



basic education

Department:
Basic Education
REPUBLIC OF SOUTH AFRICA

**NATIONAL
SENIOR CERTIFICATE**

GRADE 12

AGRICULTURAL MANAGEMENT PRACTICES

NOVEMBER 2015 (R)

MARKS: 200

TIME: 3 hours

This question paper consists of 14 pages.

INSTRUCTIONS AND INFORMATION

1. This question paper consists of TWO sections.
2. Answer ALL the questions 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 answer and write only the letter (A–D) next to the question number (1.1.1–1.1.10) in the ANSWER BOOK, for example 1.1.11 A.

- 1.1.1 The intensity of rainfall will primarily have an influence on soil ...
- A degradation.
 - B fertility.
 - C texture.
 - D slope.
- 1.1.2 The planting of different types of crops one after the other in the same field:
- A Monoculture
 - B Crop rotation
 - C Horticulture
 - D Mixed cropping
- 1.1.3 Ploughing across the slope rather than along the slope is called ...
- A forming contour banks.
 - B unsustainable ploughing.
 - C ploughing that leads to soil erosion.
 - D contour ploughing.
- 1.1.4 The law of demand for products states that the ...
- A higher the price, the more products will be supplied.
 - B lower the price, the more products will be supplied.
 - C higher the price, the more products will be bought.
 - D lower the price, the more products will be bought.
- 1.1.5 The first step in the strategic planning process:
- A Define the situation.
 - B Evaluate the plan.
 - C Set goals and objectives for the business.
 - D Develop the vision and mission statements.

- 1.1.6 The characteristic that makes land a sound investment for the farmer:
- A The average rainfall in the area
 - B The distance from the market
 - C The land's production potential
 - D Market prices of produce
- 1.1.7 The net worth of a business is defined as the total ...
- A assets of the business minus the liabilities.
 - B liabilities of the business minus the assets.
 - C expenditure of the business minus the income.
 - D income of the business minus the expenditure.
- 1.1.8 An increased scarcity of farm labourers may be the result of ...
- A political stability.
 - B less attractive working conditions.
 - C a lack of skills.
 - D effective labour management.
- 1.1.9 The main reason for the cooling of agricultural products during distribution to various market outlets, is to ...
- A reduce its weight for easier transport.
 - B reduce its volume for easier transport.
 - C improve its taste for consumers.
 - D prevent it from perishing.
- 1.1.10 The legislation that regulates information on ingredients and nutritional values:
- A Standards Act, 1962 (Act 33 of 1962)
 - B Foodstuffs, Cosmetics and Disinfectants Act, 1972 (Act 54 of 1972)
 - C Agricultural Product Standards Act, 1990 (Act 119 of 1990)
 - D Regulations relating to the Labelling and Advertising of Foodstuffs (R146 of 2010) (10 x 2) (20)

- 1.2 Choose a description from COLUMN B that matches the term 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	Mechanisation	A	the process where the employer, employee and a union representative discuss an incident where an employee was drunk at the workplace, with the aim of reprimanding the employee
1.2.2	Natural resources		
1.2.3	Casual labourers	B	a manager uses a clock and time card for labourers
1.2.4	Advertising	C	used to determine the projected movement of funds in an enterprise
1.2.5	Computers	D	technology used to make payments over the Internet
1.2.6	Control	E	soil, rainfall, climate and water
1.2.7	Precision farming	F	labour, capital and information
1.2.8	Grading system	G	an agricultural marketing function aimed at promoting farm produce
1.2.9	Disciplinary action	H	budget for income and expenditure to indicate the profit or loss of an enterprise
1.2.10	Cash-flow budget	I	the worker is only appointed to clean the farm dam and then leaves the farm
		J	the farming system where the farmer uses modern technology, such as GIS, for land surveys
		K	the grouping of farm products according to quality
		L	switching from animal-driven implements to engine-driven implements

(10 x 2) (20)

- 1.3 Give the CORRECT agricultural 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 Capital that is required for investing in assets such as vehicles, equipment, breeding stock, dairy herds and machinery
- 1.3.2 The cost of labour which increases with every service rendered
- 1.3.3 The person who organises, makes decisions and takes the greater risk in a business
- 1.3.4 An autonomous association of persons united voluntarily to meet their social, economic and cultural needs and aspirations through a jointly owned and democratically controlled enterprise
- 1.3.5 The funds contributed to the farming business by the owner
- 1.3.6 The physical movement of farm products from the production site to points where consumers are located
- 1.3.7 The system whereby products of producers are placed together and handled in bulk by cooperatives
- 1.3.8 The amount of money that a financial institution charges for lending capital
- 1.3.9 All direct and indirect costs that the producer incurs to market farm products
- 1.3.10 The sum of the income from all the cash crops and livestock enterprises on the farm plus sundry farm income (10 x 1) (10)
- TOTAL SECTION A: 50**

SECTION B**QUESTION 2: PHYSICAL AND FINANCIAL PLANNING**

Start this question on a NEW page.

2.1 Temperature is an important factor of climate. It can directly or indirectly restrict agricultural production.

Describe FIVE ways in which temperature can restrict agricultural production. (5)

2.2 Discuss the influence of slope on crop production. (4)

2.3 Explain the effect of soil depth on crop production. (4)

2.4 State THREE factors that could cause a change in the composition of plant species that grow in the veld. (3)

2.5 Redraw the table below and complete it with the different forms of credit that can be given to farmers. Use the following THREE examples of credit to complete the table:

- Purchase of machinery
- Purchase of land
- Purchase of fertilisers

TYPES OF CREDIT FOR FARMERS	LONG-TERM CREDIT	MEDIUM-TERM CREDIT	SHORT-TERM CREDIT
Duration	(1)	(1)	(1)
Credit use	(1)	(1)	(1)

(6)

2.6 The pictures below represent different production methods in farming.



A



B

2.6.1 Identify the picture representing each of the following production methods in farming:

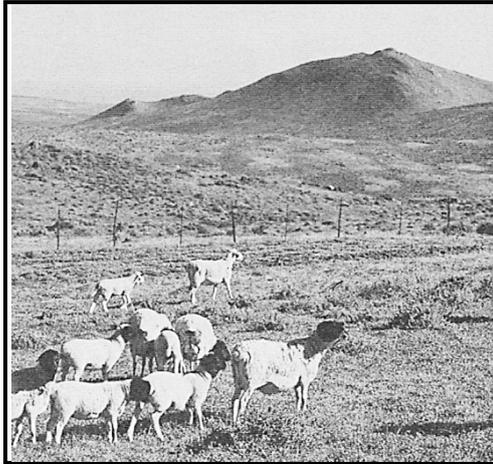
- (a) Subsistence farming
- (b) Precision farming (2)

2.6.2 Redraw the table below to motivate your answer to QUESTION 2.6.1 by referring to the type of equipment used. State TWO advantages of using the equipment in EACH production method.

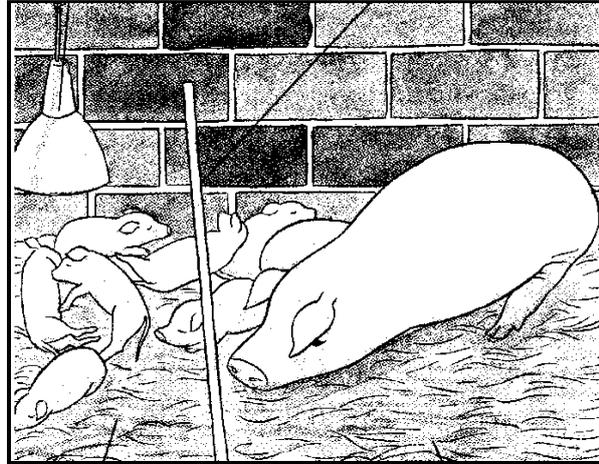
	PRECISION FARMING	SUBSISTENCE FARMING
Equipment used	(1)	(1)
TWO advantages	(2)	(2)

(6)

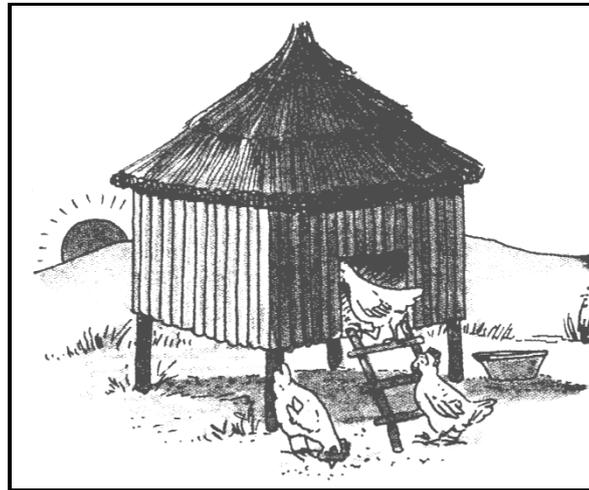
2.7 Study the pictures below and answer the questions that follow.



A



B



C

2.7.1 Identify the type of farming system represented by each picture (A–C). (3)

2.7.2 In which type of farming system are animals kept indoors but also given access to pasture outside the shelter? (1)

2.8 Read the scenario below and answer the questions that follow.

A pilot project was launched on four farms by the organisation Agri-AIDS. Workers that participate in the project are tested for HIV and given free anti-retroviral treatment, if necessary.



Name FOUR benefits for the farms whose workers participate in this project. (4)

2.9 A budget is a plan of the future income and expenses of a farm business. The following is a draft of a farm budget:

CROP PRODUCTION BUDGET

EXPECTED EXPENSES			
Item	Quantity	Value	Total price
Seed	2 kg	R40/kg	(a)
Fertilisers	850 kg	R280/50 kg	R4 760
Transport of fertilisers	17 bags	R5/bag	(b)
Pesticide	500 g	R187/500 g	R187
Wages for workers per week	4 workers	R400	(c)
Packaging materials	1 500 units	R1/unit	R1 500
Transport to markets	6 trips	R300/trip	R1 800
Total expected expenses			(d)
EXPECTED INCOME			
Item	Quantity	Value	Total price
Harvested crops	1 500 bags	R15/bag	(e)
Total expected income			

2.9.1 Calculate the missing amounts (a)–(e). (5)

2.9.2 Calculate the profit or loss. Motivate your answer. (4)

2.10 Indicate THREE aspects that should be considered by the farmer during planning to improve the efficiency of farm machinery. (3)
[50]

QUESTION 3: ENTREPRENEURSHIP, RECORDING, MARKETING, BUSINESS PLANNING AND ORGANISED AGRICULTURE

Start this question on a NEW page.

- 3.1 Name FIVE challenges for farmers who use farm gate marketing to sell their products. (5)
- 3.2 Explain the role of agricultural marketing legislation. (3)
- 3.3 Tabulate THREE differences between *marketing* and *selling*. (6)
- 3.4 Before approaching a bank or financial institution for a loan, a farmer must first develop a business plan.
- 3.4.1 Define the term *business plan*. (2)
- 3.4.2 Give reasons why a bank needs a business plan for an enterprise from a farmer. (4)
- 3.5 The production of agricultural products should be market-oriented. Producers have to know what consumers need, as well as what price they are prepared to pay.
- 3.5.1 Name THREE methods of price setting for agricultural products. (3)
- 3.5.2 State FOUR prerequisites of a market for the marketing of agricultural products. (4)
- 3.6 A processing plant buys cattle from a farmer at a price of R20/kg. The processing plant processes the meat, which adds value to the product, and then sells the processed meat with a 70% price increase to a chain store. The chain store adds 50% to the cost price before selling the meat to consumers.
- 3.6.1 Calculate the price of the product for the consumer at the point of sale. (4)
- 3.6.2 Describe the relationship between the marketing chain and the price of the product. (2)

- 3.7 A farmer recorded the performance of two seasonal workers in the table below.

SEASON	BAGS HARVESTED PER DAY	
	WORKER A	WORKER B
1	10	5
2	15	10
3	18	20
4	20	30

- 3.7.1 Draw a double bar graph to indicate the performance of the TWO workers. (6)
- 3.7.2 Suggest ONE possible reason for the poor performance of WORKER B during the first season. (1)
- 3.7.3 Name the worker that would most probably be offered a permanent appointment. Give TWO recommendations. (3)
- 3.8 Study the extract from a Balance Sheet below and answer the questions that follow.

Extract from the Balance Sheet of a crop-producing enterprise as on 30 December 2014

LIABILITIES	RANDS	ASSETS	RANDS
Current liabilities		Current assets	
Labourers' salaries for next month	23 500	Cash in hand	150 000
Medium-term liabilities		Medium-term assets	
Tractor loan outstanding	2 500	Tools and machinery	284 000

- 3.8.1 Calculate the percentage that tools and machinery contribute to the assets of the farm. (3)
- 3.8.2 State the negative effect of high farm mechanisation. (2)
- 3.9 Explain the term *recording* in agricultural management. (2)
- [50]**

QUESTION 4: HARVESTING, PROCESSING, MANAGEMENT AND AGRITOURISM

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

- 4.1 Redraw the table below to compare the different approaches to the harvesting process by a large-scale commercial farmer and a small-scale commercial farmer respectively. Both farmers use an extensive production system.

	LARGE-SCALE COMMERCIAL FARMER	SMALL-SCALE COMMERCIAL FARMER
Time management	(1)	(1)
Transport and handling	(1)	(1)
Storage	(1)	(1)

(6)

- 4.2 State FOUR critical components that need to be taken into consideration when designing packaging material for agricultural products. (4)
- 4.3 State FOUR characteristics of the ideal packaging or containers for agricultural products. (4)
- 4.4 Read the scenario below and answer the questions that follow.

A farmer plans the next season's production process. The main concern is the type of crop or combination of crops that should be produced for the specific season. To make the decision easier, the farmer compiles a budget to compare the different crops or combination of crops with each other. Different places to market the products and their respective prices are studied to ensure the best possible profit. The process includes the keeping of records on production and labourers (permanent and seasonal). If new crops are chosen, the labourers must be trained to obtain high yield. To ensure that the produce is sold, the farmer organises a farmer's market day as a promotion drive.

Classify the different management activities in the scenario above into the following categories:

- 4.4.1 Technical activities (1)
- 4.4.2 Commercial activities (1)
- 4.4.3 Financial activities (1)
- 4.4.4 Administrative and accounting activities (1)
- 4.4.5 Personnel management (1)
- 4.4.6 Communication activities (1)

- 4.5 The processing of agricultural products is part of value adding and it is a way of preserving food products.
- 4.5.1 Give FOUR reasons for preserving food. (4)
- 4.5.2 Name FOUR food-preserving methods where the development of micro-organisms is inhibited but NOT stopped. (4)
- 4.5.3 Describe FOUR food-preserving methods where micro-organisms are destroyed. (4)
- 4.6 Coordination is one of the most important aspects to ensure productivity in farming. State the FOUR types of coordination on a farm. (4)
- 4.7 State FOUR factors a farmer has to consider when harvesting should start. (4)
- 4.8 The farmer can play a significant role in educating others about agritourism. Support this statement with TWO reasons. (2)
- 4.9 Read the scenario below and answer the questions that follow.

FARMER A has a neat farming operation and is prepared to invest in the farm. The infrastructure and machinery are in an excellent condition due to good budgeting for maintenance. The farmer built new well-equipped homes for the workers. The farm has a time register and workers are often sent for skills development training. Labourers are given incentives for good work.

FARMER B will use money to fix breakages as they occur and there is no regular maintenance. Farm workers have to build their own houses. The farmer usually hires unskilled workers and does not even bother to train or show them how to handle the equipment. The farmer and labourers often argue about absenteeism, but an agreement is never reached.

- 4.9.1 Identify the managerial skills of FARMER A and motivate your answer by referring to the examples used in the scenario. (6)
- 4.9.2 Determine if it is possible for FARMER B to take disciplinary action against the workers for poor handling of equipment. Give a reason for your answer. (2)
- [50]**

TOTAL SECTION B: 150
GRAND TOTAL: 200