



STRATHMORE INSTITUTE OF MATHEMATICAL SCIENCES
BBS ACTUARIAL SCIENCE
END OF SEMESTER EXAMINATION
BSA 2103: FINANCIAL STATEMENT ANALYSIS AND VALUATION IN ACTUARIAL
SCIENCE

DATE: 27th July 2023

Time: 2 Hours

Instructions

1. This examination consists of **FIVE** questions.
2. Answer **Question ONE (COMPULSORY)** and any other **TWO** questions.

Question One

- i) Financial analysts must consider potential management influences on the financial statements when using financial reports in a valuation. The management of a company can influence financial reporting in a number of ways. Explain any three ways in which the management can influence financial reporting. **(6 marks)**
- ii) Shown below are the financial statements of Joyland Co Ltd for its most recent two years:

Statements of Profit or Loss for the year ended 30 June:

	2023	2022
	Shs '000'	Shs '000'
Revenue	150,000	110,000
Cost of sales	(117,000)	(85,800)
Gross profit	33,000	24,200
Distribution costs	(6,000)	(5,000)
Administrative expenses	(9,000)	(9,200)
Finance costs- loan note interest	(1,750)	(500)
Profit before tax	16,250	9,500
Income tax expense	(5,750)	(3,000)
Profit for the year	10,500	6,500

Statements of Financial Position as at 31 March:

	2023	2022
	Shs '000'	Shs '000'
Assets		
Non-current assets		
Property, plant and equipment	118,000	85,000

Goodwill	30,000	-
	148,000	85,000
Current assets		
Inventory	15,500	12,000
Trade receivables	11,000	8,000
Bank	500	5,000
	27,000	25,000
Total assets	175,000	110,000
Equity and liabilities		
Equity		
Equity shares of Shs. 1 each	80,000	80,000
Retained earnings	15,000	10,000
	95,000	90,000
Non-current liabilities		
10% loan notes	55,000	5,000
Current liabilities		
Trade payables	21,000	13,000
Current tax payable	4,000	2,000
	25,000	15,000
Total equity and liabilities	175,000	110,000

Required:

- a) **Compute the cash ratio explaining the relevance for this ratio.**
(3 marks)
 - b) **Discuss the concept of cash burn-out ratio and using the information provided above compute the ratio.**
(5 marks)
 - c) **Compute the gross profit margin, return on capital employed and total assets turnover for the two years discussing the profitability of the company.**
(10 marks)
 - d) **Explain the limitations of ratio analysis.**
(6 marks)
- (Total: 30 marks)**

Question Two

- (i) A "clean" audit opinion does not necessarily mean that the financial results are accurate. Discuss
(6 marks)
- (ii) The following represent the statement of profit or loss for the year ending 30 June 2023 and statement of financial position as at 30 June 2022 and 2023 for Wonderview co ltd.

WONDERVIEW COMPANY LIMITED
STATEMENT OF PROFIT OR LOSS
FOR THE YEAR ENDING 30 JUNE 2023

	Shs '000'	Shs '000'
Revenue		6,500
Cost of sales		(3,000)
Gross profit		3,500
Expenses:		
Depreciation	500	
Interest paid	100	
Salary and wages	2,600	
		(3,200)
Profit before tax		300
Income tax expense		(40)
profit after tax		260

WONDERVIEW COMPANY LIMITED
STATEMENT OF FINANCIAL POSITION
AS AT 30 JUNE

	2023		2022	
	Shs '000'	Shs '000'	Shs '000'	Shs '000'
Assets				
Non-current assets at cost		4,500		3,800
Less accumulated depreciation		(2,300)		(1,800)
Carrying amount		2,200		2,000
Current assets				
Inventory	400		500	
Account receivables	150		200	
Cash	200		100	
		750		800
Total assets		2,950		2,800
Equity and liabilities				
Equity				
Ordinary share capital		1,000		1,000
Retained earnings		710		450
		1,710		1,450
Non-current liabilities				
Debentures		900		1,000
Current liabilities				
Trade creditors	315		300	
Taxation	25		50	

		340		350
		2,950		2,800

Required:

Present the Statement of Cash Flow for the year ending 30 June 2023 discussing the distinction between net profit before tax and cash flows from operations. (14 marks)

Question Three

You are provided with the following extracts of financial statements of Success company limited

SUCCESS CO. LTD	
STATEMENT OF PROFIT OR LOSS	
FOR THE YEAR ENDING 30 JUNE 2023	
	Shs'm'
Revenue	124.90
Cost of sales (including depreciation at Shs. 21.4m)	(114.60)
Gross profit	10.30
Operating expenses	(0.50)
Profit for the period.	9.80

SUCCESS CO. LTD		
STATEMENT OF FINANCIAL POSITION		
AS AT 30 JUNE		
	2023	2022
	Shs'm'	Shs'm'
PPE	74.40	69.90
Equity and Liabilities		
Equity		
Shareholders' funds	66.70	62.20
Non-Current Liabilities	7.70	7.70
Total Equity and Liabilities	74.40	69.90

Required:

Determine the valuation of the equity and the enterprise after projected statement of cash flows.

(Total: 20 marks)

Question Four

- a) Explain what is meant by the term 'Earnings management' **(2 marks)**
- b) Potential lenders to a firm, whether short- or long-term, assess the likelihood that the firm will pay periodic interest and repay the principal amount lent.

Required:

Discuss the 5Cs in evaluation of credit risk of a borrower.

(6 marks)

- c) According to IASs 33 (*Earnings Per Share*), explain why the diluted earnings per share is more suitable for valuation purposes than the basic EPS. **(4 marks)**
- d) Jambo Ltd reported Shs. 1,000,000 in net income for the year ending 30 June 2023 on weighted average common shares outstanding of 400,000. Jambo Ltd has Shs. 4,000,000 face value of convertible bonds outstanding with an annual coupon rate of 10%. The bonds were issued on 1 July 2022 and can be converted into common shares at a conversion ratio of 50 shares per 1,000 of face value. Jambo Ltd has also had 500,000 outstanding warrants with an exercise price of Sh. 40 that were issued on 30 June 2022. The average share price during the year was Shs. 50, and the marginal tax rate is 30%.

Required: Compute the basic and the diluted earnings per share. (8 marks)
(Total: 20 marks)

Question Five

Quota co ltd is a public limited company which deals with the manufacture of specialized equipments in Joyland, in a foreign country. New tax laws have been enacted in the country and as a result of the new legislation, Quota co ltd Limited has start experiencing cash flow problems. The following is the financial information of subsidiaries of Quota co ltd for the year ending 30 June 2023.

Quota Industries Limited

	Alpha Ltd	Beta Ltd	Cytlon Ltd	Dyke Ltd
Working capital	40,000	20,000	60,000	400,000
Retained earnings	600,000	200,000	200,000	2,000,000
Profit before interest and tax	100,000	50,000	(300,000)	300,000
Total assets	2,000,000	1,000,000	8,000,000	18,000,000
Market value of equity	200,000	50,000	480,000	1,000,000
Total Liabilities	1,200,000	20,000	7,400,000	10,000,000
Revenue	2,000,000	1,000,000	8,000,000	18,000,000

Required:

- i) **Determine the Altman's Z Score for each subsidiary company and analyzing on the results obtained** **(10 marks)**
- ii) **Provide any other ratios that can be incorporated into the Altman's bankruptcy prediction model to make more meaningful.** **(4 marks)**
- iii) **List any six indicators of possible business failure** **(6 marks)**
- (Total: 20 marks)**