



**UNIVERSITY EXAMINATIONS**  
**SPECIAL/SUPPLEMENTARY EXAM**  
**2021/2022 ACADEMIC YEAR**  
**SECOND YEAR FIRST SEMESTER**  
**FOR THE DEGREE OF MASTER OF BUSINESS**  
**ADMINISTRATION**

**COURSE CODE: MBA 836E**

**COURSE TITLE: INVESTMENT AND PORTFOLIO MANAGEMENT**

**DATE: 17<sup>TH</sup> JANUARY, 2022 TIME: 8.00AM -11.00AM**

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**INSTRUCTIONS TO CANDIDATES**

**Answer Question ONE (compulsory) and ANY OTHER THREE Questions**

## SECTION A

### QUESTION ONE

- a) Describe briefly the major theories which explain the term structure of interest rates. (10 marks)
- b) Stock market analysts sometimes use fundamental analysis and sometimes technical analysis to forecast future prices of shares. What are fundamental analysis and technical analysis? (10marks)
- c) Discuss the most common problems observed in analyzing investments of individual investors (8 marks)
- d) Identify the fundamental distinction between a futures contract and an option on a futures contract and explain the difference in the manner that futures and options modify portfolio risk.(12 marks)

## SECTION B

### QUESTION TWO

Three years ago, Mrs Rehema Waziri was retrenched from the Civil Service. She invested substantially all her terminal benefits in the shares of ABC Ltd. a company quoted on the stock exchange. The dividend payments from this investment makes up a significant portion of Mrs. Waziri's income. She was alarmed when ABC Ltd, dropped its year 2001 dividend to Sh.1.25 per share from Sh.1.75 per share which it had paid in the previous two years. MrsWaziri has approached you for advice and you have gathered the information given below regarding the financial condition of ABC Ltd. and the finance sector as a whole.

	1999 Sh'000'	2000 Sh'000'	2001 Sh'000'
Cash	15,250	14,400	8,000
Accounts receivable	80,320	87,800	134,400
Inventory	<u>98,600</u>	<u>158,800</u>	<u>254,000</u>
Total current assets	194,170	261,000	396,400
Land and buildings	25,230	27,600	25,000
Machinery	33,800	36,400	30,600
Other fixed assets	<u>14,920</u>	<u>18,200</u>	<u>16,400</u>
Total assets	<u>268,120</u>	<u>343,200</u>	<u>468,400</u>
Accounts and notes payable	34,220	73,760	135,848
Accruals	<u>15,700</u>	<u>34,000</u>	<u>67,000</u>
Total current liabilities	49,920	107,760	202,848
Long term debt	60,850	60,858	81,720
Ordinary share capital	115,000	115,000	115,000
Retained earnings.	<u>42,350</u>	<u>59,582</u>	<u>68,832</u>
	<u>268,120</u>	<u>343,200</u>	<u>468,400</u>

#### ABC Ltd. Income Statement for the year ending 31 October

	1999 Sh'000'	2000 Sh'000'	2001 Sh'000'
Sales (all on credit)	827,000	858,000	890,000
Cost of sales	<u>(661,600)</u>	<u>(710,000)</u>	<u>(712,000)</u>
Gross profit	165,400	148,000	178,000

General administrative and selling expenses	(63,600)	(47,264)	(51,200)
Other operating expenses	<u>(25,400)</u>	<u>(31,800)</u>	<u>(38,200)</u>
Earnings before interest and tax (EBIT)	76,400	68,936	88,600
Interest expense	<u>(12,800)</u>	<u>(26,800)</u>	<u>(63,600)</u>
Net income before taxes	63,600	42,136	25,000
Taxes	<u>(25,400)</u>	<u>(16,854)</u>	<u>(10,000)</u>
Net income	<u>38,200</u>	<u>25,282</u>	<u>15,009</u>
Number of shares issued	4,600,000	4,600,000	4,600,000
Per share data:			
Earnings per share (EPS)	Sh.8.30	Sh.5.50	Sh.3.26
Dividend per share	Sh.1.75	Sh.1.75	Sh.1.25
Market price (average)	Sh.48.90	Sh.25.50	Sh.13.25

Industry Financial ratios  
(2001)

Quick ratio	1.0
Current ratio	2.7
Inventory turnover	7 times
Average collection period	32 days
Fixed asset turnover	13.0 times
Total assets turnover	2.6 times
Net income to net worth	18%
Net profit margin on sales	3.5%
Price-Earnings (P/E) ratio	6 times
Debt/Equity ratio	50%

**Notes**

1. Industry ratios have been roughly constant for the past four years.
2. Inventory turnover, total assets turnover and fixed assets turnover are based on the year-end balance sheet figures.

**Required**

- a) The financial ratios for ABC Ltd. for the past three years corresponding to industry ratios given above. (10 marks)
- b) Arrange the ratios calculated in (a) above in columnar form and summarise the strengths and weaknesses revealed by these ratios based on:
  - i) Trends in the firm's ratios. (6 marks)
  - ii) Comparison with industry averages. (6 marks)
 (The summary should focus on the liquidity, profitability and turnover ratios).

**(Total: 20 marks)**

**QUESTION THREE**

- a) List and explain five factors that should be taken into account by a businessman in making the choice between financing by short-term and long-term sources. (10 marks)
- b) Describe the factors that affect the value of a call option (10 Marks)

## QUESTION FOUR

P. Muli was recently appointed to the post of investment manager of Masada Ltd. a quoted company. The company has raised Sh.8,000,000 through a rights issue. P. Muli has the task of evaluating two mutually exclusive projects with unequal economic lives. Project X has 7 years and Project Y has 4 years of economic life. Both projects are expected to have zero salvage value. Their expected cash flows are as follows:

Project Year	X Cash flows (Sh.)	Y Cash flows (Sh.)
1	2,000,000	4,000,000
2	2,200,000	3,000,000
3	2,080,000	4,800,000
4	2,240,000	800,000
5	2,760,000	-
6	3,200,000	-
7	3,600,000	-

The amount raised would be used to finance either of the projects. The company expects to pay a dividend per share of Sh.6.50 in one year's time. The current market price per share is Sh.50. Masada Ltd. expects the future earnings to grow by 7% per annum due to the undertaking of either of the projects. Masada Ltd. has no debt capital in its capital structure.

### Required

- a) The cost of equity of the firm. (12 marks)
- b) The net present value of each project. (8 marks)

## QUESTION FIVE

a) Deni Limited wishes to raise funds for expansion using corporate bonds.

- i) What is a corporate bond? (2 marks)
- ii) State and explain two advantages in the use of corporate bonds. (2 marks)
- iii) What costs are associated with the issue of corporate bonds? (4 marks)

b) Deni Limited has issued Sh.10,000, 16% bonds redeemable at par on 1 June 2009. The bonds are dated 1 May 1999. The bonds may however be redeemed at par on 1 June 2001. Upon issue the bonds will be traded on the Stock Exchange. The market rate of interest on 1 May was 14%.

### Required

- i) The issue price of the bond. (4 marks)
- ii) The expected market price of the bond as at 1 June 2001. The market rate of interest is expected to be 10%. (4 marks)
- iii) Should Deni Limited redeem the bond on 1 June 2001? Why? (4 marks)