higher education & training

Department:
Higher Education and Training
REPUBLIC OF SOUTH AFRICA

NATIONAL CERTIFICATE

FINANCIAL MANAGEMENT: FARMING N4

(4090484)

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Non-programmable calculators may be used.

This question paper consists of 8 pages.

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DEPARTMENT OF HIGHER EDUCATION AND TRAINING
REPUBLIC OF SOUTH AFRICA

NATIONAL CERTIFICATE
FINANCIAL MANAGEMENT: FARMING N4
TIME: 3 HOURS
MARKS: 200

INSTRUCTIONS AND INFORMATION

1. Answer all the questions.
2. Read all the questions carefully.
3. Number the answers according to the numbering system used in this question paper.
4. Start each section on a new page.
5. Use only a black or blue pen.
6. Write neatly and legibly.

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QUESTION 1: THE FARM MANAGEMENT INFORMATION SYSTEM

1.1 Indicate whether the following statements are TRUE or FALSE by writing only 'True' or 'False' next to the question number (1.1.1–1.1.5) in the ANSWER BOOK.

1.1.1 Cattle ready for slaughter are valued at net sales value.

1.1.2 Land is valued at current value.

1.1.3 An inventory is an outline of a farm's tangible assets, cash and investments, together with the applicable rand value.

1.1.4 The size of a farming enterprise is measured by the area and capital investment.

1.1.5 In the reducing balance method depreciation is initially low and then increases.

(5 × 1) (5)

1.2 The calculation of depreciation and depreciating assets have TWO basic purposes. Explain the purposes. (4)

1.3 The purchase price of a Combine harvester is known. The following information is also made available:

DESCRIPTION	UNIT
Purchase price of Combine harvester	R130 000
Estimated salvage value	R10 000
Estimated useful life	20 years

Instruction: Use the declining balance method of depreciation to calculate the following showing all formulae and calculations:

1.3.1 Determine the depreciation rate for this asset. (3)

1.3.2 Determine the depreciation for this asset for the first year that it is in use. (4)

1.3.3 What would the accumulated depreciation be after three years of use? (5)

1.3.4 What will the book value of this asset be after depreciation has been written off for five years? (5)

1.4 Farming assets are normally divided into five main groups for inventory purposes. List these FIVE main groups. (5)

1.5 Briefly discuss THREE important requirements that a farm management information system must comply with to function successfully. (3 × 2) (6)

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1.6 Certain descriptions should appear in the inventory regarding each depreciable asset.

List NINE descriptions for the assets that should appear in the inventory. (9)

1.7 List the FOUR components of the annual financial statements of a farming enterprise. (4)

[50]

QUESTION 2: PRODUCTION OF ECONOMIC PRINCIPLES

2.1 Distinguish between *average product* and *marginal product.* (4)

2.2 The following is information regarding maize production resulting from various levels of nitrogen (N) application. All the remaining inputs stay constant.

- The price of nitrogen is R50,00 per kilogram.
- The price achieved for maize is R5,00 per kilogram.
- The total fixed cost is R1 200,00 per hectare.
- The following table, which is part of the production function, indicates the relationship between the varying levels of N and the corresponding changes in maize production:

Levels of input Nitrogen applications (kg/ha)	**Total production Maize production (kg/ha)**
X	Y
5	500
10	625
15	700
20	750
25	775
30	775
35	735

Calculate the following showing all formulae and calculations:

2.2.1 The average production, should the nitrogen application (input) be 25 kg/ha

2.2.2 The marginal production if the input level of nitrogen (input) is increased from 20 kg/ha to 25 kg/ha

2.2.3 The total variable cost at a nitrogen input level of 25 kg/ha

2.2.4 The total cost at an application rate of 25 kg nitrogen per hectare

2.2.5 The average variable cost per kilogram canola at an application of 25 kg/ha

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2.2.6 The marginal cost should the application of nitrogen increase from 20 kg/ha to 25 kg/ha

(6 × 4) (24)

2.3 Name the possible FOUR types of substitution relationships between two variable inputs. (4)

2.4 Draw a graph of each of the following output/output or product/product relationships.

2.4.1 Joint products

2.4.2 Supplementary products

2.4.3 Complementary products

2.4.4 Antagonistic products

(4 × 3) (12)

2.5 Explain the law of diminishing marginal returns. (3)

2.6 The following questions relate to economies of scale.

2.6.1 Clearly set out the formula used to determine the returns to scale ratio. (2)

2.6.2 If the returns to scale ratio equals 1, what will the production phase be? (1)

[50]

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QUESTION 3: THE FARMING BALANCE SHEET

3.1 Mr Emmanuel is the bookkeeper of Agenbag Farming Enterprises, but he is inexperienced. He tried to compile a balance sheet, but he needs your help with certain aspects. The financial year ended on the 30 April 2019.

INSTRUCTION: Correct the errors by drawing up the corrected balance sheet in your answer book.

LIABILITIES		ASSETS	
Debtors	300	Total assets	2 150 926
Total capital employed		Balance on mortgage bond at Landbank	25 000
Investments and other		Stock production supplies	7 000
Outstanding balance on the Cape Agri account	15 000	Current liabilities	
Current assets		Movable assets	
Equipment	46 000	Outstanding telephone account	3 200
Fixed deposit at Bankrupt	10 000	Medium-term liabilities	
Fixed assets		Total debt	
Land	900 000	Long-term liabilities	
Fences	16 000	Overdraft account at ABSA bank	25 000
Electricity paid in advance	1 500	Dams	120 000
Buildings on farm	550 000	Balance on instalment sale agreement at ABSA bank	20 500
Pigs given to workers as rations	10 000		
Net worth		Total liabilities	

Additional information:

- Land leased from the neighbour is valued at R50 000
- 200 litre diesel stock is valued at R15 per litre
- Cash in the farm office: R125
- Pigs ready for slaughter: R500 000
- Wages for the year: R300 000
- R90 000 balance of rental agreement at Wesbank for a Landini tractor with a book value of R110 000. (44)

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3.2 Is the above farming enterprise referred to in QUESTION 3.1 solvent? Substantiate your answer. (3)

3.3 What is the value of the total foreign capital in the balance sheet referred to in QUESTION 3.1? (3)

[50]

QUESTION 4: THE FARM INCOME STATEMENT

The following financial information and production details are provided for a financial year of LUSHEEP farm, of which the financial year ended on the 31 December 2019.

Financial information	Value (R)
Other farming expenses	18 000
Electricity paid	100 000
Maintenance of movable assets	70 000
Value of sheep at beginning of year	500 000
Value of sheep at end of year	540 000
Wool stock at beginning of year	60 000
Wool stock at end of year	21 000
Sheep slaughtered as rations	8 000
Sheep slaughtered for household use	5 000
Wool sold to clothing company	60 000
Sheep sold, but money still outstanding	260 000
Lucerne sold to neighbour	30 000
Veterinary costs, including medicines	40 000
Depreciation on movable assets	64 000
Wages paid to permanent workers	96 000
Ewes bought on credit	20 000
Fuel purchased throughout the year	24 000
Lucerne fed to sheep	60 000
Fuel stock at end of year	4 000
Fuel stock at beginning of year	8 000
Lucerne donated to drought relief in the Northern Cape	20 000
Interest paid on loans	30 000
Land rental paid	40 000

Calculate the following showing all calculations and formulae where applicable:

4.1 The gross production value of the sheep branch (10)

4.2 The gross production value for the lucerne branch (4)

4.3 The gross production value for the farm as a whole (3)

4.4 The cost of labour for the year (3)

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4.5 The cost of fuel for the year (4)

4.6 The total production, marketing and administration costs for the year (8)

4.7 The net farm income (4)

4.8 The farm profit (5)

4.9 Did the farm make a profit or a loss? Substantiate your answer. (3)

4.10 Define the following terms:

4.10.1 Gross production value

4.10.2 Net farm income

4.10.3 Farm profit

(3 × 2) (6)
[50]

TOTAL: 200

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