



**AFRICA
UNIVERSITY**
A United Methodist-Related Institution

**COLLEGE OF BUSINESS, PEACE, LEADERSHIP AND
GOVERNANCE**

MFN 501 - FINANCIAL MANAGEMENT

END OF SECOND SEMESTER EXAMINATIONS

NOVEMBER/ DECEMBER 2018

Ms. N E CHIRIMA

DURATION: 3 (Three)HRS

INSTRUCTIONS

Follow the instructions indicated at the beginning of each section.

Answers are to be presented clearly and neatly.

Answer each question on a new page.

Question 1 (20 possible marks)

Part 1

You wish to purchase a small studio apartment in Port Elizabeth which is situated in a street lined avenue. The purchase price, with costs, is \$335 000 and you are able to obtain a 100% mortgage loan at an interest rate of 6%, interest compounded annually. The term of the loan is 20 years. Assume that property values are expected to rise at a rate of 9% per year (0, 17% per month). You will be able to rent out the apartment after costs at a rate of \$2 000 per month for the first year. Interest and rent are payable at the end of each year.

- a) What is the expected value of the apartment in 20 years' time? **2 marks**
- b) What is the annual mortgage loan installment? **2 marks**
- c) What is the net amount you have to pay in each month? **1 mark**

Part 2

Following extensive analysis and forecasting, you have established that an investment in Mills Limited offers the following probability distribution of returns, given different states of the economy:

State of the economy	Probability of state of economy	Conditional return	
		Asset 1	Asset 2
Super - boom	10%	30%	7%
Boom	20%	25%	3%
Normal	45%	20%	-6%(negative)
Recession	15%	10%	-10% (negative)
Severe Recession	10%	-5% (negative)	-12% (negative)

Required:

- a) Compute the Expected Return for Asset1 and Asset 2 **3 marks**
- b) Compute the risk, using standard deviation, for asset 1 and asset 2 **7 marks**
- c) Compute the risk of a portfolio comprising of asset 1 and asset 2 **2 mark**
- d) As a manager, would you recommend your company to invest in ether asset 1, asset 2 or both? Explain. **3 marks**

Question 2 (20 possible marks)

Kuda Ltd has an outstanding ordinary share capital of \$5 million in shares of \$100 each. They are currently trading at \$204 each. It also has 9% bonds par value \$2, 4 million. The company made an operating income of \$972 000 in the year just ended.

Required:

- Compute the company's current level of equity gearing and its interest cover. **3 marks**
- The company is to raise \$2, 4 million to finance a new investment. This will be made through a rights issue of \$153, 60 per share. Compute and interpret the theoretical ex – price. **3 marks**
- Assume the \$2, 4 million was raised by way of a 15% loan repayable over 5 years in installments paid at the beginning of the year. Determine (to the nearest thousand) the annual installment to be paid and amortize the loan. **5 marks**
- Outline the advantages of listing on the stock exchange **6 marks**
- Describe the main players on the stock exchange. **3 marks**

Question 3 (20 possible marks)

The following information is available for Munya Ltd:

Current price per share	\$2. 00
Current year's dividend per share	\$0. 10
Expected Average growth rate of dividends	7%
Beta Coefficient for Munya Ltd	0.80
In addition the following information has been established:	
Expected rate of return on risk free securities	8%
Expected return on the market portfolio	12%

Required:

- Explain what is meant by “cost of capital” for a particular company. **3 marks**
- Calculate the cost of equity for Munya Ltd from the data given, based on both the Dividend Growth Model and the Capital Asset Pricing Model. **4 marks**
- State, for each model separately, the main simplifying assumptions made and express your opinion about whether, in view of these assumptions, the models yield results that can be used in practice. **8 marks**
- Why are the concepts of risk and return important in making financing decision? **5 marks**

Question 4 (25 possible marks)

JR Supplies Ltd is considering investing in a new machine at a cost of \$360 000. This will replace a machine purchased 6 years ago for \$720 000. The current market value of the old machine is \$220 000. The capacity and production level of the new machine will be the same as the old machine. Volumes and selling prices are not expected to change. The estimated annual operating costs for each machine are as follows:

	Old Machine	New Machine
	\$	\$

Wages and supervision	184 000	75 000
Materials, supplies, electricity and water	80 000	50 000
Insurance and general costs	36 000	45 000
	300 000	170 000

The expected remaining economic life of the old machine is 4 years and this also reflects the estimated economic life of the new machine. The residual value of both machines is estimated at \$100 000 in four years time. The firm's required rate of return is 12% and the tax rate is 28%. The old machine has been fully depreciated for tax purposes. The new machine will be depreciated on a straight line basis over its four year useful life.

Required:

- Indicate whether the company should invest in the machine or retain the old machine. **10 marks**
- Explain why the use of cash flows is preferred to the use of accounting profits in making investment decisions. **5 marks**
- Compare and contrast the net present value and the internal rate of return investment appraisal techniques. When the two techniques give contrasting investment rankings, which method would you recommend? Why? **10 marks**

Question 5 (15 possible marks)

Select one of the following questions:

Part 1

ABC Ltd recently listed on the Zimbabwe Stock Exchange. The accountant has reported for the year ended 30 September 2018 that company's position and performance has maintained a steady growth over the past ten years. The company has recently adopted a growth strategy and management is deliberating on whether to finance its growth initiatives for the year using debt or a rights issue.

Motivating your answer, advise ABC Ltd's management on the financing decision to make. **15 marks**

Part 2

Mrs Ruey is a 65 year old who was employed by the Ministry of Education as a primary school teacher for the past 40 years (in Zimbabwe). She retired in June this year and will be receiving her pension before December 2017. Her niece, Kuda, who is a young Finance student has advised to buy shares on the Zimbabwe Stock Exchange and is in the process of convincing her that there are high returns and risk is moderate.

Required:

- Comment on the advice given Mrs Ruey by her niece Kuda. **1 mark**
- In your opinion, what would be best investment for Mrs. Ruey and explain why? **2 marks**
- Company J and Company L are both listed on the Zimbabwe Stock exchange. Company J's dividend per share has been growing steadily over the past 10 years while its Earnings

per Share has remained constant. On the other hand, Company L's Earnings per Share have been growing steadily while its Dividend per Share has been declining. Mr. B, a Danish investor who is one of the Facebook Business Page (on which you are a member) participants is asking for advice on which of the two companies to invest in. Advise Mr. B on what to consider when making his decision. **12 marks**

Part 3

Two multi-national companies have recently published their objectives:

Company 1

“Our company objective is to focus on the maximization of global shareholder wealth. We will use sophisticated measures to maximize cash flows in each country we operate. We will also extensively outsource internationally in order to increase profitability”

Company 2

“Our company's primary objectives are to enhance our customers' satisfaction and to grow our business. We aim to supply our customers with the highest quality products and provide outstanding levels of sales and delivery service, incapable of being matched by our competitors, and thereby increasing our market share.”

Required:

- a) Discuss and contrast these objectives. **7 marks**
- b) Comment upon any possible ethical implications of the objectives. **8 marks**

End of Paper

FORMULA SHEET

Lump Sum

$$FV = PV (1 + r)^{NM}$$

Ordinary Annuity

$$FVA = I [(1 + r)^N - 1] / r$$

Annuity Due

$$FVA = \{I [(1 + r)^{N+1} - 1] / r\} - I$$

Lump Sum

$$PV = FV / (1 + r)^N$$

Ordinary Annuity

$$PVA = I [(1 - (1 + r)^{-N})] / r$$

Annuity Due

$$FVA = \{I [1 - (1 + r)^{-N+1}] / r\} + I$$

Value of a Right

$$\text{Current Market Price} - \text{Expected Market Price}$$

Earnings Per Share

$$EAIT / \text{Number of Ord Shares}$$

Interest Cover

$$EBIT / \text{Interest}$$

Gearing Ratio

$$\text{Debt} / \text{Equity}$$

Cost of Debt

$$R (1 - T) / P_0$$

Cost of Debt

$$[R(1 - T) + 1/M (FCV - P_0)] / [\frac{1}{2} (FCV + P_0)]$$

Cost of Preference Shares

$$D / P_0$$

Cost of Equity

$$(D_1 / P_0) + g$$

Cost of Equity

$$R^f + (R^M - R^f)\beta$$

Co - Variance

$$SD_{ur} / ER$$

Coefficient of Variation

$$SD_{ur} / SD_u \times SD_r$$