



basic education

Department:
Basic Education
REPUBLIC OF SOUTH AFRICA

**NATIONAL
SENIOR CERTIFICATE**

GRADE 12

AGRICULTURAL MANAGEMENT PRACTICES

NOVEMBER 2013

MARKS: 200

TIME: 2½ hours

This question paper consists of 15 pages.

INSTRUCTIONS AND INFORMATION

1. This question paper consists of FOUR questions. Answer ALL the questions.
2. ALL the questions must be answered in the ANSWER BOOK.
3. Read the questions carefully and answer only what is asked.
4. Number the answers correctly according to the numbering system used in this question paper.
5. You may use a non-programmable calculator.
6. Round off ALL calculations to TWO decimal places, unless stated otherwise.
7. Write neatly and legibly.

SECTION A**QUESTION 1**

- 1.1 Various options are provided as possible answers to the following questions. Choose the correct answer and write only the letter (A–D) next to the question number (1.1.1–1.1.10) in the ANSWER BOOK.
- 1.1.1 A farming system with a high output on a small piece of land is called ... farming.
- A precision
 - B intensive
 - C extensive
 - D subsistence
- 1.1.2 ONE of the following is NOT a general characteristic used to classify natural pastures:
- A Palatability
 - B Topography
 - C Soil texture
 - D Erosion condition
- 1.1.3 Movable capital in a farming enterprise refers to ...
- A land.
 - B tractors.
 - C seed.
 - D fertiliser.
- 1.1.4 Before precision farming can commence you have to ...
- A have aerial photographs indicating the size of the land.
 - B know the total number of animals on the farm.
 - C know the cultivar of the crop planted this year.
 - D know the exact calibration of the planter when planting.
- 1.1.5 Before renting your services to other farmers it is important that you issue a/an ...
- A receipt.
 - B invoice.
 - C deposit slip.
 - D quotation.

- 1.1.6 The daily flow of money in a farming enterprise will be reflected in the ...
- A income statement.
 - B cash flow statement.
 - C balance sheet.
 - D budget.
- 1.1.7 Various preservation techniques exist where an inhibitor is added to prevent or even kill micro-organisms in food. Select a technique that does NOT refer to this statement:
- A Alcohol
 - B Applying cold
 - C CO₂ (carbon dioxide) under pressure
 - D Antibiotics
- 1.1.8 The aim of the Occupational Health and Safety Act, 1993 (Act 85 of 1993) is that every labourer will ...
- A be provided with protective clothing when spraying herbicides.
 - B be treated humanely during working hours.
 - C receive compensation when he/she is injured in the execution of his/her tasks.
 - D receive training opportunities to enhance his/her skills.
- 1.1.9 The process whereby an agricultural product is changed by using yeast is called ...
- A pasteurisation.
 - B fermentation.
 - C blanching.
 - D filtration.
- 1.1.10 A marketing channel where a pooling system is commonly used to sell farmers' produce is called ... marketing.
- A farm gate
 - B farm stall
 - C cooperative
 - D contracted
- (10 x 2) (20)

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

COLUMN A		COLUMN B	
1.2.1	Humidity	A	production factor that involves the planning of a farming enterprise
1.2.2	Soil texture	B	indication of the moisture content of air
1.2.3	Commercial farming	C	arrangement of soil particles
1.2.4	Global Positioning System	D	indicates the position of a tractor in the field
1.2.5	Receipt	E	document issued when ordering seeds to plant
1.2.6	Credit	F	a change in the appearance of a product to make it attractive for the consumer
1.2.7	Management	G	money borrowed from a financial institution
1.2.8	Export market	H	document issued for a cash transaction on a farm
1.2.9	Sterility	I	the size of soil particles
1.2.10	Packaging	J	farming to produce enough products to sell for a profit
		K	no living organism present in the processed food
		L	agricultural trading that involves customs

(10 x 2)

(20)

- 1.3 Give the correct term for each of the following descriptions. Write only the term next to the question number (1.3.1–1.3.10) in the ANSWER BOOK, for example 1.3.11 Recording.
- 1.3.1 The different aspects, like capital, labour and climate, that a farmer has to consider before starting a new agricultural production unit
- 1.3.2 Doing the correct farming activity at the correct time with the correct equipment using the correct method
- 1.3.3 The temperature at which an animal or plant will produce at its utmost during a season in a specific region
- 1.3.4 A method of payment where a written instruction from the account holder authorises the bank to pay the payee on presentation
- 1.3.5 The financial statement that reflects the probable income and expenditure for the year to come
- 1.3.6 The type of document that will be issued for any transaction that takes place on a farm
- 1.3.7 The type of labourer that works on a farm during the same period each year to perform tasks that occur yearly
- 1.3.8 The process whereby a producer will advertise and sell the product that was produced on a farm
- 1.3.9 A management principle that ensures that there are no conflicting issues in organised farming activities
- 1.3.10 Organisations that will assist the farmer with information on the most recent production methods, marketing and assistance in financing (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 Farmers must be aware of the impact of their production methods on the environment and the resources available. Resources, like soil, water and veld, need to be well managed to ensure sustainable food production.
- 2.1.1 Indicate FOUR possible ways in which a farmer can reduce the negative impact of production methods on the veld. (4)
- 2.1.2 Describe THREE factors that will have an influence on the veld management programme. (3)
- 2.2 Land that is not managed correctly will degrade (deteriorate) and will not be able to support future production. Two forms of degradation namely soil degradation and vegetation degradation are visible.
- 2.2.1 State TWO causes of soil degradation. (2)
- 2.2.2 State TWO methods that can be used to rehabilitate areas where soil degradation occurs. (2)
- 2.2.3 Name TWO acts that control the use and management of natural resources. (2)
- 2.3 Briefly discuss the soil physical unchangeability under the following headings:
- 2.3.1 Soil texture (2)
- 2.3.2 Soil depth (2)
- 2.3.3 Slope (2)
- 2.4 Capital is one of the most important resources in an agricultural farming enterprise.
- 2.4.1 Name and explain the TWO main sources of capital that can be obtained from financial institutions. (4)
- 2.4.2 State THREE problems related to capital as a production factor. (3)

2.5 Precision farming is an integrated agricultural management system incorporating several technologies to produce agricultural products.



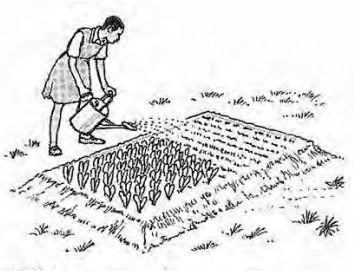
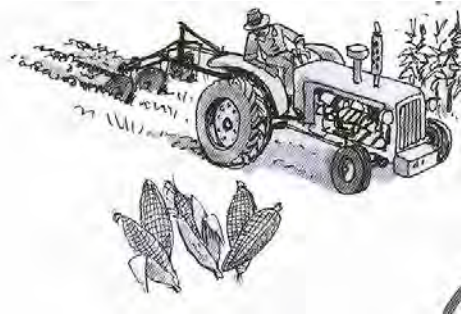
2.5.1 State THREE benefits of precision farming. (3)

2.5.2 Arrange the information below chronologically to indicate the process of successful implementation of precision farming.

machine application; data collection;
data capturing; data evaluation

(4)

2.6 The illustrations with explanations below represent different people and their relevant duties on a farm.

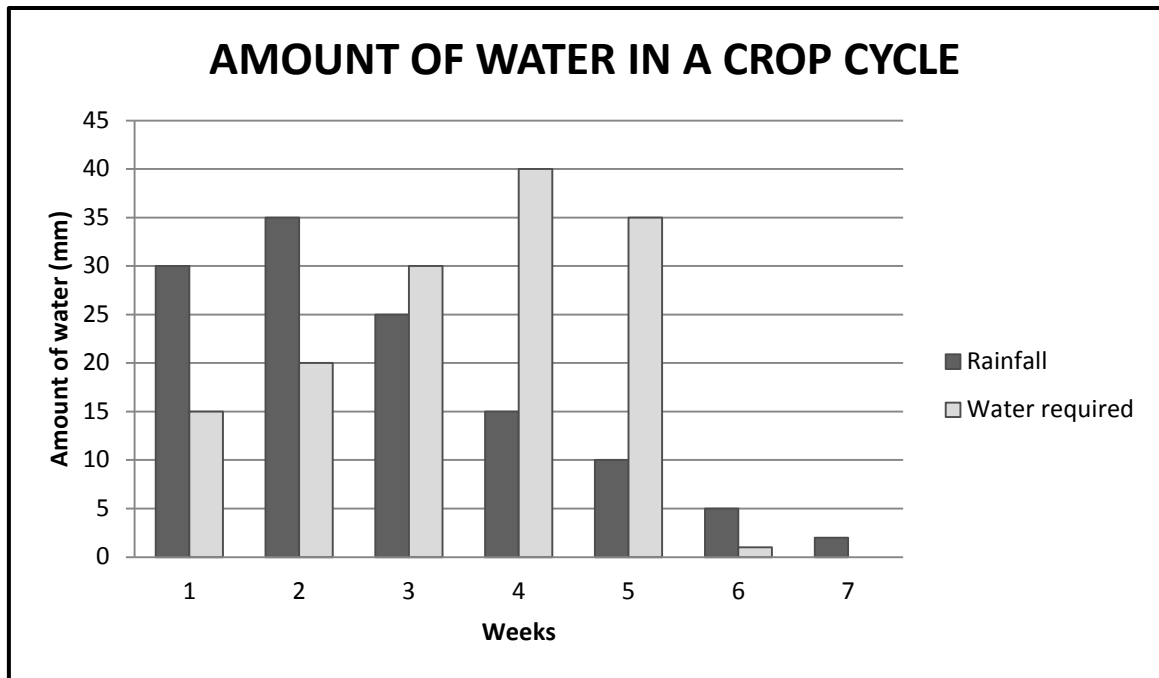
<p>A</p>  <p>Employed during June this year to do only the farmer's taxes</p>	<p>B</p>  <p>Responsible for managing the different tasks performed on a farm</p>
<p>C</p>  <p>Employed during the peak planting or harvesting periods</p>	<p>D</p>  <p>Works the 45 hours a week prescribed for the farming sector</p>

2.6.1 Study the information above carefully and identify the specific type of worker that each illustration (A–D) represents. (4)

2.6.2 From the illustrations above, select the worker that has the least job security. (1)

2.6.3 Briefly explain the differences between the workers in illustrations A and C by referring to the definitions. (4)

2.7 Study the graph below and answer the questions that follow. The crop is planted during week one, ripens during week five, dries in week six and is harvested in week seven.



- 2.7.1 Indicate if there is enough water available for the seedlings. (1)
 - 2.7.2 Indicate if there is enough water available during the ripening period of the crop. (1)
 - 2.7.3 Give TWO possible solutions if there is not enough water available for the crop during a specific time of the cycle. (2)
 - 2.7.4 List the FOUR problems that a farmer can experience if the rainfall in weeks six and seven is very high. (4)
- [50]**

QUESTION 3: RECORDING, FINANCIAL STATEMENTS AND ENTREPRENEURSHIP

Start this question on a NEW page.

- 3.1 List the basic information that any source document should display. (2)
- 3.2 Define the term *petty cash*. (2)
- 3.3 A balance sheet gives the farmer a picture of the financial state of affairs at a certain date. It will give the information needed to decide whether credit need to be obtained, or not.
- 3.3.1 Define the term *balance sheet* as a financial statement. (2)
- 3.3.2 Explain the meaning of the term *net value*. (2)
- 3.3.3 Briefly distinguish between the different terms of credit and give ONE example of the use of each one:
- (a) Long-term credit (3)
 - (b) Medium-term credit (3)
 - (c) Short-term credit (3)
- 3.4 Farming is generally a sole proprietary business. This means that a farmer must be a good entrepreneur for the business to succeed.
- 3.4.1 Name FOUR characteristics of a good entrepreneur. (4)
- 3.4.2 Give THREE reasons why people should take the risk to start their own farming businesses. (3)

3.5 A farming business plan usually contains the information below.

- Growth potential
- Vision and mission statement
- Price and other risks
- Assumptions and definitions
- Foreign exchange risk
- Nature of the business
- Facility plan
- Administrative plan

Categorise the items above under the relevant headings (3.5.1–3.5.5) below.

- | | | |
|-------|--------------------------|-----|
| 3.5.1 | Business description | (2) |
| 3.5.2 | Market analysis/Overview | (1) |
| 3.5.3 | Operational plan | (2) |
| 3.5.4 | Risk analysis | (2) |
| 3.5.5 | Financial plan | (1) |

3.6 The table below represents the record of income and expenditure of the cultivation of one hectare of a specific crop.

INCOME			EXPENDITURE		
Date	Item	Price (R)	Date	Item	Cost (R)
21/9	2 000 boxes, 15 kg each, farm produce at R40,30/box	80 600,00	01/04	Ploughing soils at R600,00/ha	600,00
23/09	600 bags, 10 kg each, farm produce at R25,70/bag	15 420,00	24/04	Harrowing soils at R250,00/ha	250,00
27/09	20 cases, 20 kg each, farm produce for the home at R20,00/case	400,00	24/04	15 bags of fertiliser (50 kg) at R395,00/bag	5 925,00
			28/04	Opening furrows and fertilising (labour)	310,00
			29/04	7 bags of seed (30 kg) at R165,00/bag	1 155,00
			01/05	10 kg cutworm bait at R115/kg	1 150,00
			08/09	Harvesting wages for 4 workers at R550,00 a week	2 200,00
			21/09	Transport to market	720,00
	TOTAL			TOTAL	

3.6.1 Calculate the following:

(a) Total income (2)

(b) Total expenditures (2)

3.6.2 Evaluate the values in the table to see if there was a profit or a loss made for the period indicated. Motivate your answer with calculations and a reason. (4)

- 3.7 Study the Cash Flow Budget of a livestock farm for a three-month period from 1 October 2013 to 31 December 2013. Answer the questions that follow.

Cash Flow Budget from 1 October 2013 to 31 December 2013

	October	November	December
CASH RECEIPTS			
Cash sales	225 600	188 800	150 400
Debtors' collection	352 464	308 232	253 896
Rent income	22 800	26 220	26 220
Total receipts	(a)	(b)	(c)
CASH PAYMENTS			
Cash purchases	43 800	36 900	28 500
Payments to creditors	106 988	87 374	70 350
Salaries and wages	223 820	209 000	235 600
Operating expenses	57 000	55 800	54 200
Withdrawals	22 800	28 500	34 200
Interest on loan			7 600
Loan instalments			19 000
Total payments	(d)	(e)	(f)
CASH SURPLUS/DEFICIT	146 456	105 678	-18 934
Bank (opening balance)	25 000	171 456	277 134
Bank (closing balance)	171 456	277 134	247 800

- 3.7.1 Calculate the total cash receipts (a–c) and the total cash payments (d–f) for the three-month period. Write your answer next to the question number (a–f). (6)
- 3.7.2 Indicate the month when the farm worked at a loss. Motivate your answer. (2)
- 3.7.3 Give TWO reasons why it is important to compile a farm budget. (2)
- [50]**

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

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

- 4.1 The processing of agricultural products is very common in the 21st century. State FOUR advantages of processed products for the consumer. (4)
- 4.2 Some farmers store agricultural products in small quantities. State the disadvantages when an agricultural product is stored in small quantities. (4)
- 4.3

The agricultural sector is one of the biggest providers of jobs in South Africa. Tasks on a farm still rely on manual labour. Recently, farming communities were affected by labour unrest about remuneration and working conditions.

- 4.3.1 State FOUR disadvantages of harvesting produce by hand. (4)
- 4.3.2 Indicate the problems that labourers will experience when harvesting produce by hand. (4)
- 4.3.3 Discuss how a farmer can improve the working conditions of labourers who harvest by hand. (5)
- 4.4 A farmer has the option to market fresh produce at a municipality fresh produce market or by a contract with one of the convenient supermarkets.
- Tabulate your answer to distinguish between these two marketing channels – *a municipality fresh produce market* and *a contract with one of the convenient supermarkets* – from the farmer's point of view. (7)
- 4.5 Name FOUR different methods that can be used to add value to fresh meat. (4)
- 4.6 Packed processed agricultural products must be labelled. Certain information is compulsory by law to be on the label.
- Explain the information that must be provided on the label by referring to the following aspects:
- 4.6.1 Product information (3)
- 4.6.2 Nutritional value (3)
- 4.6.3 Allergies (2)

4.7 Game farms are tourist attractions and contribute to the image of our country.

4.7.1 Give THREE reasons why farmers are changing their farms to become agritourism attractions. (3)

4.7.2 Explain why a game farm is more of a tourist attraction than an ordinary farm. (2)

4.8 A livestock farmer is evaluating the farm to plan for future development. The following observations are made during the evaluation:

- The income from selling stud animals has increased during the past two years.
- The income from commercial animals has decreased during the past two years.
- The total number of cattle has increased yearly.
- The weekly mass increase of the cattle has slackened.

Evaluate the information above and make some recommendations to this farmer.

(5)
[50]

TOTAL SECTION B: 150
GRAND TOTAL: 200