



**NAMIBIA UNIVERSITY
OF SCIENCE AND TECHNOLOGY**

**FACULTY OF HEALTH, NATURAL RESOURCES AND APPLIED SCIENCES
DEPARTMENT OF AGRICULTURE AND NATURAL RESOURCES SCIENCES**

QUALIFICATION : BACHELOR OF NATURAL RESOURCES MANAGEMENT (NATURE CONSERVATION)	
QUALIFICATION CODE: 07BNRS	LEVEL: 6
COURSE CODE: FMG620S	COURSE NAME: FINANCIAL MANAGEMENT FOR NATURE CONSERVATION
DATE: JANUARY 2023	
DURATION: 3 HOURS	MARKS: 100

FIRST OPPORTUNITY EXAMINATION QUESTION PAPER	
EXAMINER(S)	M LUBINDA
MODERATOR:	S KALUNDU

INSTRUCTIONS
1. Answer ALL the questions. 2. Write clearly and neatly. 3. Number the answers clearly.

PERMISSIBLE MATERIALS

1. Examination question paper
2. Answering book
3. Calculator

THIS QUESTION PAPER CONSISTS OF 5 PAGES (Excluding this front page)

QUESTION ONE**[MARKS]**

- a. Briefly describe three types of budgets that are used in financial planning. (6)
- b. Consider a tractor whose purchasing cost, terminal value, and useful life are N\$250,000, N\$50,000, and 4 years. Using the straight-line depreciation method, prepare a depreciation schedule for the tractor. (5)
- c. Suppose members of a conservancy provides you with the following information about their butternut enterprise.

item	Value
Production (in tons per hectare)	40
Price (in N\$ per ton)	6,250
Direct cost (N\$ per ton)	3,000
Overhead costs (N\$ per ton)	1,500

Use the information to answer the questions below.

- i. Determine the net return (profit) per hectare. (4)
- ii. Calculate the break-even price and break-even quantity. (4)
- iii. Prepare and interpret an enterprise budget whose base unit per bag. Assume a bag of butternut weighs 10 kgs. (6)

Total marks **[25]**

QUESTION TWO

[MARKS]

- a. Briefly describe the cash flow statement. (5)
- b. Consider the following comparative balance sheets for Amos Poultry cc. for the financial years ended 31 December 2019 and 2020, respectively. Use the information to prepare and interpret a cash flow statement for the period ended 31 December 2020.

Comparative Balance Sheets for Amos Poultry cc.

	December 31 (N\$)	
	2020	2019
Assets		
Cash	22 200	24 000
Accounts receivable	34 100	42 200
Inventories	82 000	50 000
Total current assets	138 300	116 200
Gross fixed assets	415 000	400 000
Less: Accumulated depreciation	145 000	115 000
Net fixed assets	270 000	285 000
Total assets	408 300	401 200
Liabilities and Equity		
Accounts payable	57 000	49 000
Notes payable	13 000	16 000
Accruals	5 000	6 000
Total current liabilities	75 000	71 000
Long-term debt	150 000	160 000
Common stock	110 200	120 000
Retained earnings	73 100	50 200
Total Equity	183 300	170 200
Total liabilities and Equity	408 300	401 200

(20)

TOTAL MARKS

[25]

QUESTION THREE

[MARKS]

- a. Briefly discuss the four key areas of financial performance evaluation. (8)
- b. Consider the following comparative balance sheets and income statement (selected accounts) for Amos Poultry cc. for the financial years ended 31 December 2019 and 2020, respectively. Use the information to answer the questions below.

Comparative Balance Sheets for Amos Poultry cc.		
	December 31 (N\$)	
	2020	2019
Assets		
Cash	22 200	24 000
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Total assets	408 300	401 200
Liabilities and Equity		
Accounts payable	57 000	49 000
Notes payable	13 000	16 000
Accruals	5 000	6 000
Total current liabilities	75 000	71 000
Long-term debt	150 000	160 000
Common stock	110 200	120 000
Retained earnings	73 100	50 200
Total Equity	183 300	170 200
Total liabilities and Equity	408 300	401 200
Comparative Balance Sheets for Amos Poultry cc.		
	December 31 (N\$)	
	2020	2019
Sales	960,000	890,000
Cost of goods sold	560,000	490,000
Operating profit	300,000	200,000
Net Profit	120,000	160,000

- i. Prepare a common-sized balance sheet for the accounting period ended 31 December 2020. (5)
- ii. Based solely on the information provided, conduct a complete ratio analysis to identify areas where Amos Poultry cc. needs to improve and areas where Amos Poultry performed well. (*Hint: use 2019 as a benchmark; and use accounting ratios that can be computed from the information provided.*) (12)

TOTAL MARKS

[25]

QUESTION FOUR	[MARKS]
a. What is capital budgeting? Briefly explain the capital budgeting techniques.	(5)
b. A farmer wishes to accumulate N\$100,000 by the end of 4 years by making equal annual end-of-year deposit over the next 4 years. If the farmer can earn 10% on her investment, how much must she deposit at the end of each year to meet this goal?	(4)
c. Amortize a loan with an original principal amount of N\$500,000; annual interest of 10%; and maturity period of 4 years. Your amortization schedule should show the interest and principal components of each of the five annual loan payments.	(5)
d. An agribusiness SME is considering two mutually exclusive investments with a four-year maturity period. Each investment requires an initial cost of N\$500,000. The first investment is expected to generate N\$ 200,000 per year in net cash inflows; while the second investment's expected net cash flows are N\$190,000, N\$160,000, N\$250,000, and N\$200,000 from the first year through the fourth year, respectively. Use this information to answer the questions below.	
i. Estimate the Payback Period for each investment. Rank the investments based on their Payback Period. Explain the rationale that informed your ranking of the investments.	(4)
ii. Assuming a discount rate of 10%, calculate the NPV for each investment. Rank the investments based on the calculated NPVs. Explain the rationale that informed your ranking of the investments.	(7)
TOTAL MARKS	[25]

THE END

Financial Ratios

$$\text{Current Ratio} = \frac{\text{Current Assets}}{\text{Current Liabilities}}$$

$$\text{Inventory turn} = \frac{\text{Cost of goods sold}}{\text{Inventory}}$$

$$\text{Gross Profit Margin} = \frac{\text{Gross Profit}}{\text{Total Sales}}$$

$$\text{Average Payment Period} = \frac{\text{Accounts payable}}{\text{Average purchases per day}}$$

$$\text{Times interest earned ratio} = \frac{\text{Net profit before interest and tax}}{\text{Interest expense}}$$

$$\text{Operating Profit Margin} = \frac{\text{Operating Profit}}{\text{Sales}}$$

$$\text{Return on Equity} = \frac{\text{Net Profit after taxes}}{\text{Total Equity}}$$

$$\text{Asset turn} = \frac{\text{Sales}}{\text{Total Assets}}$$

$$\text{Quick Ratio} = \frac{\text{Current Assets} - \text{Inventory}}{\text{Current Liabilities}}$$

$$\text{Average Collection Period} = \frac{\text{Accounts receivable}}{\text{Average Sales per day}}$$

$$\text{Debt ratio} = \frac{\text{Total liabilities}}{\text{Total Assets}}$$

$$\text{Asset turn} = \frac{\text{Sales}}{\text{Total Assets}}$$

$$\text{Net Profit Margin} = \frac{\text{Operating Profit}}{\text{Sales}}$$

$$\text{Return on Assets} = \frac{\text{Net Profit after taxes}}{\text{Total Assets}}$$

Time value formulas

$$PV = FV(1 + i)^{-n}$$

$$PV = CF \times \left[\frac{1 - (1+i)^{-n}}{i} \right]$$

$$PV = \frac{P_1}{(1+i)^1} + \frac{P_2}{(1+i)^2} + \frac{P_3}{(1+i)^3} + \dots + \frac{P_n}{(1+i)^n}$$

$$FV = PV(1 + i)^n$$

$$FV = CF \times \left[\frac{(1+i)^n - 1}{i} \right]$$

$$FV = P_1(1 + i)^{n-1} + P_2(1 + i)^{n-2} + \dots + P_n$$

Other Formulas

$$\text{Annual Depreciation} = \frac{(\text{cost} - \text{salvage value})}{\text{useful life}}$$

$$\text{Annual Depreciation} = \frac{R}{n} \times BV$$

Where R is decline balance rate; n is useful life; and BV is the book value at the beginning of the year.

$$\text{Break-even quantity} = \frac{\text{Total cost}}{\text{Expected output price}}$$

$$\text{Sum-of-the-year digits} = (\text{cost} - \text{salvage value}) \times \frac{RL}{\text{SOYD}}$$

Where RL is the remaining life and $\text{SOYD} = \frac{n(n+1)}{2}$.

$$\text{Break-even price} = \frac{\text{Total cost}}{\text{Expected Output}}$$