## חAMIBIA UПIVERSITY

## OF SCIEПCE AПD TECHПOLOGY

FACULTY OF NATURAL RESOURCE AND SPATIAL SCIENCES
DEPARTMENT OF AGRICULTURE \& NATURAL RESOURCES SCIENCES

| QUALIFICATION: BACHELOR OF AGRICULTURE |  |
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| QUALIFICATION CODE: 27BAGR | LEVEL: 7 |
| COURSE CODE: FMA 720S | COURSE NAME: FINANCIAL MANAGEMENT (AGRICULTURE) |
| DATE: November 2019 | PAPER: THEORY |
| DURATION: 3 Hours | MARKS: 100 |


| FIRST OPPORTUNITY EXAMINATION QUESTION PAPER |  |
| :--- | :---: |
| EXAMINER(S) | M. Lubinda |
| MODERATOR: | S. Kalundu |

## INSTRUCTIONS

1. Answer ALL four (4) questions.
2. Read all the questions carefully before answering.
3. Number your answers.
4. Make sure your student number appears on the answering script.

## PERMISSIBLE MATERIALS

1. Examination paper.
2. Examination script.
3. Calculator

## THIS QUESTION PAPER CONSISTS OF 6 PAGES (Including this front page)

Consider Sori Sori is a conservancy that is operating two enterprises - i.e., trophy hunting and harvesting, processing, and marketing of hoodia. Suppose you have just been employed as Business Development Manager by Sori Sori conservancy, and your first assignment is to prepare the balance sheet for the conservancy. Suppose further that you have been provided with the following information on the transactions that the conservancy made before your appointment:

- January 2018: the conservancy was given a five years trophy hunting concession worth N $\$ 700,000$ by government. The hunting concession should be treated as both an investment and a fixed asset.
- March 2018: the conservancy generated a cash profit of $N \$ 200,000$ from the hunting concession.
- April 2018: the conservancy made a cash purchase of hoodia worth $N \$ 120,000$ from community members.
- June 2018: the conservancy sold all the hoodia it purchased from community members. From the sale, the conservancy made a profit of $\mathrm{N} \$ 100,000$.
- July 2018: the conservancy acquired a hoodia processing machine worth $N \$ 150,000$. The conservancy made a down payment of $N \$ 50,000$, and the remain balance was a loan from a bank. The loan is to be repaid in two equal annual installments.
- August 2018: the conservancy got hoodia worth N\$280,000, on credit, from community members. This credit was only settled in February 2019 with a 20\% interest.
- September 2018: the conservancy sold hoodia worth N\$280,000, on credit, to a cosmetics company. The conservancy made a profit of $\mathrm{N} \$ 100,000$ on the credit sale. Cash from the credit sale was only received on February 2019.
- December 2018: Accumulated depreciation on fixed assets at the end of the 2018 financial year was estimated at $\mathrm{N} \$ 50,000$.

Based on this information answer the questions below:
a. Prepare a balance sheet ledger and enter the transactions above using the double-entry system.
b. Using the ledger, you have prepared in part $b(i)$, generate a balance sheet for Sori Sori conservancy for the financial year ended 31 December 2018.

TOTAL MARKS
a. Briefly describe how you would prepare indexed and common-sized financial statements.
b. The accompanying table shows comparative balance sheets and sales and net profit values for ABC Ltd for the accounting periods ended 31 December 2017 and 2018.

|  | $\begin{gathered} \text { Dec } 3112047 \\ \text { (us goro) } \end{gathered}$ | $\begin{aligned} & \text { Bec } 312018 \\ & \text { (ns (000) } \end{aligned}$ |
| :---: | :---: | :---: |
| ASSETS |  |  |
| Cash | 30 | 20 |
| Accounts Receivable | 200 | 260 |
| Inventory | 400 | 480 |
| Net Fixed Assets | 700 | 700 |
| Total Assets | 1330 | 1460 |
| LIABILITIES AND EQUITY |  |  |
| Accounts payable | 30 | 200 |
| Accruals | 200 | 210 |
| Notes payable | 100 | 100 |
| Long-term debt | 300 | 300 |
| Common stock | 100 | 100 |
| Retained earnings | 500 | 550 |
| Total Liabilities and Equity | 1330 | 1460 |
|  |  |  |
| Sales | 3000 | 4500 |
| Net Profit after tax | 500 | 200 |

i. Given the financial data in the table, calculate all the possible financial ratios for both years. Summarise your results in a table showing liquidity, activity, solvency, and profitability ratios.
ii. Based on your results in part b(i), interpret all the activity ratios for both years.
iii. Analyze the overall financial situation of $A B C$ Ltd from a time-series viewpoint. Break your analysis into evaluations of the firm's liquidity, activity, debt, profitability, and market. Based on your assessment, identify the areas that require further investigation to improve the financial performance of ABC Ltd.

## QUESTION THREE

a. Briefly discuss the partial budget. Your discussion should highlight its structure, purpose and use, and its interpretation.
b. Grenoble Enterprises needs a cash flow budget for the period of May to August. The projected cash inflows and cash outflows for Grenoble Enterprises are given below:

- Projected cash inflows
- Forecast sales for March through August are $N \$ 50,000, N \$ 60,000, N \$ 70,000$, $N \$ 80,000, N \$ 70,000$ and $\$ 100,000$, respectively. Grenoble expects to receive $20 \%$ of sales for cash, and balance is expected to be credit. The expected average collection period on credit is 60 days.
- Grenoble expected to receive other income from its investments of N\$2,000 per month.
- Projected cash outflows
- Grenoble's expected credit purchases are $N \$ 60,000, N \$ 50,000, N \$ 70,000$, N $\$ 60,000$, and $\$ 80,000$ for April through August, respectively. The company expects an average payment period of 30 days.
- Rent is $N \$ 3,000$ per month.
- General and administrative expenses are $10 \%$ of the previous month's sales
- Payment of principal and interest of $\mathbf{N} \$ 13,000$ is due in June.
- Taxes of $N \$ 6,000$ are due in July.
- Additional Information
- The beginning cash balance is projected to be $N \$ 40,000$.


## Questions

i. Given the projections above, prepare and interpret a cash budget for May, June, July, and August. When and how much financial resources does Grenoble need.
ii. Suppose Grenoble Enterprises plans to maintain a minimum ending cash balance of N\$5,000 per month from May through August. Using the cash flow budget you have prepared in part b(ii), estimate the cash excess or deficit that Grenoble will have from May through August.
a. What is an enterprise budget? Briefly describe the uses of the enterprise budget.
b. A conservancy is considering establishing a charcoal production enterprise using invader bushes. Based on the current biomass estimates, the conservancy can produce up to 100 tons of charcoal per annum. The market price of charcoal is N\$85 per bag, and each bag weighs 10 kgs . The conservancy expects operational and overhead costs for the charcoal enterprise to be N\$30 per bag and N\$20 per bag, respectively. Use this information to answer the questions below.
i. Prepare a well-structured enterprise budget, whose base unit is per ton, to evaluate the financial viability of charcoal production for the conservancy. Should the conservancy venture into charcoal production? Give justification for your answer.
ii. Estimate the break-even price per kg and break-even quantity (in kgs) for the charcoal enterprise.
c. Complete the 2018 balance sheet for Grenoble Enterprises using the information that follows it.

| Grenoble Enterprises, Balance Sheet, 31 Dec 2018 |  |  |  |
| :---: | :---: | :---: | :---: |
| Assets (N\$' 000) |  | Liabilities and Equity ( $\mathbf{N} \mathbf{\$}$ ' 000) |  |
| Cash | 30 | Accounts payable | 120 |
| Marketable Securities | 25 | Notes payable | ?? |
| Accounts Receivable | ?? | Accruals | 20 |
| Inventories | ?? | Total Current Liabilities | ?? |
| Total Assets | ?? | Long-term debt | ?? |
| Net fixed assets | ?? | Equity | 600 |
| Total Assets | ?? | Total Liabilities and Equity | ?? |

The following financial data for 2018 are also available:

- Sales totalled \$1,800,000.
- The gross profit margin was $25 \%$.
- The inventory turnover was 6.0.
- The average collection period was 40 days. There are 360 days in the year.
- The current ratio was 1.60.
- The total asset turnover ratio was 1.20.
- The debt ratio was $60 \%$.


## THE END

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## Financial Ratios

A cash inflow is a reduction in assets and an increase in liabilities and equity
A cash outflow is an increase in assets and a decrease in liabilities and equity


$$
\begin{aligned}
& \text { Interest expense } \\
& \text { Operating Profit }
\end{aligned}
$$

$$
\begin{aligned}
& \text { Asset turnover }=\frac{\text { Sales }}{\text { Total Assets }} \\
& \text { Quick Ratio }=\frac{\text { Current Assets less Inventory }}{\text { Total Current Liabilities }} \\
& \text { Average Collection Period }=\frac{\text { Accounts receivable }}{\text { Average Sales per day }}
\end{aligned}
$$

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

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

Break-even quantity $=\frac{\text { Total cost }}{\text { Expected Output price }}$
Return on Equity $=\frac{\text { Net Profit after taxes }}{\text { Total Equity }}$

$$
\begin{aligned}
& \text { Current Ratio }=\frac{\text { Current Assets }}{\text { Current Liabilities }} \\
& \text { Inventory turnover }=\frac{\text { Cost of goods sold }}{\text { Inventory }} \\
& \text { Gross Profit Margin }=\frac{\text { Gross Profit }}{\text { Total Sales }} \\
& \text { Average Payment Period }=\frac{\text { Accounts payable }}{\text { Average purchases per day }} \\
& \text { Times interest earned ratio }=\frac{\text { Net profit before interest and tax }}{\text { Interest expense }}
\end{aligned}
$$

xoc

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

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

$$
\begin{aligned}
& \text { Leverage Ration }=\frac{\text { Total Liabilities }}{\text { Total Equity }} \\
& \text { Net Profit after tax }
\end{aligned}
$$

Net Profit Margin $=\frac{\text { Net Profit after taxes }}{\text { Sales }}$
Sales

Return on Assets $=\frac{\text { Net Profit after taxes }}{\text { Tosts }}$
Other Formulas and Information

Total Assets
A debit increases assets and reduces liabilities and equity


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

A credit reduces assets and increases liabilities and equity

