



basic education

Department:
Basic Education
REPUBLIC OF SOUTH AFRICA

**NATIONAL
SENIOR CERTIFICATE**

GRADE 12

AGRICULTURAL MANAGEMENT PRACTICES

FEBRUARY/MARCH 2013

MARKS: 200

TIME: 2½ hours

This question paper consists of 15 pages and a 2-page answer sheet.

INSTRUCTIONS AND INFORMATION

1. This question paper consists of FOUR questions. Answer ALL the questions.
2. SECTION A (QUESTION 1) must be answered on the attached ANSWER SHEET.
3. Place the ANSWER SHEET for SECTION A (QUESTION 1) inside the front cover of the ANSWER BOOK.
4. SECTION B (QUESTIONS 2 to 4) must be answered in the ANSWER BOOK.
5. QUESTION 4.2.1 must be answered on the attached ANSWER SHEET. Place the ANSWER SHEET for QUESTION 4.2.1 inside the front cover of the ANSWER BOOK.
6. Start EACH question in SECTION B on a NEW page.
7. Read the questions carefully and answer only what is asked.
8. Number the answers correctly according to the numbering system used in this question paper.
9. Non-programmable calculators may be used.
10. ALL calculations must be rounded off to TWO decimals unless stated otherwise.
11. Give special attention to units, where applicable.
12. Write neatly and legibly.

SECTION A**QUESTION 1**

- 1.1 Various options are provided as possible answers to the following questions. Choose the answer and make a cross (X) in the block (A–D) next to the question number (1.1.1–1.1.10) on the attached ANSWER SHEET.

Example:

1.1.11	X	B	C	D
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- 1.1.1 The main factor used to determine the veld type is the ...
- A amount of grass.
 - B composition of grass species.
 - C density of the grass.
 - D amount of Karoo bush.
- 1.1.2 A typical example of a specialised farming system is ...
- A maize and lucerne production on irrigated soil.
 - B dairy cattle and pigs kept in intensive units.
 - C sheep for wool production in a low rainfall area.
 - D beef production and game farming on a game ranch.
- 1.1.3 The farming system used when a farmer produces only enough produce for the household and has no extra produce to sell:
- A Subsistence farming
 - B Commercial farming
 - C Specialised farming
 - D Precision farming
- 1.1.4 The clay and loam content of soil will determine the ... of the soil.
- (i) texture
 - (ii) drainage
 - (iii) water infiltration
- Choose the most appropriate combination for the statement above:
- A (i) and (ii)
 - B (i) and (iii)
 - C (ii) and (iii)
 - D (i), (ii) and (iii)
- 1.1.5 When an entrepreneur compiles a budget, the first step will involve ... skills.
- A planning
 - B technical
 - C management
 - D evaluation

- 1.1.6 The amount of produce a farmer has to sell to cover all costs involved is known as the ...
- A supply and demand.
 - B cost plus a percentage of profit.
 - C fixed costs.
 - D break-even point.
- 1.1.7 The specific management aspect used to increase the productivity of workers by means of encouragement without decreasing the profit of the enterprise is ...
- A planning.
 - B motivation.
 - C control.
 - D evaluation.
- 1.1.8 A typical example of farm work associated with seasonal labour is ...
- A daily maintenance work.
 - B the planting of seedlings during the annual planting season.
 - C building a store for grading and then leaving the farm.
 - D feeding animals twice a day.
- 1.1.9 The preservation method used to preserve meat as biltong is ...
- A sugaring and drying.
 - B drying and smoking.
 - C drying and salting.
 - D salting and smoking.
- 1.1.10 The Act that is used for the standard and grading requirements of a processed agricultural product is the ...
- A Agricultural Product Standards Act, 1990 (Act 119 of 1990).
 - B Weights and Measures Act, 1958 (Act 13 of 1958).
 - C Standards Act, 1962 (Act 33 of 1962).
 - D Agricultural Produce Export Act, 1971 (Act 51 of 1971).

(10 x 2) (20)

1.2 Choose a description from COLUMN B that matches an item in COLUMN A. Write only the letter (A–L) next to the question number (1.2.1–1.2.10) on the attached ANSWER SHEET, for example 1.2.11 M. Each description in COLUMN B may only be used ONCE.

COLUMN A	COLUMN B
1.2.1 Crop rotation	A fuel
1.2.2 Movable capital	B the management principle that is applied to create a situation where there are no conflicts of interest in an agricultural enterprise
1.2.3 Fixed cost	C salary for permanent labour
1.2.4 Financial plan	D gives guidelines and conditions when drawing up a labour contract for workers
1.2.5 Threats	E farming method to enhance the productivity of the land
1.2.6 Controlled marketing	F the reason for applying very high temperatures to an agricultural product
1.2.7 Mark on carcass	G livestock
1.2.8 Coordination	H political unrest
1.2.9 Basic Conditions of Employment Act	I pricing of agricultural products was determined by the control boards
1.2.10 Sterilisation	J clearly indicates the grading of an agricultural product
	K includes budgets, income statements and acquiring of capital
	L determines the operational conditions in the workplace

(10 x 2)

(20)

1.3 Give the CORRECT word/term for each of the following descriptions. Write the correct word/term next to the question number (1.3.1–1.3.10) on the attached ANSWER SHEET, for example 1.3.11 Planning.

1.3.1 A farming method used to control flooding and erosion during high rainfall on cultivated soils that make use of grass banks

1.3.2 Farming system where the same crop is produced on the same piece of land year after year

1.3.3 A decrease in the value of equipment, like tractors, over a period of time

1.3.4 A comprehensive plan developed for a farming enterprise that can be used to acquire a loan from a commercial bank

1.3.5 Indicates the amount of work done in a certain time and is used as a measure of efficiency

1.3.6 The type of asset that will not be changed often on the short term

1.3.7 The document issued during a transaction between a producer and a buyer

1.3.8 Changing an agricultural product into a new product which will then add value to the original product

1.3.9 Changing a farming enterprise to accommodate people visiting the farm regularly to expose them to agricultural activities

1.3.10 The process of placing an agricultural product into a container suitable for that specific product before marketing the product

(10 x 1) (10)

TOTAL SECTION A: 50

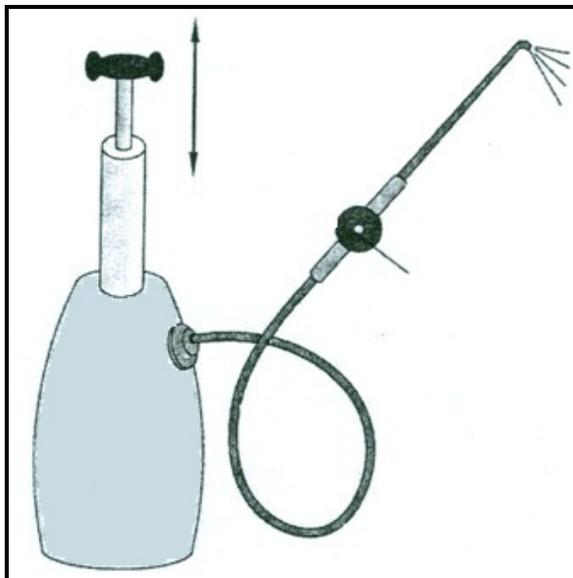
SECTION B**QUESTION 2: ANIMAL AND CROP PRODUCTION**

Start this question on a NEW page.

- 2.1 One of the most important economic characteristics of land as a production factor is that it is subjected to the law of diminishing returns.
- Explain the meaning of the *law of diminishing returns*. (2)
- 2.2 There are THREE main types of labour on farms, namely general farm workers, farm foremen and farm managers.
- 2.2.1 The duties below are performed on a farm. Match each duty to one of the above-mentioned types of labour.
- (a) Driving a tractor
 - (b) Cleaning animal housing
 - (c) Weeding
 - (d) Keeping record
 - (e) Organising the work to be done
 - (f) Erecting a fence (6)
- 2.2.2 Differentiate between *farm managers* and *farm workers* with regard to the following aspects:
- (a) The type of work (2)
 - (b) Responsibilities (2)
- 2.3 One of the possible ways to acquire capital is to apply for credit.
- 2.3.1 Describe the meaning of the term *credit*. (1)
- 2.3.2 Name FOUR main sources of credit in agriculture. (4)
- 2.3.3 In agriculture credit can be classified as long term, medium term and short term. Compare, in table format, these types of credit with regard to their timeframes and main purposes. (6)

- 2.4 Suitable equipment must be used for the effective production of animals and crops.

The picture below represents an example of equipment used on a farm.



- 2.4.1 Identify the farm equipment represented in the picture above. (1)
- 2.4.2 Explain how a livestock farmer and a crop farmer can use the equipment mentioned in QUESTION 2.4.1 effectively in their respective farming enterprises. (4)
- 2.5 Describe the practical application of the following precision-farming technologies in the farming enterprise:
- 2.5.1 Global positioning system (GPS) (2)
- 2.5.2 Geographical information system (GIS) (4)
- 2.5.3 Variable rate technology (VRT) (2)
- 2.6 Soil texture is an important soil property because it directly influences soil usage. Name FOUR soil qualities that make this statement TRUE. (4)
- 2.7 One of the functions of soil is that it allows water infiltration. Explain the relationship between infiltration capability and the clay content of soil. (2)

- 2.8 Mechanisation is the use of machines instead of people to do the work. The photograph below shows mechanised farm equipment used on a farm.

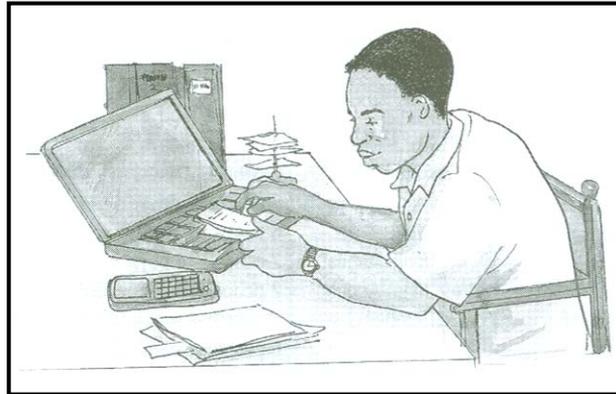


- 2.8.1 Identify the self-propelled farm machine shown in the photograph above. (1)
- 2.8.2 Briefly explain the main benefits of using equipment such as illustrated in the photograph above. (4)
- 2.9 Name THREE veld types of natural grazing. (3)
- [50]**

QUESTION 3: RECORDING, FINANCIAL STATEMENTS AND ENTREPRENEURSHIP

Start this question on a NEW page.

3.1 Record-keeping is a continuous process that consists of gathering the relevant documentation and recording the transactions.



- 3.1.1 Give THREE reasons why a farming enterprise should keep records. (3)
- 3.1.2 Name THREE requirements of a good business record. (3)
- 3.1.3 Name THREE methods that can be used to keep a farm's business records. (3)

3.2 A general dealer buys and sells crops. The dealer buys 15 bags of a crop for R65,00 per bag and sells it for R81,25 per bag. The other expenses of R200,00 include the rental of the premises and wages.

Calculate the gross profit and the net profit of this business by copying the table below into your ANSWER BOOK and including the required values and data.

CALCULATION OF THE GROSS AND THE NET PROFIT

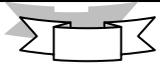
ACTIVITY/TRANSACTION	AMOUNT
Income	
•	
•	
•	
Expenses	R200,00
•	

- 3.3 Vision and mission statements are some of the important aspects when drafting a farm business plan. (8)
- Explain FOUR characteristics of the vision and mission statements of a farm business. (4)

- 3.4 Describe the meaning of the term *budget*. (4)
- 3.5 The document that captures the key data when a business transaction takes place is known as the source document. A cash deposit slip is an example of such a source document.

- Account number: 0194236429
- Cash amount: R6 000,00 (R4 500,00 notes and R1 500,00 coins)
- Cheque amount R3 000,00 from Standard Bank (code: 07746)
- Creditor: Joy-Smile Livestock producers
- Date: 29/12/2011

Deposit slip

NSC-DBE Bank											
Account Deposit/Rekeningdeposito											
Date/Datum	29/12/2011			Branch Code/Takkode							
Branch/Tak	Pretoria										
Account Number Rekeningnommer	3.5.1									R	c/s
Credit/Krediteer	3.5.2						Notes/Note	3.5.3 →			
							Coins/Munte	3.5.4 →			
							Subtotal/ Subtotaal	6 000		00	
Drawer/Trekker				Bank				Branch Code/ Takkode			
1. T Market				3.5.5				3.5.6	3.5.7 →		
2.											
3.											
							TOTAL/TOTAAL	3.5.8 →			
Deposit by/ Gedeponer deur	J Allman						Signature/ Handtekening				

Complete the cash deposit slip using the information above. Write only the question number (3.5.1–3.5.8) and the required information. (8)

- 3.6 A farmer consolidates the assets and liabilities of his farming enterprise. Some accounts from the local cooperative are outstanding. The creditors still have to be paid and some of the debtors owe the enterprise money for produce purchased. The enterprise has a large investment in one of the investment companies.
- 3.6.1 Draw a table to group the assets and the liabilities of the farming enterprise. (4)
- 3.6.2 Name THREE main groups of contributing factors that will increase the liabilities of a farming enterprise. (3)
- 3.6.3 Indicate TWO effects that too many liabilities will have on a farming enterprise's liquidity. (2)

- 3.7 As a financial manager at Rambo Fresh Produce Market you are requested to compile a report on the economic viability of the company for the financial year ending 28 February 2011. The financial information is compiled from information obtained from 2011 and 2012, reflected in the table below.

FINANCIAL INFORMATION	2011	2012
Purchase	R334 000	R377 500
Net sales	R360 000	R425 000
Closing stock		R24 000
Operating cost	R18 000	R20 000
Opening stock	R35 000	

- 3.7.1 Calculate the following with regard to this company:

(a) Gross profit (3)

(b) Net profit (2)

- 3.7.2 Deduce the economic viability of the company from all the available data and give TWO reasons to support your answer. (3)

[50]

QUESTION 4: HARVESTING, VALUE-ADDING, MARKETING, AGRITOURISM AND INDUSTRY

Start this question on a **NEW** page.

4.1 There are two methods of harvesting crops, namely hand harvesting and machine harvesting.

4.1.1 Name the crop-harvesting method that is suitable where the topography of the field is rocky and has steep slopes. (1)

4.1.2 Name the crop-harvesting method that is suitable for crops grown on large areas of land where the field is more level or the slopes are less steep. (1)

4.1.3 Discuss FOUR disadvantages of hand harvesting in terms of the following:

- Time utilisation
- The area covered
- Labour utilisation
- Quality of the harvested product

(4)

4.2 The table below represents the supply and demand schedule for a crop.

Price (R/kg)	Quantity demanded per week (kg)	Quantity supplied per week (kg)	Surplus	Shortage
4	600	0		600
8	500	100		400
12	400	200		200
16	300	300		0
20	200	400	200	

4.2.1 Draw a line graph on the attached ANSWER SHEET that represents the supply and demand schedule from the values given in the table above. (5)

4.2.2 Indicate the price of the product at the point of market equilibrium. (1)

4.2.3 Briefly explain the possible reasons for the shortage of the product in the market at specific times. (2)

- 4.3 The good quality of harvested crops must be maintained after harvesting and this is important when marketing the product. Farmers tend to erect storing facilities, such as the grain silos shown in the photograph below, to preserve their crops. Produce is stored in such storing facilities where the environment is controlled to prevent moulding, rotting and damage by pests and rodents.



- 4.3.1 State THREE environmental factors that are controlled in such storage facilities. (3)
- 4.3.2 Name any TWO organisms or animals that may damage harvested produce if the crop is not stored in such storage facilities. (2)
- 4.4 Consumers prefer buying processed agricultural products rather than raw agricultural products.
- 4.4.1 Briefly explain the reasons for preserving an agricultural product. (3)
- 4.4.2 List any FOUR methods of preserving an agricultural product. (4)
- 4.5 Producer organisations, such as MPO, Grain SA and even farmers' cooperatives, assist emerging farmers to establish and sustain their farming businesses.
- State FOUR ways in which these producer organisations assist farmers. (4)

- 4.6 You want to start an agricultural tourism business on your farm. The tourist bureau provides you with the list of possible services and items shown below.

- Shopping centre
- Canteen
- Health centre/First-aid kit
- Tavern
- Toilets
- Tour guide
- Small museum
- Transport
- School
- Computers

Choose FIVE items or services from the list above that are essential for an agritourism business on a farm. (5)

- 4.7 During the process of farm evaluation a farmer discovers that the costs of some of the items are very high. These costs include fuel, chemicals (herbicides and pesticides) and maintenance.

4.7.1 Explain why it is important to do a farm evaluation on items like the ones above. (2)

4.7.2 Suggest practical ways in which the farmer can reduce some costs on these items. (6)

- 4.8 Name any FIVE essential items of information that must appear on the label of packaged agricultural produce. (5)

- 4.9 Processing farm products involves the use of machinery and sharp metal objects, such as knives, saws, drills, et cetera. These objects can be dangerous if handled carelessly.

Name TWO safety measures that one should apply when working with such dangerous objects and machinery. (2)
[50]

TOTAL SECTION B: 150
GRAND TOTAL: 200

ANSWER SHEET

CENTRE NUMBER:

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EXAMINATION NUMBER:

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SECTION A

QUESTION 1.1

1.1.1	A	B	C	D
1.1.2	A	B	C	D
1.1.3	A	B	C	D
1.1.4	A	B	C	D
1.1.5	A	B	C	D
1.1.6	A	B	C	D
1.1.7	A	B	C	D
1.1.8	A	B	C	D
1.1.9	A	B	C	D
1.1.10	A	B	C	D

(10 x 2) (20)

QUESTION 1.3

1.3.1	
1.3.2	
1.3.3	
1.3.4	
1.3.5	
1.3.6	
1.3.7	
1.3.8	
1.3.9	
1.3.10	

(10 x 1) (10)

QUESTION 1.2

1.2.1	
1.2.2	
1.2.3	
1.2.4	
1.2.5	
1.2.6	
1.2.7	
1.2.8	
1.2.9	
1.2.10	

(10 x 2) (20)



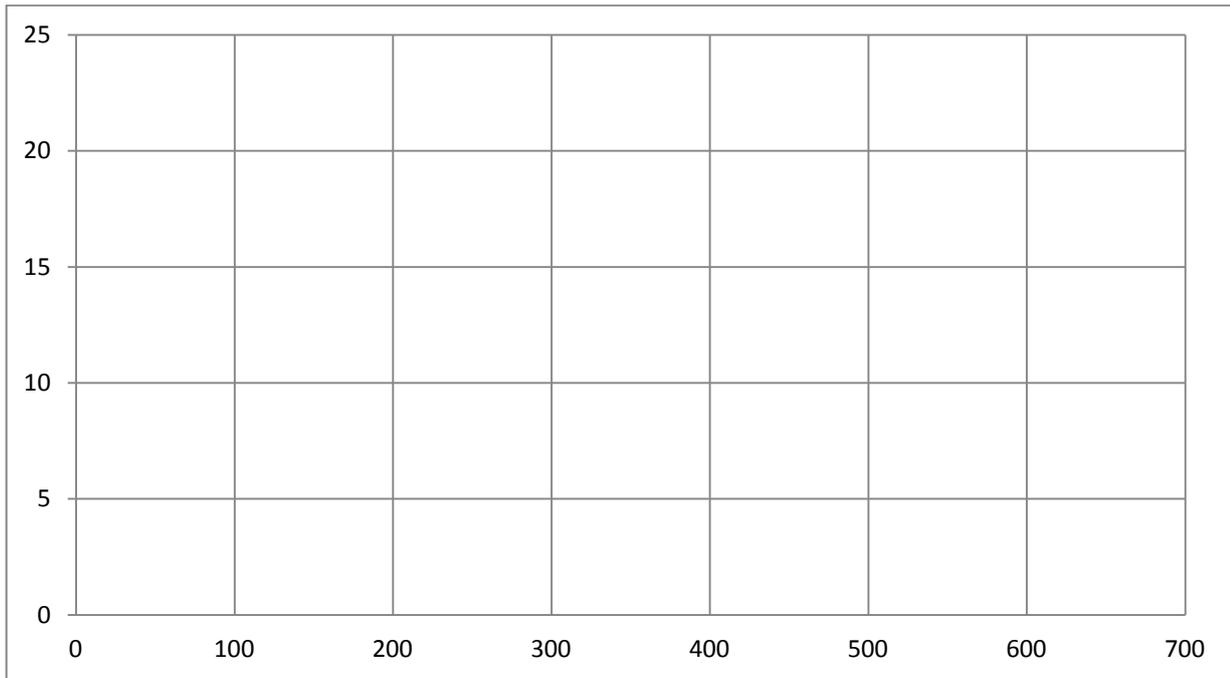
TOTAL SECTION A: 50

ANSWER SHEET

CENTRE NUMBER:														
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EXAMINATION NUMBER:																			
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QUESTION 4.2.1



(5)