higher education & training

Department:
Higher Education and Training
REPUBLIC OF SOUTH AFRICA

MARKING GUIDELINE

NATIONAL CERTIFICATE

FINANCIAL MANAGEMENT: FARMING N4

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This marking guideline consists of 7 pages.

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QUESTION 1: THE FARM MANAGEMENT INFORMATION SYSTEM

1.1 Scientific farm management is goal-orientated decision-making or rational decision-making to achieve the objectives of the farming enterprise. (2)

1.2
- Historical costs, yields (physical as well as monetary) and inputs
- Current financial position and the physical condition of the production factors
- Expected costs, yields and inputs (6)

1.3
- The size of the farming enterprise, that is the area and capital investment
- The cost and income for profitability and growth in net worth
- How efficiently each product is produced and reasons for a high or low level of efficiency (3 × 2) (6)

1.4
- Inventory or asset register
- Income/receipts & expenditure/payments
- Physical production data
- Manpower records (4)

1.5
- Basis on which assets were valued
- Method applied in calculating depreciation and depreciating assets (2 × 2) (4)

1.6 1.6.1 $D = \frac{CP - S}{L}$ ✓

$= \frac{R(150\,000 - 15\,000)}{5\text{ yrs}}$ ✓✓

$= \frac{R135\,000}{5\text{ yrs}}$

= R27 000✓✓ (5)

1.6.2 Year 1: R150 000 – R27 000 = R123 000✓
Year 2: R123 000 **(Book value)**✓✓ (3)

1.6.3 Year 1: R150 000 – R27 000 = R123 000✓✓
Year 2: R123 000 – R27 000 = R96 000✓✓
Year 3: R 96 000 – R27 000 = R69 000✓✓
Year 4: R 69 000 – R27 000 = R42 000✓✓
Year 5: R 42 000 – R27 000 = R15 000✓✓ (10)

1.7 1.7.1 C
1.7.2 E
1.7.3 A
1.7.4 B
1.7.5 D

(5 × 2) (10)
[50]

QUESTION 2: PRODUCTION ECONOMICS PRINCIPLES

2.1 The production function indicates the relationship between various quantities or amounts of specific outputs and inputs, while other inputs and conditions remain constant. (2)

2.2
- Price of the input
- Price of the output (product) (2 × 2) (4)

2.3 When marginal income equals marginal costs (2)

2.4 2.4.1 Decreasing rate of substitution

2.4.2 Constant rate of substitution

2.4.3 Fixed rate of substitution

2.4.4 Increasing rate of substitution

(4 × 2) (8)

2.5 2.5.1 Complementary products are obtained when an increase in the production of one product also results in an increase in the production of the other.✓✓ Example: goats eat leaves, prevent bush encroachment and more grass develops for cattle. Legumes fix nitrogen and causes high production.✓

2.5.2 Supplementary products are obtained where a change in the production of one product has no effect on the production of another product.✓✓ Example: The diets of cattle and goats differ. Cattle graze on grass while goat browse leaves.✓

2.5.3 Joint products are obtained where the production of one product automatically generates a fixed quantity of another product.✓✓ Example: mutton and wool or beef and hides.✓

2.5.4 Antagonistic products occur if the production of one product not only claims the inputs of another product, but also has an adverse effect on that product.✓✓ Example: Cattle and blue wildebeest grazing together, blue wildebeest carry bovine malignant catarrhal fever, a disease that is fatal to cattle.✓

(4 × 3) (12)

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2.6 2.6.1 Marginal return = $\frac{\Delta Y}{\Delta X}$ ✓

$= \frac{300 \text{ kg/ha}}{10 \text{ kg/ha}}$ ✓✓

= 30✓✓ (5)

2.6.2 Total variable costs (TVC) = Input × Input price✓
= 30 kg/ha × R5,00✓
= R150 kg/ha✓✓ (4)

2.6.3 Average variable costs (AVC) = $\frac{\text{Total variable costs}}{\text{Production}}$ ✓

$= \frac{\text{R150 kg/ha}}{\text{1 150 kg/ha}}$ ✓✓

= R0,13✓✓ (5)

2.6.4 Total costs (TC) = Total variable costs + Total fixed costs
= R150 + R400✓
= R550,00✓✓ (3)

2.6.5 Average total costs (ATC) = $\frac{TC}{\text{Production}}$✓

$= \frac{R550}{1150 \text{ kg/ha}}$✓✓

= R0,48✓✓ (5)
[50]

QUESTION 3: THE FARMING BALANCE SHEET

3.1 3.1.1 True
3.1.2 True
3.1.3 False
3.1.4 False
3.1.5 True
3.1.6 True
3.1.7 False
3.1.8 False
3.1.9 True
3.1.10 True

(10 × 1) (10)

3.2 **THE FARMING BALANCE SHEET (as at 31 December 2016)**

LIABILITIES		**ASSETS**	
Current liabilities		*Current assets*	
Overdraft at ABSA 25 000✓		Cash in the bank 3 100✓	
Provision for income tax 6 100✓	**31 100**✓✓	Petty cash 200✓	
		Inventory (raw materials) 31 000✓	
		Prepaid insurance 1 000✓	
		Wool on sheep 3 500✓	**38 800**✓✓
Medium-term liabilities		*Investment & other*	
Repayment agreement at Wesbank for the truck	**10 000**✓	Co-operative levy fund	**1 200**✓
Long-term liabilities		*Movable assets*	
Bond payable at Nedbank	**105 000**✓	Office equipment 20 000✓	
		Tata truck 150 000✓	
		Accumulated depreciation (70 000)✓	**100 000**✓✓
Total debt	**146 100**✓	*Fixed assets*	
		Buildings 200 000✓	
		Accumulated depreciation (30 000)✓	**170 000**✓✓
		Land owned 1 200 000✓✓	
		Accumulated appreciation (20 000)✓✓	**1 220 000**✓✓
Net worth	**1 383 900**✓✓		
Total liabilities	**1 530 000**✓✓	**Total assets**	**1 530 000**✓✓
		Value of rented land	**60 000**✓✓
		Total capital employed	**1 590 000**✓✓

(40)
[50]

QUESTION 4: THE FARMING INCOME STATEMENT

4.1 4.1.1 Gross production value (GPV) refers to the monetary value of the farm production over an accounting period, which usually covers one financial year. (2)

4.1.2 **GPV for poultry branch**

Poultry sold for meat	70 000	✓
Eggs sold to checkers	350 000	✓
Manure from poultry branch sold to another farm	20 000	✓
Opening stock producing chickens	150 000	✓
Closing stock producing chickens	250 000	✓
Insurance paid for stolen chickens	25 000	✓
Manure from poultry used in crop	10 000	✓
Eggs for own consumption	6 000	✓
Eggs for employee's ration	5 000	✓
	386 000	✓✓ (11)

4.1.3 **GPV for crop branch** **200 000**✓✓
Maize grains transported to milling company (2)

4.1.4 **GPV for the farm as a whole**

386 000
+ 200 000
= **586 000** (2)

4.2 **Annual packaging costs for the poultry branch**

• Packaging bought during the year	20 000	✓
• Packaging stock at start of the year	4 000	✓
• Packaging stock at year end	-3 000	✓
	21 000	✓✓ (5)

4.3 **Annual diesel expenses**

• Diesel purchased during the year	30 000	✓
• Opening stock diesel	10 000	✓
• Closing diesel stock	-4 000	✓
	44 000	✓✓ (5)

4.4 **Total production, marketing and administrative expenses**

• Electricity	60 000	✓
• Vehicle maintenance	30 000	✓
• Poultry slaughtered for labourers	15 000	✓
• Short term insurance	20 000	✓
• Wages for permanent labourers	70 000	✓
• Feed purchases	130 000	✓
• Fertilizer purchases	20 000	✓
• Manure from poultry used in crop	10 000	✓
• Eggs for employee's ration	5 000	✓
• Annual packaging costs for poultry	21 000	✓
• Annual diesel expenses	44 000	✓
	425 000	✓✓ (13)

4.5 4.5.1 *Net farm income* (NFI) represents the portion of the GPV that remains as compensation for own and foreign capital. (2)

4.5.2 NFI = GPV (whole farm) – Production, marketing and admin costs
= 586 000 – 425 000✓
= R161 000✓✓ (3)

4.6 4.6.1 Farm profit represents the portion of the gross production value that remains as a compensation for farmer's own capital investment, and for him/her as a worker, manager and entrepreneur. (2)

4.6.2 Farm profit(FP) = NFI – foreign capital (Land rental + Interest paid)
= 161 000 – (9 000 + 15 000)✓
= 161 000 – 24 000
= 137 000✓✓ (3)
[50]

TOTAL: 200

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