



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

Date: 4th August,2022

Time: 2 Hours

QUESTION ONE

- a) (i) Explain briefly the work performed by financial analysts **(2 marks)**
(ii) Discuss the importance of performing the financial analysis **(2 marks)**
- b) Distinguish between vertical and horizontal analysis using a well-illustrated examples. **(6 marks)**
- c) Zimara Limited, is a public company quoted on the Nairobi Securities Exchange (NSE) that would like to acquire (100% of) a suitable private company. It has obtained the following draft financial statements for one of the companies, Joyland Limited.

**JOYLAND COMPANY LIMITED
STATEMENT OF PROFIT OR LOSS
FOR THE YEAR ENDED 31 DECEMBER**

	2021	2022
	<u>Kshs'000'</u>	<u>Kshs'000'</u>
Revenue	4,561,025	5,682,465
Cost of sales	(2,247,592)	(2,308,508)
Gross profit	2,313,433	3,373,957
Expenses		
Administration and Establishment	(556,650)	(603,013)
Selling and distribution expenses	(221,496)	(271,531)
Profit from operations	1,535,287	2,499,412
Finance costs (interest)	(32,420)	(160,480)
Profit before tax	1,502,867	2,338,932
Income tax expense	(49,970)	(381,202)
Profit after tax	1,452,897	1,957,730

JOYLAND COMPANY LIMITED
STATEMENT OF FINANCIAL POSITION
AS AT 31 DECEMBER

	2021	2022
	Kshs'000'	Kshs'000'
Assets		
Non-current assets		
Property, Plant and Equipment	2,942,450	6,074,795
Intangible assets	123,450	456,825
	3,065,900	6,531,620
Current assets		
Inventories	193,150	346,342
Trade and other receivables	346,326	368,960
Cash and bank balances	60,524	849,258
	600,000	1,564,560
Total assets	3,665,900	8,096,180
Shareholders' funds and liabilities		
Capital and reserves		
Share capital	684,165	751,644
Reserves	1,578,678	3,154,432
	2,262,843	3,906,076
Non-current liabilities		
Deferred tax	120,220	240,230
Loan notes	600,000	2,500,000
	720,220	2,740,230
Current liabilities		
Trade and other payables	682,837	1,449,874
	682,837	1,449,874
Total shareholders' funds and liabilities	3,665,900	8,096,180

Additional information:

Joyland Limited has 400,000 ordinary shares outstanding and it operates on a 365 calendar-year. Assume all sales are made on credit.

Required:

i) *From the information provided, compute the following ratios for Joyland Limited for the years ended 31st December 2021 and 2022.*

- | | |
|--|------------------|
| <i>(1) Return on capital employed</i> | <i>(2 marks)</i> |
| <i>(2) Asset turnover</i> | <i>(2 marks)</i> |
| <i>(3) Inventory conversion period</i> | <i>(2 marks)</i> |
| <i>(4) Accounts receivable collection period</i> | <i>(2 marks)</i> |
| <i>(5) Current ratio</i> | <i>(2 marks)</i> |

- ii) *Based on the ratios you have computed in (i) above, assess the relative performance and financial position of Salama Limited for the two years ended 31st December 2021 and 2022 to inform the directors of Duke Limited in their acquisition decision.* (10 marks)

(Total: 30 marks)

QUESTION TWO

- a) Explain what is meant by the term ‘Earnings management’ (2 marks)
- b) Recording the substance of transactions, rather than their legal form, is an important principle in financial accounting. Abuse of this principle can lead to profit manipulation; non-recognition of assets and substantial debt not being recorded on the balance sheet.

Required:

Describe how the use of off-balance sheet financing can mislead users of financial statements (your answer should lay emphasis on earnings management). (6 marks)

- c) For the year ending 31st December 2020, Stimulus products limited had a net income of shs.2,500,000. The company declared and paid shs.200,000 of dividends on preferred stock. The company also had the following information about their ordinary shares.

Shares outstanding on 1 st January 2020	1,000,000
Shares issued on 1 st April 2020	200,000
Shares repurchased (treasury shares) on 1 st October 2020	(100,000)
Shares outstanding on 31 st December 2020	1,100,000

Required:

Determine

- i) *The company’s weighted average number of shares outstanding* (4 marks)
- ii) *The company’s basic EPS* (2 marks)
- d) Bobbyland Company limited reported net income of Kshs. 750,000 for the year ended 31st December 2020. The company had a weighted average of 690,000 ordinary shares. In addition, the company has only one potentially dilutive security: Kshs. 50,000 of 6% convertible bonds, convertible into a total of 10,000 ordinary shares. Assuming a tax rate of 30%

Required:

Determine the basic and diluted E.P.S.

(6 marks)

(Total: 20 marks)

QUESTION THREE

Mary is a financial analyst who is preparing to forecast cash flow for Parma limited as an input into her valuation model. She asked you to evaluate the historical cash flow statement of Parma limited which is presented here below. Parma limited presents its financial statement in conformity with IFRSs.

PARMA GROUP

STATEMENT OF CASHFLOWS

FOR THE YEAR ENDED 31ST DECEMBER

	2022		2021	
	Shs 'm'	Shs 'm'	Shs 'm'	Shs 'm'
Cash flows from operating activities				
Profit before tax		178		142
Adjustment:				

Profit from associates	(4)		(6)	
Finance cost	6		7	
Depreciation	64		53	
Impairment on goodwill	4		3	
Amortization of patents	3		3	
Amortization of trade licenses	23		18	
Loss on disposal of PPE	10		9	
	106	106	87	87
		284		230
Changes in working capital				
Increase/decrease in inventory	(96)		123	
Increase in receivables	(62)		(65)	
Decrease/Increase in payables	45		(158)	
	(113)	(113)	(100)	(100)
		171		130
Interest paid		(4)		(6)
Taxation paid		(26)		(42)
Cash flows from operating activities		141		82
Cash flows from investing activities				
Acquisition of PPE	(50)		(95)	
Acquisition of available for sale financial assets	(5)		(14)	
Acquisition of trade licenses	(100)		-	
Disposal of PPE	4		15	
Disposal of FV through p/l a/c	5		-	
Dividends from associates	1		4	
Cash flows used in investing activities	(145)	(145)	(90)	(90)
Cash flows from financing activities				
Issue of shares	90		45	
Issue of debentures	40		20	
Redemption of bank loan	(8)		25	
Dividends paid: H ltd	(80)		(60)	
: N.C.I.	(1)		(5)	
Cash flows from financing activities	41	41	25	25
Cash and Cash equivalent during the year		37		17
Cash and Cash equivalent bal b/f		(23)		(40)
Cash and Cash equivalent bal c/f		14		(23)

Required:

- a) *What are the major sources of cash for Parma limited?* (4 marks)
 - b) *What is the relationship between the net profit before tax and cash flow from operating activities?* (6 marks)
 - c) *Is the cash flow from operating activities sufficient to cover capital expenditures?* (2 marks)
 - d) *Evaluate the liquidity position of Parma limited and in particular the going concern of the entity.* (8 marks)
- (Total: 20 marks)**

QUESTION FOUR

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 2022	
	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		
	2022	2021
	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 FIVE

- a) The following financial information of Maryland company limited is presented to financial analyst, which he intends to use the information in making economic decision.

Elements of the Financial Statements	
For the year ending 30 June 2022	
	Kshs'm'
Revenues	12,500
Profit before interest and tax	1050
Finance costs	250
Profit before taxes	800
Income tax expense	250
Profit after tax	550
Total assets	7,500
Total non-current liabilities	4,000
Equity	3,500
Total equity and liabilities	7,500

Required:

Using the financial information above, perform the dupont analysis for Maryland co ltd and explain the importance of dupont analysis. (8 marks)

- b) 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 31 March 2020.

Quota Industries Limited

	Alpha Ltd	Beta Ltd	Gamma Ltd
Working capital	400,000	200,000	600,000
Retained earnings	1,465,000	1,840,000	2,400,000
Profit before interest and tax	840,000	246,000	120,000
Total assets	4,864,500	2,564,250	8,464,800
Market value of equity	1,846,000	540,000	960,000
Liabilities	2,400,000	800,000	6,000,000
Revenue	4,500,000	3,000,000	14,000,000

Required:

- (i) ***Determine the Altman's Z score for each of the subsidiary company (6 marks)***
- (ii) ***List down any six indicators of business failure (6 marks)***

(Total: 20 marks)