N560(E)(J13)H
JUNE EXAMINATION

NATIONAL CERTIFICATE

FINANCIAL MANAGEMENT: FARMING N4

(4090484)

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09:00–12:00

CALCULATORS MAY USED

This question paper consists of 9 pages.

DEPARTMENT OF HIGHER EDUCATION AND TRAINING
REPUBLIC OF SOUTH AFRICA
NATIONAL CERTIFICATE
FINANCIAL MANAGEMENT: FARMING N4 N4
TIME: 3 HOURS
MARKS: 200

INSTRUCTIONS AND INFORMATION

1. Answer ALL the questions in the ANSWER BOOK.

2. Read ALL the questions carefully.

3. Number the answers according to the numbering system used in this question paper.

4. When doing calculations, insert physical units e.g. ha, Rand

5. For income statement or balance sheet use two facing pages.

6. Write neatly and legibly.

QUESTION 1: FINANCIAL MANAGEMENT AND PRINCIPLES OF PRODUCTION ECONOMICS

1.1 Indicate whether the following statements are TRUE or FALSE. Choose the answer and write only 'true' or 'false' next to the question number (1.1.1–1.1.10) in the ANSWER BOOK.

1.1.1. The maximum profit per hectare is made only when the return is at maximum potential.

1.1.2. Marginal returns will continue to increase as additional units are added.

1.1.3. The greater the number of hectares ploughed with a tractor, the lower the variable cost of the tractor per hectare will be.

1.1.4. The larger the area ploughed with a tractor, the lower the fixed cost per hectare for the tractor.

1.1.5. The average total cost per hectare of the tractor will stay the same even if a greater area is ploughed with the tractor.

1.1.6. In input/output ratios, the optimum input application level is the level at which maximum profit is achieved.

1.1.7. In input/input ratios, the manager must decide on an input combination that leads to equal quantities of inputs.

1.1.8. In economies of scale, a decreasing cost or increasing returns-to-scale ratio has a ratio of less than 1.

1.1.9. The law of diminishing marginal return states that, as fewer units of a variable input are applied in combination with fixed inputs, the marginal returns will start to decrease.

1.1.10. In input/output ratios, the value-of-product curve could be made to move downward by changes in yield due to frost damage.

(10 x 1)   (10)

1.2 Draw a graph to represent the following production curves between two products. Give an example of each

1.2.1. Joint Products

1.2.2. Supplementary Products

1.2.3. Complementary Products

1.2.4. Antagonistic Products

(4 x 4)   (16)

1.3   After copying the following table into the ANSWERBOOK, complete it.

Production per hectare (ton/ha)	Fixed Cost (R)	Variable Cost (R)	Total Cost (R)	Average Fixed Cost (R/t)	Average Variable Cost (R/t)	Average Total Cost (R/t)	Marginal Cost (R)
2,0	1 000	750					
4,0		6 000					
6,0		7 000					

(4 x 4)   (16)

1.4   In input/input relationships, the substitution relationship between two variable inputs is the relationship of an additional input (X_1) that is necessary to get the same production with a decrease of another input (X_2).

State the type of substitution relationship that is described in each of the following situations.

1.4.1.   Inputs in the production process lead to a fixed relationship.

1.4.2.   Fewer inputs of X_2 can be used to substitute one unit of X_1 as the quantity of X_1 decreases.

1.4.3.   The one input X_1 that is always in the same relationship to another input X_2 that can be substituted to get the same production results.

1.4.4.   More and more units of X_2 can be used to substitute one unit of X_1 as the quantity of X_1 decreases

(2 x 4)   (8)
[50]

Please turn over

QUESTION 2: THE FARM MANAGEMENT INFORMATION SYSTEM (FMIS)

2.1 Rational decision-making is a scientific process consisting of a number of steps.

List the first FIVE steps in sequence. (5 x 2) (10)

2.2 Indicate whether the following statements regarding an inventory are 'TRUE' or 'FALSE'. Choose the correct answer and only write 'true' or 'false' next to the question number (2.2.1–2.2.10) in the ANSWER BOOK.

2.2.1. Land is valued at the current market price.

2.2.2. Net sales price is used to determine the value of the stock of butternut in the store room.

2.2.3. Maize on the land can be valued at the crop insurance value.

2.2.4. The Massey Ferguson tractor bought last year is valued at the purchase price minus accumulated depreciation.

2.2.5. Apples in the cold store can be valued at the production costs less depreciation.

2.2.6. Livestock ready for slaughter are valued at net sales value.

2.2.7. An inventory takes cash on hand into account.

2.2.8. Production supplies are valued at the insurance cost.

2.2.9. The milking parlour built last year is valued at construction cost less accumulated depreciation.

2.2.10. An inventory is a once off record of farm assets and is not an ongoing record.

(10 x 1) (10)

2.3 There are a number of steps that need to be taken in establishing a farm management information system.

Discuss any FOUR of these steps in sequence. (4 x 2) (8)

2.4 A fellow manager asks you to explain the purposes or aims of calculating depreciation.

What information would you give? (2 x 2) (4)

2.5   Indicate whether the following statements are TRUE or FALSE. Choose the answer and write only 'true' or 'false' next to the question number (2.5.1–2.5.5) in the ANSWER BOOK.

    2.5.1.   According to the straight line method of depreciation a fixed amount of depreciation is calculated annually.

    2.5.2.   A disadvantage of the straight line method is that it is linked to the use of the asset.

    2.5.3.   An advantage of the declining balance method of depreciation is that it takes into account that the asset depreciates faster in the first few years of its life.

    2.5.4.   In the formula for declining balance method of depreciation, the rate of depreciation is calculated by dividing the useful life by 2.

    2.5.5.   In the use method of depreciation, the amount of annual depreciation stays constant.

                                                                 (5 x 1)   (5)

2.6   A tractor was bought from the agent three years ago. The tractor has a useful life of ten years after which you will be able to get a salvage price of R50 000. You paid a cash sum of R250 000 for the tractor.

    Using the straight line method, determine the current value of the tractor. Show all the calculations, formulae and units.   (8)

2.7   Using the above information, determine the depreciation of the tractor in the first year if the declining balance method of depreciation is used.

    Show all formulae, units and calculations.   (5)
                                                              [50]

Question 3: THE FARMING BALANCE SHEET

3.1 The following information about Blessings Farm as at 30 June 2012 is made available.

Description	Value (R)
Cows slaughtered during the year for the labourers	2 000
Value of extra land rented from the neighbour	500 000
Balance of Bond at FNB for land bought	200 000
Favourable bank balance at Capitec bank	25 000
Outstanding account at Senwes Co-operative	2 500
Paid up shares in Senwes Co-operative	1 000
School fees for the owner's children	23 750
Balance of instalment sale at Nedbank	75 500
Overdraft at Nedbank	5 500
Electricity account paid in advance	1 200
Value of dairy cows	150 000
Input VAT Outstanding	20 000
Milking Shed	250 000
Land purchased	750 000

3.1.1 Draw up a Balance Sheet for this farm. For every incorrect entry, a mark will be deducted. (36)

3.1.2. What is the value of the total foreign capital? (2)

3.1.3. Is the farm solvent? Motivate your answer. (2)

3.2 Indicate whether the following statements regarding an inventory and balance sheet are 'TRUE' or 'FALSE'. Choose the correct answer and only write 'true' or 'false' next to the question number (3.2.1 – 3.2.10) in the ANSWER BOOK.

3.2.1 Total assets equal the total liabilities plus the net worth.

3.2.2 Total capital applied is the total assets plus the net worth of the farm.

3.2.3 Net worth equals owner's interest.

3.2.4 Foreign capital is another term for total debt.

3.2.5 In a balance sheet total assets equal the total liabilities.

3.2.6 Moveable assets include livestock ready for slaughter.

3.2.7 Fixed Assets on a sheep farm include assets such as a shearing shed.

3.2.8 Net current assets equals, current liabilities plus current assets.

3.2.9 Stocks of farm produce make up net current assets.

Please turn over

3.2.10   The financing structure of a farm refers to the interests in the farm assets.

<div align="right">(10 x 1)   (10)
[50]</div>

QUESTION 4: THE FARMING INCOME STATEMENT

On a ⟨...⟩ rm, beef cattle and maize (mealies) are farmed. Most of the maize is used ⟨...⟩ e cattle. The farm manager meticulously kept record of everything and provided ⟨...⟩owing information regarding the farm for the financial year.

⟨Stock of...⟩ s and production means as at the beginning of the year:

	R
S⟨...⟩aize	8 000
Unus⟨...⟩ in the store	7 000
Fattened cattle ready for sale	50 000
Breeding cattle	150 000

Stock ⟨...⟩ and production means as at the end of the year:

	R
Self-produced maize	3 000
Unused fertilizer in the store	6 000
Fattened cattle ready for sale	65 000
Breeding cattle	175 000

Value of self-produced products that were used on the farm during the year:

	R
Maize fed to cattle	395 000
Cattle slaughtered for the owner of the farm	15 000
Cattle slaughtered for workers' rations	23 000
Maize as rations for workers	5 500
Manure from the cattle shed used on the maize lands	11 000

Sale of products during the year:

	R
Weaned calves	88 000
Fattened cattle sold on auction	875 000
Fattened cattle sold at year end (money not received yet)	225 000
Maize sold to the neighbour	75 000

Please turn over

Purchase of breeding stock during the year:

Two bulls bought from another breeder at R25 000 each. One died during transport but fortunately the insurance paid R20 000 for the loss.
Two stud heifers were bought for breeding at an auction for R18 000

Purchase of production means and other expenses were as follows:

	R
Maize Seed	18 000
Vaccine for cattle	5 500
Fertilizer	33 000
Fuel & Lubricants	65 500
Interest paid on loan	11 000
Cash Wages Labourers	240 000
Rations bought for labourers	11 500
Cattle feed bought from Epol	65 000
Maintenance of vehicles and implements	22 800
Electricity	25 000

Additional information for the year:

	R
Outstanding electricity account	2 500
Depreciation of vehicles and implements	25 000
Total debt of the farm at the end of the year	80 000
Owner's private expenses	95 000

Calculate the following showing ALL calculations and formulae where applicable. **The reproduction of rows of figures will not be regarded as an answer.**

4.1	The gross production value for the beef cattle branch	(14)
4.2	The gross production value for the maize branch	(6)
4.3	The gross production value for the farm as a whole	(3)
4.4	The cost of labour for the year	(5)
4.5	Cost of fertilizer for the year	(4)
4.6	The total production, marketing and administrative costs for the year	(12)
4.7	The net farm income (NFI) (show formula)	(3)
4.8	The farm profit	(3)
		[50]

TOTAL: 200