

NATIONAL UNIVERSITY OF LESOTHO
FACULTY OF AGRICULTURE

DEPARTMENT OF AGRICULTURAL ECONOMICS & EXTENSION
UNDERGRADUATE EXAMINATIONS

AEC 2503: AGRICULTURAL AND RESOURCE ENTERPRISE ANALYSIS

AUGUST 2023 : SUPPLEMENTARY EXAMINATION

TIME: 3: HOURS

MARKS: 100

INSTRUCTIONS:

1. Answer any **ALL** questions.
2. Start each question on a new page.
3. Each question carries **25 Marks**.
4. Marks allocated for each question are in brackets.

SECTION A: SHORT STRUCTURED THEORY QUESTIONS

1. Explain how one may define enterprises in agriculture and give examples of various enterprises found in agriculture (6)
2. Describe how you would use SWOT and PEST analysis for an agribusiness enterprise analysis? (10)
3. Discuss financial ratios that you may use as a manager of an agribusiness enterprise to establish the health and financial performance of your business (10)
4. Distinguish between the **financial position** and the **financial performance** of a farm business, **and** indicate how each may be assessed (4)
5. State the external and internal uses of Cash flow statements (6)
6. Distinguish between the direct and indirect method of determination of cash flow from operating activities (4)

Sub-Total Marks.....**40 Marks**

SECTION B: CALCULATIONS

1. Mr C Maponyane operates Ncora Farm. On 1 March 2011, the *first day of his 2011/12 financial year*, his financial records contained the following accounts, with the **opening balances** (in Rands) as shown next to the account name:

Fixed improvements	Dr	203 340
Implements	Dr	82 500
Breeding Cattle	Dr	117 000
Bank Account	Dr	3 450
Agric Co-op Current Account	Cr	5 250
Agricultural Bank Loan (20 years)	Cr	35 517

On 29 February 2012, the *last day of that same financial year*, his financial records contained the following accounts, with the **closing balances** (in Rands) as shown next to the account name:

Fixed improvements	Dr	193 590
Implements	Dr	144 684
Breeding Cattle	Dr	125 700
Bank Account	Cr	1 125
Agric Co-op Current Account	Cr	825
Agricultural Bank Loan (20 years)	Cr	108 165
Private Drawings	Dr	18 790
Salaries and Wages	Dr	29 850
Crop production expenses	Dr	32 985
Livestock production expenses	Dr	28 245
Depreciation	Dr	32 250
Other expenses	Dr	36 090
Crop sales	Cr	59 350
Dairy produce sales	Cr	62 970
Livestock sales	Cr	34 620
Increase in livestock value	Cr	8 700
Other Income	Cr	870

DO THE FOLLOWING:

- (a) Draw up the **Opening Balance Sheet** (as at 1 March 2011)..... (7)
- (b) Draw up the **Profit and Loss Account** for the financial year (7)

- (c) Draw up the Closing **Balance Sheet** (29 February 2012)..... (6)
- (d) **Reconcile** (i.e. double-check) the Closing Net Capital, using the Opening Net Capital as well as any other account balances that you may need for this purpose. (3)
- (e) Using the figures available to you, comment *very briefly* on the **Financial Performance** of the business over the year. (2)

Subtotal25 marks

Question 1 (20 Marks)

a) Opening Balance Sheet (7 Marks)

Opening Balance Sheet (as on 1 April 2011)			
LIABILITIES:		ASSETS:	
Agric Co-op Current Account	5 250	Bank Account	3 450
Agricultural Bank Loan (20 years)	35 517	Fixed Improvements	203 340
		Implements	82 500
		Breeding Cattle	117 000
	365		
Net Capital	523		
	406		
	290		406 290

b) Profit and Loss Account for the year (7 Marks)

Profit & Loss Account for Year ending 31 Mar 2012			
Dr			Cr
Salaries & Wages	29 850	Crop sales	59 350
Crop Prod Expenses	32 985	Dairy produce sales	62 970
Livestock Prod Expenses	28 245	Livestock Sales	34 620
Depreciation	32 250	Increase in Livestock Value	8 700
Other Expenses	36 090	Other Income	870
Net Profit	7 090		
	166		
	510		166 510
		Net Profit	7 090

c) Closing Balance Sheet (7 Marks)

Closing Balance Sheet (as on 31 March 2012)			
LIABILITIES:		ASSETS:	
Bank Account	1 125	Fixed Improvements	193 590
Agric Co-op Current Account	825	Implements	144 684
Agricultural Bank Loan (20 years)	108	Breeding Cattle	125 700
	165		
	353		
Net Capital	859		
	463		
	974		463 974

d) Reconciliation: (5 Marks)

Owner's Equity - Opening value	365 523
Plus: Net Profit	7 090
= Sub-total	372 613
Less: Private Drawings	18 790
= Net Capital Closing Balance Sheet	353 823

e) Financial performance (2 Marks)

The business made a Net Profit of R11 700 over the year.

2. Mr Mashaba operates Boarder Post Farm. The information that appears below was available *after his accounts for the 2014/15 financial year had been finalised*. In this question you are required to make some interpretations from the information that is given.

On 1 March 2014, the **first** day of her 2014/15 financial year, the **Net Capital** in her (opening) balance sheet amounted to R491 639.

His Profit and Loss Account for the financial year showed a **Net Profit** of R104 580. During the same period, he had made **Private Drawings** to the value of R25 789.

On 28 February 2015, the **last** day of her the financial year, her (closing) balance sheet was as follows:

Balance Sheet for Border Post Farm, 31 March 2014
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LIABILITIES		ASSETS	
Co-op current account	23 456	Bank Account	14 853
Fuel account	5 765	Savings account	23 673
Agribank loan (5 years)	56 250	Breeding cattle	124 900
Agribank loan (25 years)	257 980	Tractors	76 900
Overdue electricity account	1 045	Implements	36 000
		Fertilisers in stock	4 000
<i>Net Capital</i>	<i>570 430</i>	Land	500 000
		Buildings, fences, etc	120 000
		Unsold maize in stock	12 000
		K Smith (for cows sold to him)	2 600
	<u>914 926</u>		<u>914 926</u>

DO THE FOLLOWING:

- (a) Differentiate between **Current Assets**, **Medium-term assets**, and **fixed assets**. (6)
- (b) From the *Closing Balance Sheet* given above, list all the **Current assets**, and calculate their total value. (4)

- (c) From the *Closing Balance Sheet* given above, list all the **Current liabilities**, and calculate their total value. (5)
- (d) From the *Closing Balance Sheet* given above, list all the **Medium-term assets**, and calculate their total value. (4)
- (e) From the *Closing Balance Sheet* given above, list all the **Medium-term liabilities**, and calculate their total value. (4)
- (f) Calculate the *Current Ratio* and use it to comment on the liquidity position of the business. (4)
- (g) Calculate the *Net Asset Ratio*, **and** use it to comment on the solvency position of the business (4)
- Subtotal** [30]

2 (a) (6 Marks)

Current assets (also known as short-term or working capital) are the most liquid assets and consist of items such as cash on hand, cash in the bank, stocks, debtors, finished and unfinished products, short-term investments and prepaid accounts. These assets can easily be converted to cash in a 12 month cycle without disrupting the farm business.

Medium-term assets (also called movable assets) are used in the production process to produce items which can be sold over a period, but are usually consumed over the medium term (normally 2-10 years). Movable assets include items such as vehicles, machinery, implements, tools, equipment, orchards, breeding-stock, plantations and medium-term investments. Most of these assets are subject to depreciation.

Fixed assets are also used in the production process, but have a longer serviceable life (usually more than 10 years). Fixed improvements and land are examples of fixed assets.

(b) Current Assets: (4 Marks)

Bank Account	14 853
Savings Account	23 673
Fertilizers in stock	4 000
Unsold maize in stock	12 000
Money owed by J Mafu	2 600
Total Current Assets	57 126

(c) Current Liabilities (5 Marks)

Co-op Current Account	23 456
Fuel Account	5 765
Overdue Electricity Account	1 045
Total Current Liabilities	30 266

(d) Medium-term Assets: (5 Marks)

Breeding Cattle	124 900
Tractors	76 900
Implements	36 000
Total Current Assets	237 800

(e) Medium-term Liabilities (5 Marks)

Agribank Loan (5 years)	56 250
Total Current Liabilities	56 250

(f) Current Ratio (5 Marks)

$$\begin{aligned}\text{Current Ratio} &= \text{Current Assets} / \text{Current Liabilities} \\ &= 57\,126 / 30\,266 \\ &= 1.89 : 1\end{aligned}$$

This is not ideal (2 : 1) but reasonable.

(g) Net Asset Ratio (5 Marks)

$$\begin{aligned}\text{Net Asset Ratio} &= \text{Total Assets} / \text{Total Liabilities} \\ &= 463\,974 / 110\,115 \\ &= 4.21 : 1\end{aligned}$$

This is very healthy (greater than 2 : 1)

(h) Prove the accounts (5 Marks)

Opening Net Capital	R491,639.00
Minus: Private drawings	R 25,789.00
Sub-total	R465,850.00
Add: Net Profit	R104,580.00
Closing Net Capital	R570,430.00

3. The following information was taken from the financial records of the XYZ Company.

	End of Year	Beginning of Year	Change
Cash	M 23500	M 37400	(13900)
Accounts receivable (net)	84500	80350	4150
Inventories	100200	94300	5900
Prepaid Expenses	4970	5300	(330)
Accounts payable (creditors)	71400	68900	2500
Salaries payable	5320	6450	(1130)

Net Income reported on the income statement for the current year was M134,800. Depreciation expense recorded on buildings and equipment was M27,400 for the year.

Required:

Using the indirect method prepare the Cash Flows from Operating Activities section of the Statement of Cash Flows.

SOLUTION

Solution #1

Net Income			\$134,800
Add:	Decrease in prepaid expenses	\$ 330	
	Increase in Accounts Payable	2,500	
	Depreciation Expense	27,400	30,230
			165,030
Deduct:	Increase in Accounts Receivable	\$ 4,150	
	Increase in Inventories	5,900	
	Decrease in Salaries Payable	1,130	11,180
Net Cash Flows from Operating Activities			\$153,850

Subtotal5 marks