



STRATHMORE INSTITUTE OF MATHEMATICAL SCIENCES
BBS FINANCIAL ECONOMICS & FINANCIAL ENGINEERING
END OF SEMESTER EXAMINATION
BSF 3213 FINANCIAL ANALYSIS AND MODELING

DATE: 15th December 2022

Time: 2 Hours

Instructions

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

QUESTION ONE [30 marks]

- a) Discuss five qualitative factors considered when evaluating financial performance of a company. (10 marks)
- b) Galana Corporation had an average receivables collection period of 19 days in 2020. The company has stated that it wants to decrease its collection period in 2021 to match the industry average of 15 days. Credit sales in 2020 were 300 million, and analysts expect credit sales to increase to 400 million in 2021.

Required

Calculate the change in the average accounts receivable balance from 2020 to 2021 that must occur to achieve the company's goal of decreasing the collection period (4 marks)

- c) An investment company is considering buying shares in Lamu Ltd. The company is expected to generate revenue of Sh. 200,000 next year. Revenue will grow at 10% annually until year three. Net profit margins of 30% is considered reasonable. Trade receivables and trade payables are expected to reduce each year by Sh. 40,000 and Sh. 30,000 respectively. Each year, the company will buy equipment estimated at 7% of that year's revenue. Depreciation is approximated at 5% of revenue. Long-term growth rate of the company is 3% while its stock's beta is 1.5. The market share index return is 16% while government bonds have 10% yield.

Required

Forecast free cash flows for the next three years and estimate the company's share price assuming it has 100,000 shares. Suppose each share is currently trading at Sh. 6 in the market, what will be your investment recommendation? (16 marks)

QUESTION TWO [20 marks]

Provided below is selected information from the 2019 and 2020 financial statements of a certain company:

Balance Sheet (Extracts)		
	As of December 31,	
	2020	2019
Cash	21,000	35,000
Marketable securities (current)	27,000	22,000
Accounts receivable (net)	60,000	98,000
Inventory	105,000	142,000
Prepaid expenses	5,000	3,000
Land and building (net)	247,000	315,000
Accounts payable	57,000	75,000
Accrued expenses	10,000	14,000
Notes payable (short-term)	8,000	4,000
Bonds payable (due in three years)	52,000	66,000
Income Statements (Extracts)		
	As of December 31,	
	2020	2019
Cash sales	750,000	675,000
Credit sales (percent of cash sales)	82%	85%
Cost of goods sold (percent of total sales)	60%	58%
Net income	30,000	38,000
Interest expense	6,000	9,000
Income tax expense	6,000	7,000
Others		
No. of shares	10,000	10,000
Share price	21	24

Required

Compute 10 ratios and evaluate the company's liquidity, profitability, and solvency over the two years. (20 marks)

QUESTION THREE [20 marks]

Assume that a firm has owners' equity of sh. 100,000. The ratios for the firm are:

Current debt to total debt	0.4
Total debt to owners' equity	0.6
Fixed assets to owners' equity	0.6
Total assets turnover	2 times
Receivables turnover	8 times
Days in a year	360

Required

Complete the statement of financial position given below.

(20 marks)

	Amount
Assets:	
Cash	
Receivables	
Total current assets	
Fixed assets	
Total Assets	
Liabilities	
Current debt	
Long-term debt	
Total debt	
Owners' equity	
Total liabilities and equity	

QUESTION FOUR [20 marks]

- a) Explain the different balance sheet measurement bases and implications on financial analysis for equity investments (10 marks)
- b) Investors may find MD&A useful in their analysis.

Required

Explain the contents of MD&A and its usefulness in financial analysis (10 marks)

QUESTION FIVE [20 marks]

- a) The equity amount in the balance sheet should not be viewed as a measure of either the market or intrinsic value of a company's equity. Explain the reasons. (10 marks)
- b) Investors rely on the published financial statements, which may be biased, as the primary source of information for equity and debt analysis. Distinguish between Aggressive and Conservative accounting citing examples and implications on financial analysis. (10 marks)