higher education & training

Department:
Higher Education and Training
REPUBLIC OF SOUTH AFRICA

N550(E)(N11)H
NOVEMBER EXAMINATION

NATIONAL CERTIFICATE

FINANCIAL MANAGEMENT: FARMING N5

(4090495)

11 November 2014 (Y-Paper)
13:00–16:00

Calculators may be used.

This question paper consists of 8 pages.

BUSINESS STUDIES

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DEPARTMENT OF HIGHER EDUCATION AND TRAINING
REPUBLIC OF SOUTH AFRICA

NATIONAL CERTIFICATE
FINANCIAL MANAGEMENT: FARMING N5
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. Draw a line across the page after each completed question.
5. Start each question on a NEW page.
6. Where necessary, use physical units.
7. Write neatly and legibly.

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QUESTION 1: ANALYSIS AND INTERPRETATION OF FARMING RESULTS

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 With trend evaluation, the ratio or other performance criteria are compared to external ratios.

1.1.2 External norms are the best or most preferred norms of measuring liquidity.

1.1.3 Comparative evaluation measures performance over time.

1.1.4 The liquidity position of an undertaking refers to its ability to pay its debt when farming ceases and the assets are sold.

1.1.5 The gearing ratio is an important liquidity ratio.

1.1.6 Liquidity ratios are not influenced by the manner of valuating assets.

1.1.7 The measurement of growth in net worth requires two consecutive balance sheets.

1.1.8 Farm profit includes remuneration to suppliers of foreign capital.

1.1.9 The current ratio is a more reliable method of determining liquidity than the acid-test ratio.

1.1.10 Banking practises require a minimum debt ratio of 2 : 1.

(10×1) (10)

1.2 Various options are provided as possible answers to the following questions. Choose the answer and write only the letter (A–C) next to the question number (1.2.1–1.2.5) in the ANSWER BOOK.

1.2.1 Trend evaluation refers to:

A The farm's performance over time
B The farm's solvency position
C The farm's goals

1.2.2 The gearing ratio reflects the relationship between:

A Farm debt and net worth
B Farm assets and farm debt
C Net worth and farm assets

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1.2.3 The growth in net worth is calculated by:

A Expressing the growth in net worth as the percentage of the net worth according to the opening balance sheet
B The difference between the net worth of the opening balance sheet and the closing balance sheet
C The difference between the net worth of the closing balance sheet and the opening balance sheet

1.2.4 An employee remuneration ratio of R20 per R100 gross production value implies that:

A The cost to realise R100 gross production value is R80
B To realise R100 gross production value, R20 is spent on labour
C For every R100 gross production value there is R80 to pay interest

1.2.5 How smaller the debt ratio of a farming undertaking means that:

A The risk for the person lending capital increases
B The persons lending capital will be less inclined to lend more money to the enterprise
C The farmer is in a safer position to borrow more capital

(5 × 1) (5)

1.3 Explain the concept *solvency position of a farm.* (4)

1.4 On a given date, a certain farm's debt is R150 000 while the value of the assets is R600 000. The current liabilities are R45 000 and current assets are R120 000.

1.4.1 Calculate the gearing ratio of the farm. Explain what this ratio means to the farmer and bank manager. Show ALL units, formulae and calculations. (8)

1.4.2 Calculate the current ratio of the undertaking. Show ALL units, formulae and calculations. What does the answer mean to the farmer? (8)

1.5 What comprises the remuneration of suppliers of foreign capital? (3)

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1.6 The following information regarding a farm for a certain year is made available:

• GPV of the grain branch	R450 000
• GPV of dairy branch	R450 000
• Employee remuneration	R145 000
• Depreciation of vehicles and machinery	R10 000
• Repair cost of vehicles and machinery	R10 000
• Marketing costs	R3 900
• Administrative costs	R2 300
• Fuel	R4 500

Implement the following instructions and show ALL units, formulae and calculations:

1.6.1 Calculate the employee remuneration per R100 GPV. (5)

1.6.2 Calculate the NFI per R100 GPV. Explain the meaning of the answer. (7)

[50]

QUESTION 2: CAPITAL REQUIREMENTS, FORMS AND SOURCES

2.1 Define the concept *effective financing of a farming enterprise.* (7)

2.2 Certain circumstances of a farming enterprise prevail which make it different from other enterprises.

List FIVE of these circumstances. (5 × 2) (10)

2.3 Define *permanent capital requirements.* (4)

2.4 A number of factors influence the farming enterprise's capital requirements. General policy is regarded as one of these factors.

List and discuss briefly another FOUR of these factors. (4 × 2) (8)

2.5 There are a number of methods to save on the farming enterprise's working capital requirements.

Briefly discuss a policy that can be followed to reduce the requirement of working capital. (3 × 2) (6)

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2.6 Indicate whether the following statements are TRUE or FALSE. Choose the answer and write only 'true' or 'false' next to the question number (2.6.1–2.6.5) in the ANSWER BOOK.

2.6.1 Own capital is regarded by suppliers of foreign capital as risk capital.

2.6.2 Long-term loan capital is made available to the farmer for a period varying from ten (10) to twenty (20) years.

2.6.3 Own capital of a farming enterprise is equal to the difference between total assets and total debt.

2.6.4 The advantage of a loan from family members is that these credit providers tend to be less lenient in times of need than other types of credit suppliers.

2.6.5 An overdraft facility at a bank should never be used for long-term credit.

(5 × 1) (5)

2.7 There are various sources of own capital for a farming enterprise.

Discuss FIVE of these sources. (5 × 2) (10)
[50]

QUESTION 3: THE FINANCING POLICY OF A FARMING ENTERPRISE

3.1 Discuss the main requirements for a sound financing policy. (8)

3.2 What will the farmer require to get information about the farm's future capital requirements? (6)

3.3 Name the requirements for liquidity resilience. (6)

3.4 How much is sufficient own capital? (2)

3.5 For a loan, there are certain factors that can determine the farm's ability to repay the loan.

Name FIVE of these factors. (5 × 2) (10)

3.6 With reference to loans, explain what security means. (4)

3.7 Discuss FIVE factors that can place a farming enterprise's farm's ability to repay a loan in doubt. (5 × 2) (10)

3.8 What statements or documents with regard to a farming enterprise will a bank require when evaluating the enterprise's repayment ability? (4)
[50]

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QUESTION 4: AUXILIARY BUDGETS

4.1 Define the concept *rate of return.* (6)

4.2 Indicate whether the following statements are TRUE or FALSE. Choose the answer and write only 'true' or 'false' next to the question number (4.2.1–4.2.10) in the ANSWER BOOK.

4.2.1 A parametric analysis does not take the effect of changes of product prices into account.

4.2.2 A monthly transaction flow gives information to the farmer about the flow of cash every month.

4.2.3 A complete branch budget makes provision for a parametric analysis amongst others.

4.2.4 A partial budget can be used when an extra production branch is being considered.

4.2.5 A breakeven budget can be used to measure the change in GPV as a result of the replacing of labour with mechanical equipment.

4.2.6 A partial budget is used to determine the critical point at which a certain action covers the total cost thereof.

4.2.7 A calendar of activities is used to determine the flow of funds per month.

4.2.8 The change in input prices is always taken into account by parametric analysis.

4.2.9 The margin above specified costs is the difference between the GPV of the branch and the total variable and fixed costs.

4.2.10 The present value of money is the value that a specific sum of money, which is to be received in the future, has today.

(10 × 1) (10)

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4.3 Consider the following scenario: - Swartland Farms produces 300 hectares of maize annually which are harvested on a contract basis. The owner is considering acquiring his own harvester instead of using the contractor.

INSTRUCTION: Draw up a partial budget to determine the change in profit that will result if a harvester is bought. Indicate whether it will be advantageous to acquire the harvester. The following information is available:

Description	Information
Cost price of the harvester	R450 000
Expected life of the harvester	10 year
Expected salvage value after 10 years	R40 000
Opportunity cost of capital	5% per year
Annual insurance for harvester	R5 000
Variable costs of harvester	R150 per ha
Contract price for harvesting maize	R450 per ha

(16)

4.4 By using a breakeven budget, determine how many hectares canola must be harvested to justify the purchase of a canola harvester instead of using a contractor.

The following information is available:

Description	Information (R)
Depreciation	24 000
Interest	20 000
Insurance of harvester	7 000
Fuel	R55 per ha
Repair and maintenance	R45 per ha
Cost of contractor	R350 per ha

(10)

4.5 Assume that a certain farming undertaking is comprised of a fruit and a dairy branch.

List any FOUR cost items that would normally be regarded as specified variable cost for the dairy branch. (4)

4.6 Calculating the margin above specified costs and drawing up a calendar of activities are two of the various components of a complete branch budget.

Name the other TWO components. (2 × 2) (4)

[50]

TOTAL: 200

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MARKING GUIDELINE

NATIONAL CERTIFICATE

NOVEMBER EXAMINATION

FINANCIAL MANAGEMENT: FARMING N5

11 NOVEMBER 2014

This marking guideline consists of 9 pages.

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QUESTION 1: ANALYSIS AND INTERPRETATION OF FARMING RESULTS

1.1
1.1.1 False
1.1.2 False
1.1.3 False
1.1.4 False
1.1.5 False
1.1.6 False
1.1.7 True
1.1.8 False
1.1.9 False
1.1.10 True

(10 × 1) (10)

1.2
1.2.1 A
1.2.2 A
1.2.3 C
1.2.4 B
1.2.5 C

(5 × 1) (5)

1.3 Solvency means that the farm can pay its debt✓ when the farming is stopped✓ and all the assets are sold✓ for this purpose.✓ (4)

1.4 1.4.1

$$\text{Gearing ratio} = \frac{\text{Net Worth}}{\text{Farm Debt}}\checkmark$$

$$= \frac{(R600\,000 - R150\,000)}{R150\,000}\checkmark$$

$$= 3:1 \text{ (minus one as :1 omitted)}\checkmark\checkmark$$

- Farming undertaking is solvent.✓
- The greater the ratio the better✓ (more favourable) is the solvency position of the undertaking.✓
- In practice a ratio of 1 : 1 or greater is required to borrow more money.✓ (8)

1.4.2

$$\text{Current ratio} = \frac{\text{Current Assets}}{\text{Current liabilities}}\checkmark$$

$$= \frac{R120\,000}{R45\,000}\checkmark$$

$$= 2.7 : 1 \text{ (minus 1 if :1 omitted)}\checkmark\checkmark$$

- For every R1 of current liabilities the enterprise has, it has R2,70 of current assets.✓
- The minimum liquid requirement of 2 : 1✓has been exceeded.✓
- The farm can meet its obligations.✓ (8)

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1.5 Interest on debt
Crop-sharing (Share-cropping) payments
Rental of land (3)

1.6 1.6.1 Employee(worker) remuneration per R100 GPV

$$= \frac{Employee\ Remuneration}{GPV} \times \frac{100}{1}\checkmark$$

$$= \frac{R145\,000}{R450\,000+R450\,000} \times \frac{100}{1}\checkmark\checkmark$$

= R16.11 per R100 GPV *(only1 mark if only R16.11 is given)*✓✓ (5)

1.6.2 Net Farm Income per R100 GPV

$$= \frac{GPV\ (Production - marketing - and\ administrative\ costs}{GPV} \times \frac{100}{1}\checkmark$$

$$= \frac{R900\,000-(R145\,000+R10\,000+R10\,000+R3\,900+R2\,300+R4\,500)}{R900\,000} \times \frac{100}{1}\checkmark$$

$$= \frac{R724\,300}{R900\,000} \times \frac{100}{1}\checkmark$$

= R80-48 per R100 GPV *(only 1 mark if R80-48 given)*✓✓

- For every R100 GPV there is R80,48 remaining as NFI✓
- For every R100 GPV there is R80-48 for remuneration of suppliers of foreign capital✓ (7)

[50]

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QUESTION 2: CAPITAL REQUIREMENT, FIRMS AND SOURCES

2.1 The effective financing of an enterprise requires that capital be obtained in such a form✓ and from such sources✓ that the capital satisfies the qualitative✓ and quantitative requirements✓ and specific✓ circumstances✓ of the enterprise.✓ (7)

2.2 *For question 2.2 for 2 marks per answer, the concept must be described and not only one or two words given e.g. "Variable climatic conditions" which achieves 1 mark.*

- Agriculture is exposed to variable climatic conditions✓ that makes agricultural production (+/or financing) risky.✓
- The relatively inelastic supply of and demand for agricultural products✓ results in the fact that the use of agricultural products does not vary greatly even if the price thereof changes.✓ *(any reasonable answer)*
- Inability to adapt to changes✓ – great price variations occur and prices move toward an unstable equilibrium.✓
- Structural changes in agriculture take time✓ – e.g. when change is made from one production branch to another in farming, a long time is required.✓
- Seasonal nature of agriculture✓ – farming products are dependent on the season and are not available year round.✓
- Many small production units✓ – many small production units spread over a large area make administration for suppliers of foreign capital difficult as well as planning for the farmer.✓
- Land is most important capital asset.✓ Purchasing price of farm land is often higher than productive value as a result of speculation and subjective decisions. (√)
- Movable assets and products are dispersed and nondurable.✓ They are difficult to identify, nondurable and can therefore not be offered as security.✓
- Structural shortcomings in agriculture✓ means that there are a large number of small production units that are not economically self-sufficient.✓

(Any 5 × 2) (10)

2.3 Permanent capital requirements: All the capital invested in fixed✓ and movable assets✓ including certain current assets✓ so that the undertaking's production capacity may be ensured.✓ (4)

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2.4 *For question 2.4 for 2 marks per answer, the concept must be described and not only one or two words given e.g. "The Production branch" achieves only 1 mark. All four of the following (reasonable explanation allowed):*

- Region and nature of the soil✓ – differences come in unit price and the general size of the land depending on the area and type of farming.✓
- The production branches✓ also determine the amount of capital required, for instance an extensive cattle farm requires less capital per unit than an intensive fruit farm.✓
- Size of the enterprise✓ determines the capital required – the larger the farm, the more capital. Inputs must therefore be fully utilised.✓
- Production techniques✓ influence capital requirements. Factors such as mechanisation, soil preparation etc. influence the need for capital.✓

(4 × 2) (8)

2.5 Working capital can be saved by:

- Keeping a small stock of production means – buy as needed.
- Sell products as quickly as possible instead of holding back in the hope of a better price.
- Do not sell on credit – sell for cash. (3 × 2) (6)

2.6
2.6.1 True
2.6.2 True
2.6.3 True
2.6.4 False
2.6.5 True (5 × 1) (5)

2.7 *For question 2.7 for 2 marks per answer, the concept must be described and not only one to three words given e.g. has "proper use of labour" got 1 mark. Any five of the following:*

- Bequests, donations and additional earnings.✓ Professional people have an outside source of income that can be used and family can make donations to the enterprise or bequeath money.✓
- Profits from farm✓ – to be viable, the farm must make a profit so that funds are available to expand and to pay off debt.✓
- Savings at expense of household spending.✓ By adapting his/her lifestyle, the farmer can use less money for personal use and make more money available to the farm.✓
- Proper/better use of labour✓ – Concerned with the correct and effective use of labour to achieve higher productivity and planning of work to save time.✓
- Any transaction that will improve the net worth,✓ by improving own capital situation by the following:✓
  - Appreciation on land
  - Capital gains on selling assets
  - Additions to replacement reserves
  - Income from outside farm – interest
  - Proper tax planning (any 2 examples are required)

(5 × 2) (10)
(50)

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QUESTION 3: THE FINANCING POLICY OF A FARMING ENTERPRISE

3.1 The main requirements include:
- A knowledge of the historical,✓ present/current✓ and especially the future✓ nature✓ and size✓ of the enterprise's capital requirements.✓
- Building up of resilience (or maintenance of liquidity)✓
- As well as advantageous financing✓ (8)

3.2 To gain information or knowledge of his/her capital requirements, the farmer needs an integrated budgeting system✓ that consists of:
- Production budget✓
- Main budget✓ and
- Financing budget✓

Where production size stays constant, one year is sufficient.✓ As expansions are planned, a longer period of budgeting is needed.✓ (6)

3.3
- The size of the loans must be such that the interest and capital redemption✓ can be paid✓ from the farm income✓ even in relatively poor years.✓
- The term of the loan must be in line✓ with the expected useful life of the asset or purpose for which financing is required.✓ (6)

3.4 Sufficient Own Capital = Total asset value✓ minus the maximum affordable amount of loan capital.✓ (2)

3.5
- The potential net farm income.
- The farmer's requirement with regard to living expenses.
- Income tax liability.
- Extent of existing loans and obligations.
- Rate of interest, extent and repayment conditions of the proposed loan.

(5 × 2) (10)

3.6 Security of loan refers to own capital✓ of the farmer✓ that can be used to pay back the loan✓ that can be used as collateral.✓ (4)

3.7 *(The candidate must expand on the answer to prove that he/she understands the subject matter to earn the second mark)*

- The size of the farming undertaking✓ is not big enough to generate a satisfactory gross production value and hence NFI.✓
- Low production per unit. E.g. low production per unit due to insufficient irrigation water or a low calving percentage.✓✓
- The product price per unit is too low✓ as a result of poor quality or poor marketing or poor general pricing.✓
- Production costs are too high✓ as a result of the input costs that are too high or too many inputs used.✓
- Living expenses too high✓ as a result of a too high a living standard or high education costs for children.✓ (5 × 2) (10)

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3.8
- Income statement✓
- Balance sheets✓
- Production, main and financing budgets✓✓ (4)

[50]

QUESTION 4: AUXILARY BUDGETS

4.1 The rate of return is the average annual✓ net cash flow✓ after tax✓ minus✓ the annual average depreciation✓ expressed as a percentage of the capital investment.✓ (6)

4.2
4.2.1	False
4.2.2	False
4.2.3	True
4.2.4	True
4.2.5	False
4.2.6	False
4.2.7	False
4.2.8	False
4.2.9	False
4.2.10	True

(10 × 1) (10)

4.3 *(If units are excluded then minus 1 mark at every answer where units are omitted)*

Annual fixed cost of the maize harvester
= Annual (depreciation + opportunity cost + insurance)

Depreciation = $\frac{CP-S}{L}$✓

= $\frac{R450\,000-R40\,000}{10\ years}$✓

= $\frac{R410\,000}{10\ years}$

= R41 000/yr✓

Opportunity cost of capital

$$= \frac{CP+S}{2} \times i\checkmark$$

$$= \frac{R450\,000+R40\,000}{2} \times 5\%/year\checkmark$$

$$= \frac{R490\,000}{2} \times 0{,}05/year$$

= R245 000 × 0,05/year
= R12 250/year✓
Insurance per year = R5 000/year✓
Total fixed cost per year = R41 000/yr + R12 250/yr + R5 000/yr
= R58 250/y✓

	R	R		R
	Additional Costs		Cost saving	
Fixed cost	58 250✓			0
Variable cost	45 000✓	103 250✓	Contractor	135 000✓
Forfeited GPV		0	Additional income	0
Increase in profit		31 750✓		
		135 000		135 000✓

Should the harvester be bought, a R31 750 increase in profit will occur.✓ Based on this information, it is recommended that the harvester be bought to replace contractor.✓ (16)

4.4 *(Note: minus 1 if ha is omitted in final answer)*

Fixed cost = Depreciation + Interest + Insurance✓
= R24 000 + R20 000 + R7 000✓
= R51 000✓

Total Variable Cost per ha = Fuel + Repairs & maintenance✓
= R55 + R45✓
= R100 per ha✓

$$\text{Breakeven} = \frac{F}{P-V}\checkmark$$

$$= \frac{R51\,000}{R350/ha - R100/ha}\checkmark$$

$$= \frac{R51\,000}{R250/ha}\checkmark$$

= 204 ha✓ (10)

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4.5	• Veterinary costs • Medication/medicines for the cows/cattle • Cleaning materials for the dairy • Livestock feed • AI costs • Cost of cooling/refrigerating milk • Packing material for milk	(Any 4 × 1)	(4)
4.6	• A parametric analysis✓ of the margin above specified costs✓ • A monthly✓ transaction flow✓	(2 × 2)	(4) **[50]**
		TOTAL:	**200**

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