
Less: Closing inventory [\$4,800,000 / 6,000 x (6,000 – 5,000)]	800,000	
	4,000,000	
Add: Under-absorbed fixed manufacturing overheads	400,000	(3,600,000)
Gross profit		1,200,000
Less: Administrative overheads		(500,000)
Net profit		700,000

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