



# MANICALAND STATE UNIVERSITY OF APPLIED SCIENCES

## FACULTY OF AGRIBUSINESS AND COMMERCE

DEPARTMENT: ACCOUNTING

MODULE: FINANCIAL MANAGEMENT

CODE: HBM414

SESSIONAL EXAMINATIONS

SEPT/OCT 2021

DURATION: 3 HOURS

EXAMINER: MR T MACHAKA

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### INSTRUCTIONS

1. Answer **ALL five** questions
2. Start a new question on a fresh page
3. Total marks 100

**Additional material(s):** Calculator, Financial Management  
formulae Tables, Future value tables

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## QUESTION 1

- a. Sigma Limited has an annual demand of 200 000 units of a product which it purchases at \$30 each. At present the firm makes 5 orders of 40 000 units per order at a cost of \$120 per order, including freight handling and all paperwork. The firm has also estimated that it costs on average \$18 to keep an item of inventory for a year. The company is reviewing its inventory policy. Calculate the economic order quantity (EOQ). (4 marks)
- b. Briefly outline the “five Cs of credit” and discuss how they can be used to assess a credit applicant’s creditworthiness. (5 marks)
- c. Outline the credit collection policy and explain the major sources of information about a credit applicant. (7 marks)
- d. What are the motives for holding cash and cash equivalents? (4 marks)

## QUESTION 2

- a. Distinguish between hard and soft capital rationing, explaining why a company may deliberately choose to restrict its capital expenditure. (4 marks)
- b. Q ltd has estimated the after tax cashflows for possible projects as follows. All the projects require use of new technology and have been patented so that the company protects its rights in that area.

Year	0	1	2	3	4	5
Project	\$000	\$000	\$000	\$000	\$000	\$000
A	(500)	200	200	200	200	200
B	(400)	100	100	100	100	500
C	(150)	40	50	60	70	100
D	(1000)	500	400	300	200	100

- I) Compute the payback period and net present value of each project (use a 20% cost of capital in determining the Net present value. (15 marks)
- II) Explain which project should be undertaken if the projects are mutually exclusive and there was no capital rationing. (2 marks)
- III) Explain any three draw backs of payback period to appraise a project. (3marks)

### QUESTION 3

Abridged data for Eat With Me Pvt Ltd, a fast food chain stores, and Drive In Style Pvt Ltd, motor manufacturers, is given below

	<b>Eat With Me</b>	<b>Drive In Style</b>
	<b>\$ Million</b>	<b>\$ Million</b>
Sales	500	125
Gross	100	35
Net operating profit	20	20
Fixed assets	50	40
Stock	25	40
Debtors	-	25
Bank	25	10
Current liabilities	50	30
Loans	-	20

- a. Calculate the following for each company, Eat With Me and Drive In Style
- i) Current ratio (1 marks)
- ii) Acid test ratio (2 marks)
- iii) Stock turnover (2 marks)

- iv) Gross profit percentage (2 marks)
  - v) Operating profit margin (2 marks)
  - vi) Return on total assets (2 marks)
  - vii) Return on equity (2 mark)
- b. Comment on the performance of the two companies based on the calculations above. (7marks)

**QUESTION 4 (20 Marks)**

- a. Alpha Limited invests \$800. The investment pays 6% interest compounded annually. Calculate the value of the investment at end of 5years. (3marks)
- b. Alpha Limited wishes to invest \$1 000 at the end of each of the next 5 years. The investment has an annual interest rate of 7%. Calculate the future value of the ordinary annuity. (3marks)
- c. Sigma Limited wishes to invest \$1 000 at the beginning of the year for each of the next 5 years. The investment has an annual interest rate of 7%. Calculate the future value of the annuity due. (3marks)
- d. Delta Limited will receive \$1 700 from an investment 8 years from now. The required return on similar investments is 8%. Calculate the present value of the amount to be received. (3marks)
- e. Alpha Limited wants to determine the most it should pay to purchase a particular ordinary annuity. The annuity consists of cash flows of \$700 at the end of each year for 5 years. The firm requires the annuity to provide a minimum return of

8%. Calculate the purchase price of the ordinary annuity. (3marks)

f. Beta Limited wants to determine the most it should pay to purchase a particular annuity due. The annuity consists of cash flows of \$700 at the beginning of each year for 5 years. The firm requires the annuity to provide a minimum return of 8%. Calculate the highest purchase price of the annuity due. (3marks)

g. The Government wants to endow (i.e. sponsor through an endowment policy) a chair in Accounting in the Faculty of Agribusiness and commerce at the Manicaland State University. The university indicated that it requires \$200 000 per year to support the chair, and the endowment would earn 10% per year. Calculate the amount the church must give to the university to fund the chair. (2 marks)

### **QUESTION 5**

Discuss any three forms of business Organisations that you know. (20 marks)

**END OF EXAM**

**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**

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

**Perpetuities**

$$PV = \text{Cash flow} / r$$

**Operating Leverage**

$$\text{Contribution} / \text{EBIT}$$

**Financial Leverage**

$$\text{EBIT} / (\text{EBIT} - I)$$

**Combined Leverage**

$$\text{Contribution} / (\text{EBIT} - I)$$

**Spread of cash limits**

$$\frac{3}{4}(cy^2/i)$$

**Value of a Right**

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

**Earnings Per Share**

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

**Interest Cover**

$$\text{EBIT} / \text{Interest}$$

**Gearing Ratio**

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

**Cost of Debt**

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

**Cost of Debt**

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

**Cost of Preference Shares**

$$D / P_o$$

**Cost of Equity**

$$(D_1 / P_o) + g$$

**Cost of Equity**

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

**Current Ratio**

$$\text{Current Assets} / \text{Current Liabilities}$$

**Quick Ratio**

$$(\text{Current Assets} - \text{Stock}) / \text{Current Liabilities}$$

**Stock Holding Period**

$$(\text{Average Stock} / \text{Cost of Sales}) \times 365 \text{ days}$$

**Debtors Collection Period**

$$(\text{Average Debtors} / \text{Credit Sales}) \times 365 \text{ days}$$

**Operating Cycle**

$$\text{Stock Holding Period} + \text{Debtors Collection Period}$$

**Creditors Payment Period**

$$(\text{Average Creditors} / \text{Credit Purchases}) \times 365 \text{ days}$$

**Cash Conversion Cycle**

$$\text{Operating Cycle} - \text{Creditors Payment Period}$$

**Economic Order Quantity**

$$\sqrt{(2RC/h)}$$

**Co – Variance**

$$SD/ER$$

**Coefficient of Variation**

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

**Accounting Rate of Return**

$$\text{Avg Profit} / \text{Avg Investment}$$

**Accounting Rate of Return**

$$\text{Avg Profit} / \text{Initial Investment}$$