BINDURA UNIVERSITY OF SCIENCE EDUCATION

SFM 424: ANALYSIS OF FINANCIAL DATA

Time: 3 hours

JUN 2025

~~Candidates may attempt ALL questions in Section A and at most two questions in Section B.~~

Each question should start on a fresh page.

Section A (40 marks)

Candidates may attempt ALL questions being careful to number them A1 to A5.

A1. Summary financial information for Patriel Investments is as follows:

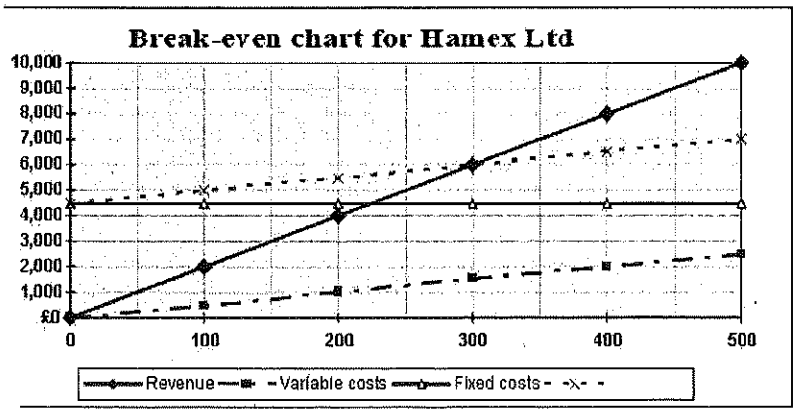
	31 Dec 2022	31 Dec 2021
Current liabilities	$224 900	$257 600
Long term liabilities	$2 235 000	$817 800
Total liabilities	$1 459 900	$1 075 400

Compute the amount and percentage changes in 2022 using horizontal analysis, assuming 2021 is the base year. [6]

A2. Explain fair value of a business. [5]

A3. Explain determinants of business value. [8]

A4. You are given the following information for Hamex Ltd in US dollars.



Break-even chart for Hamex Ltd

a) Identify the:

i) Break-even level of output [2]

ii) Profit/loss if Hamex Ltd sells all it can make [2]

iii) Profit/loss if 200 units are sold [2]

b) Explain the meaning of the term 'margin of safety' [2]

c) State the margin of safety for Hamex Ltd, if its sales are currently 450 units [2]

d) Examine one advantage and one drawback to the use of a break-even chart when deciding whether or not to increase the selling price of a product. [4]

A5. Explain what a schedule of changes in working capital is and prepare one from the following information relating to Nomalanga Ltd. [7]

	2022	**2021**		**2022**	**2021**
Share capital	4 000	3 000	Cash	900	300
Reserve	500	1 000	Accounts receivable	1 500	1 050
Retained Earnings	600	300	inventories	1 950	1 500
Accounts payable	1350	450	Fixed assets	2 100	1 900
	6 450	4 750		6 450	4 750

Section B (60 marks)

Candidates may attempt two questions being careful to number them B6 to B8.

B6. The following summarised figures relate to Turnrit PLC, a business operating in the retail sector

	$	$
	2019	**2018**
Revenue	35 000	32 000
Gross profit	6 000	5 800
Operating expenses	(2 850)	(2 300)
Interest in debenture debt	(500)	(500)
Taxation	(1 100)	(1 400)
Profit after tax	1 550	1 600
Equity capital plus reserves at year end	17 500	17 000
Debentures in issue throughout the period	6250	6 250

Note: Some equipment was sold in 2019 at a loss of $300. This loss was included in operating expenses. No such transaction occurred in 2018.

Required: Analyze the profitability of the above business in as much detail as the information permits. [30]

B7. a) Suppose Fly Limited intends to pay a $10 dividend per share next year and it is expected that this would increase by 5% per year thereafter. Furthermore, the required rate of return on Fly Limited's stock is 10%. Currently, the company stock is trading at $100 per share. Further, assume that during the next few years Fly Limited's dividends will increase rapidly and then grow at a stable rate. Next year's dividend is still expected to be $10 per share, but dividends will increase annually by 7%, then 10%, then 12%, and then steadily increase by 5% after that. Compute the intrinsic value and fair value of Fly Limited's stock. [12]

b) Calculate the trend percentages from the following figures of X Ltd. taking 2018 as the base and interpret them:

Year	Sales	Stock	Profit before tax
2018	1 881	709	321
2019	2 340	781	435
2020	2 655	816	458
2021	3 021	944	527
2022	3 768	1 154	672

[8]

c) For the following information, calculate the expected return and risk. [10]

Outcome	Probability	Outcome value
Good	30%	$40
Normal	50%	$20
Bad	20%	$10

B8. a) The following financial information relates to PATPHARM for the year ended 31 Dec 2022. PATPHARM statement of profit or loss and other comprehensive income for the year ended 31 Dec 2022.

	($ 000)
Revenue	4450
Cost of sales	(2200)
Gross profit	2250
Other income	1050
	3300
Administrative expenses	(1770)
Finance costs	(200)
Profit before tax	1330
Income tax expense	(430)
Profit for the year	900

The following administrative expenses were incurred in the year.

	$'000
Wages	700
Other general expenses	150
Depreciation	920

	1770
Other income:	
Rentals received	450
Gain on disposal of non-current assets	600
	1050

Statement of financial position extracts at:

	31 Dec 2022	*31 Dec 2021*
	($ 000)	($ 000)
Inventories	400	250
Trade receivables	500	450
Trade payables	(300)	(200)

Required

Prepare PATPHARM's statement of cash flows for the year ended 31 Dec 2022, down to the line 'Cash generated from operations', using the direct method. [10]

b) Explain how the cashflow statement is constituted. [6]

c) Motors PLC is a manufacturing company involved in the production of automobiles. Information from its last budget period is as follows:

Actual Production	275 000 units
Budgeted Production	250 000 units
Actual Fixed Production Overheads	$526 000 000
Budgeted Fixed Production Overheads	$500 000 000
Standard Fixed Overhead Absorption Rate	$2 000 per unit
Additional information:	
Standard machine hours per unit	10 hours
Actual number of machine hours	3 000 000

Calculate the fixed overhead volume variance and fixed overhead capacity variance. [6]

d) Discuss challenges faced by companies in preparing financial statements. [8]

Formula list

$$\text{Current Ratio} = \frac{\text{Total Current Assets}}{\text{Total Current Liabilities}}$$

$$\text{Quick Ratio} = \frac{\text{Total Current Assets} - \text{Inventory}}{\text{Total Current Liabilities}}$$

$$\text{Receivables Turnover} = \frac{\text{Sales}}{\text{Accounts Receivable}}$$

$$\text{Days' Receivables} = \frac{365}{\text{Receivables Turnover}}$$

$$\text{Inventory Turnover} = \frac{\text{COGS}}{\text{Inventory}}$$

$$\text{Days' Inventory} = \frac{365}{\text{Inventory Turnover}}$$

$$\text{Fixed Assets Turnover} = \frac{\text{Sales}}{\text{Net Fixed Assets}}$$

$$\text{Total Assets Turnover} = \frac{\text{Sales}}{\text{Total Assets}}$$

$$\text{Times Interest Earned} = \frac{\text{EBIT}}{\text{Interest Expense}}$$

$$\text{Debt Ratio} = \frac{\text{Total Debt}}{\text{Total Assets}} = \frac{\text{Total Assets} - \text{Total Owners' Equity}}{\text{Total Assets}}$$

$$\text{Debt to Equity Ratio} = \frac{\text{Total Debt}}{\text{Total Owners' Equity}} = \frac{\text{Total Assets} - \text{Total Owners' Equity}}{\text{Total Owners' Equity}}$$

$$\text{Equity Multiplier} = \frac{\text{Total Assets}}{\text{Total Owners' Equity}}$$

$$\textbf{Profit Margin} = \frac{\textbf{Net Income}}{\textbf{Sales}}$$

$$\text{Return on Assets (ROA)} = \frac{\text{Net Income}}{\text{Total Assets}}$$

$$\text{Return on Equity (ROE)} = \frac{\text{Net Income}}{\text{Total Owners' Equity}}$$

$$\text{Payout Ratio} = \frac{\text{Dividends Paid}}{\text{Net Income}}$$

$$\text{Retention Ratio} = \frac{\text{Addition to Retained Earnings}}{\text{Net Income}}$$

$$\text{P / E Ratio} = \frac{\text{Price Per Share}}{\text{Earnings Per Share}}$$

$$\text{Market - To - Book Ratio} = \frac{\text{Price Per Share}}{\text{Book Value Per Share}}$$

$$\text{Earnings Per Share} = \frac{\text{Net Income}}{\text{Number of Shares Outstanding}}$$

$$\text{Book Value Per Share} = \frac{\text{Total Owners' Equity}}{\text{Number of Shares Outstanding}}$$

The Capital Asset Pricing Model

$$E(r_i) = R_f + \beta_i\,(E(r_m) - R_f)$$

The Growth Model

$$P_0 = \frac{D_0(1+g)}{(K_e - g)} \text{ or } P_0 = \frac{D_0(1+g)}{(r_e - g)}$$

$$P_0 = \frac{D_0}{K_e}$$

Gordon's Growth Approximation

$$g = br_e$$

Value per share = EPS x P/E ratio

$$\text{Market value} = \frac{\text{Earnings}}{\text{Earnings yield}}$$

Materials Price Variance = (AP – SP) × AQ

Materials Usage Variance = (AQ – SQ) × SP

Labour Rate Variance = (AR – SR) × AH

Labour Efficiency Variance = (AH – SH) × SR