



basic education

Department:
Basic Education
REPUBLIC OF SOUTH AFRICA

NATIONAL SENIOR CERTIFICATE

GRADE 12

AGRICULTURAL MANAGEMENT PRACTICES

FEBRUARY/MARCH 2018

MARKS: 200

TIME: 3 hours

This question paper consists of 15 pages.

INSTRUCTION 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. 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 D.
- 1.1.1 A written plan that shows the future actions with regard to possible income and expenditures of a farming enterprise:
- A Budget
 - B Trial balance
 - C Balance sheet
 - D Cash flow statement
- 1.1.2 The farm management component that involves the grouping of actions that will improve the productivity of a farming enterprise:
- A Decision-making
 - B Coordination
 - C Organisation
 - D Control
- 1.1.3 The type of capital that a farmer uses to buy livestock and farming implements:
- A Fixed capital
 - B Floating capital
 - C Movable capital
 - D Working capital
- 1.1.4 The return received by a farming enterprise after all operating expenses have been paid:
- A Net farm income
 - B Farm profit
 - C Gross margin
 - D Variable cost
- 1.1.5 A written plan recording the production and financial decisions in a production enterprise:
- A Business plan
 - B Budget
 - C Business advertisement
 - D Business image

- 1.1.6 The relative change in quantity demanded associated with a relative change in price.
- A Inelastic demand
 - B Inelastic supply
 - C Demand elasticity
 - D Supply elasticity
- 1.1.7 The following does NOT affect an increase in local marketing costs:
- A Packaging of food
 - B Export tax
 - C Processing of food
 - D Marketing service
- 1.1.8 The person who buys products from producers, processors and other marketing intermediaries for resale:
- A Retailer
 - B Stockbroker
 - C Agent
 - D Wholesaler
- 1.1.9 The following marketing approach is used by cooperatives:
- A Buy in bulk and sell in small scale
 - B Buy in small scale and sell in small scale
 - C Buy in small scale, combine produce with other cooperatives and sell in bulk
 - D Buy in bulk and sell in bulk
- 1.1.10 ... is used for easier handling of agricultural products.
- A Packaging
 - B Processing
 - C Standardisation
 - D Grading
- (10 x 2) (20)

- 1.2 Choose a description from COLUMN B that matches a 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.

| COLUMN A | | COLUMN B | |
|----------|----------------------|----------|--|
| 1.2.1 | Employee | A | means of creating capital using profit and savings to finance farming activities |
| 1.2.2 | Sunlight | | |
| 1.2.3 | Blanching | B | amount of water in the atmosphere at a certain atmospheric pressure |
| 1.2.4 | Standardisation | | |
| 1.2.5 | Veld management | C | a source document issued when incorrect items are delivered |
| 1.2.6 | Educational tourists | D | graph on a computer indicating the daily maximum and minimum temperatures |
| 1.2.7 | Own capital | | |
| 1.2.8 | Credit note | E | climatic factor that influences the photosynthetic activity of a crop |
| 1.2.9 | Climate records | F | people who want to do exciting things while on holiday |
| 1.2.10 | Humidity | G | dividing grazing land into camps to allow the movement of animals between camps to avoid overgrazing |
| | | H | a group of people who visit places to do research in agriculture |
| | | I | the heating of milk at a temperature of 62 °C and to keep it at that temperature for 30 minutes |
| | | J | a factor that hampers the marketing of agricultural products in the case where the farmer lacks necessary knowledge |
| | | K | heating of vegetables and sometimes fruits in boiling water for a short period to eliminate enzymes and microbe population |
| | | L | person reporting to the head of a farming unit |

(10 x 2)

(20)

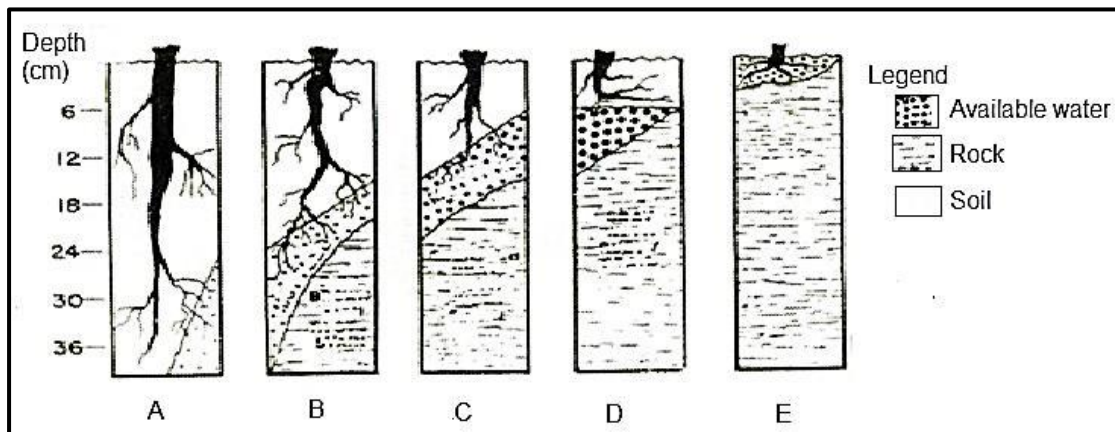
- 1.3 Give the CORRECT agricultural term for each of the following descriptions. Write only the term next to the question number (1.3.1–1.3.10) in the ANSWER BOOK, for example 1.3.11 Recording.
- 1.3.1 Credit required for the acquisition of movable capital, such as vehicles, equipment, breeding stock and machinery
- 1.3.2 The cost of labour or material which increases with every item produced or every service rendered
- 1.3.3 The process where the farmer ensures that the actual activities correspond with the production plan
- 1.3.4 An activity by farmers and processors to ensure that produce reaches every part of the country
- 1.3.5 The drive for behaviour that is caused by human characteristics, such as the quest for power, the need for the feeling of belonging or the desire for profit
- 1.3.6 The system where all the products produced are placed together and handled in bulk by the cooperative to sell the product
- 1.3.7 The costs that farm producers must incur from preparation of soils up to harvesting of the products
- 1.3.8 The function where a producer exchanges produce for capital
- 1.3.9 Starting a new business by innovative individuals who respond to opportunities in the industry
- 1.3.10 The entrepreneurial skills involving leadership, networking and teamwork (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 The diagram below represents soil depth in crop production.



2.1.1 Redraw the table below in the ANSWER BOOK to compare soil A and soil E with reference to the given criteria:

| CRITERIA | SOIL A | SOIL E |
|------------------------|--------|--------|
| Depth | | |
| Water infiltration | | |
| Drainage | | |
| Water-holding capacity | | |

(8)

2.1.2 Choose between legumes and cereal crops and indicate which ONE will grow the best in:

(a) Soil A (1)

(b) Soil B (1)

2.2 Give FOUR reasons why livestock farmers prefer sweet veld over sour veld for grazing. (4)

2.3 Describe THREE disadvantages of an intensive farming system on soil as a result of the overuse of water and agrochemicals. (3)

2.4 Redraw the table below in the ANSWER BOOK to classify different types of pastures into artificial (planted) and natural pastures.

Types of pastures:

- Clover
- Grassland
- Legumes
- Perennial grasses
- Scrub
- Savannah

| ARTIFICIAL (PLANTED) PASTURE | NATURAL PASTURE |
|---------------------------------|-----------------|
| | |

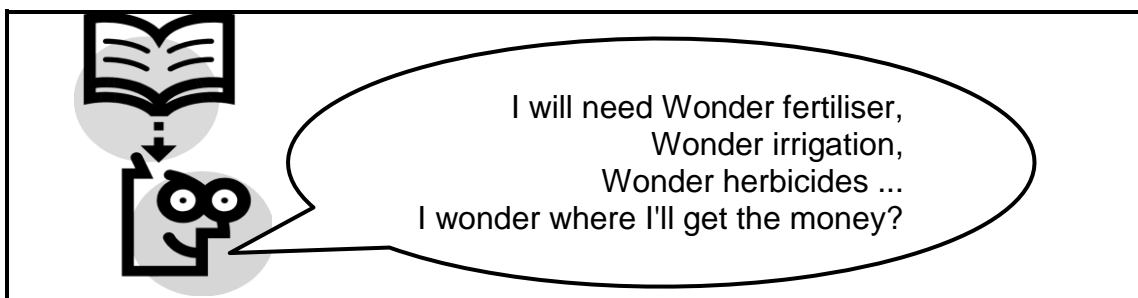
(6)

2.5 Farmers lose farm workers because of ill health. The result is that the farmer has to employ and train new workers which means cost have to be incurred.

2.5.1 Explain THREE methods that a farmer can use to reduce the risk of losing income due to the ill health of farm workers. (3)

2.5.2 Name THREE items that must be included in the ill-health policy and programme of a farm business. (3)

2.6 Study the cartoon below and answer the following questions.



2.6.1 Categorise the different types of capital mentioned in the cartoon above. (6)

2.6.2 Advise the farmer on how he/she can obtain extra money to purchase items needed on the farm. (1)

2.6.3 State THREE important requirements for a farm business to qualify for long-term credit. (3)

2.6.4 Briefly explain the difference between the following sources of capital:

(a) External sources (2)

(b) Internal sources (2)

- 2.7 Farmers should keep accurate farm records to enable them to manage the finances of the farm.
- 2.7.1 List FOUR prerequisites that enable the farm manager to compile the next Cash Flow Budget. (4)
- 2.7.2 Describe THREE valuable comparisons a farmer can make from the budget and the financial statement for the same period. (3)
- [50]**

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

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

3.1 A new small-scale farmer's labour force consists of seven permanent staff members. From time to time the farmer employs 20 seasonal workers. The farm manager must help with recordkeeping, especially for the labour force.

Name FIVE labour-related records that need to be kept. (5)

3.2 List FOUR data items that are reflected in source documents required to complete the farm's financial accounts. (4)

3.3 Use the information on a vegetable enterprise below to complete the Income Statement for the year ending 31 December 2017.

Soil preparation R10 000, harvesting R6 000, casual labour R8 000, seeds R6 500, fertiliser R10 000, disease, pest and weed control R10 000, repairs and maintenance R15 500, packaging and marketing R4 000, sale of carrots R11 500, sale of onions R28 000, sale of tomatoes R20 000, sale of cabbages R9 400

3.3.1 Draw up an Income Statement using the headings in the table below. Write the information given above in the appropriate columns and calculate the totals.

INCOME STATEMENT FOR YEAR ENDING 31 DECEMBER 2017

| INCOME | VALUE (Rand) | EXPENDITURES | VALUE (Rand) |
|--------|-----------------|--------------|-----------------|
| | | | |
| TOTAL | | TOTAL | |

(4)

3.3.2 Calculate the profit or loss for the year ending 31 December 2017. Indicate whether it was a profit or loss. (2)

3.4 Define the following agricultural terms as they are used in financial management:

3.4.1 Break-even point (1)

3.4.2 Debtor (1)

3.5 The Balance Sheet is a measure of what a business is worth and where the total assets are equal to the total liabilities.

A crop farmer had the following balances in his/her books on 31 August 2017:

| ITEMS | AMOUNTS |
|---------------------|----------|
| Cash | R2 000 |
| Capital | R115 000 |
| Land | R100 000 |
| Bank overdraft | R15 000 |
| Stocks | R20 000 |
| Debtors | R13 000 |
| Mortgage loan | R120 000 |
| Implements | R25 000 |
| Second-hand tractor | R50 000 |
| Buildings | R50 000 |
| Creditors | R10 000 |

Use the data in the financial records above to fill in the missing information in the balance sheet below. Write down the information next to the question number (3.5.1–3.5.6) in the ANSWER BOOK.

| ASSETS | VALUE | LIABILITIES | VALUE |
|----------------|----------|---------------------|----------|
| Fixed assets | | Capital | R115 000 |
| | 3.5.1 | | |
| Buildings | R50 000 | Mortgage loan | R120 000 |
| | 3.5.2 | | |
| Implements | R25 000 | | |
| | | | |
| Current assets | | Current liabilities | |
| | R20 000 | | 3.5.5 |
| | 3.5.3 | Bank overdraft | R15 000 |
| | 3.5.4 | | |
| | | | |
| Total | R260 000 | Total | 3.5.6 |

(6)

3.6 A strategic marketing plan is part of a business plan for an agricultural enterprise. It integrates all business activities and resources logically to meet customer needs and to generate profit. To eliminate mistakes during the marketing process it is important to acquire the correct information.

3.6.1 Give reasons why it is important to compile a strategic marketing plan for an agricultural enterprise. (2)

3.6.2 Compile a list of questions that you would use to collect information for a strategic marketing plan. (5)

3.7 A business plan is important to direct a new business.

3.7.1 Describe FOUR basic features of a business plan in relation to the product. (4)

3.7.2 Name FOUR aspects that a farmer will consider with regard to the place to sell his/her agricultural products. (4)

3.8 The table below represents the supply and demand of a crop.

| PRICE (R/kg) | QUANTITY DEMANDED PER WEEK (kg) | QUANTITY SUPPLIED PER WEEK (kg) |
|-----------------|------------------------------------|------------------------------------|
| 4 | 600 | - |
| 8 | 500 | 100 |
| 12 | 400 | 200 |
| 16 | 300 | 300 |
| 20 | 200 | 400 |

3.8.1 Draw a line graph of the data in the table above that represents the supply and demand for this crop. (5)

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

3.8.3 Briefly discuss TWO possible reasons for the shortage of the product in the market at specific times. (2)

3.8.4 Briefly explain the TWO strategies the farmer could use to deal with product shortages at certain times as mentioned in QUESTION 3.8.3. (4)

[50]

QUESTION 4: HARVESTING, PROCESSING, MANAGEMENT AND AGRITOURISM

Start this question on a NEW page.

- 4.1 The planning stage is critical for the success of the harvest.
- 4.1.1 List FOUR factors that a farmer should take into consideration during the harvesting of a crop. (4)
- 4.1.2 Describe TWO basic principles of post-harvest handling of a crop. (2)

- 4.2 There is a variety of storage methods for different agricultural crops. In large-scale commercial farming, storing of the majority of crops takes place away from the farm at mills or depots or cooperative packing stores.



- 4.2.1 Identify the storage facility shown in the picture above. (1)
- 4.2.2 State THREE environmental factors that can be controlled in the storage facility mentioned in QUESTION 4.2.1. (3)

4.3 Redraw the table below in the ANSWER BOOK. To demonstrate your understanding of the concepts of sorting and grading, place the statements listed below under the correct headings in the table.

- Removal of undesirable additional materials, for example leaves or stones, at first sight
- The assessment of a number of characteristics of a product to obtain an indication of its overall quality
- An expensive process due to the long procedure of setting standards
- Separation of raw materials into categories on the basis of shape, size, weight, image and colour
- Segregating grains, fruit or vegetables into marketable and unmarketable products
- Requires skilled personnel

| SORTING | GRADING |
|---------|---------|
| | |
| | |
| | |

(6)

4.4 The demand for processed agricultural products is higher than for raw agricultural products.

4.4.1 State THREE fermentation processes that can be used to preserve products.

(3)

4.4.2 Cooling is one of the processes to preserve agricultural products. Explain the effect of moisture in the cooling process.

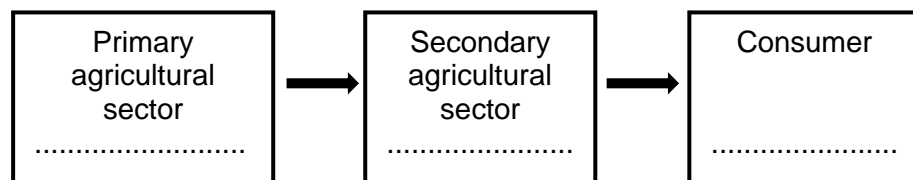
(2)

4.5 A schematic presentation of an agribusiness chain can be drawn from the primary agricultural sector to the secondary agricultural sector and to the consumer.

4.5.1 Classify the following into the correct agricultural sector:

meat processing; crop farming; animal production; butchery;
supermarket; fresh produce market

Use only ONE enterprise as an example to draw the schematic presentation in your ANSWER BOOK using the following format:



(3)

4.5.2 State THREE tertiary-sector inputs that assist the primary and secondary sector in handling and marketing produce to the consumer.

(3)

4.6 State THREE main functions of packaging materials in the handling of perishable products. (3)

4.7 Name TWO factors that will indicate the viability of value-adding of products on a farm. (2)

4.8 Modern tourists do not want to lounge around and read books when they are on holiday; they want experiences. The Rooibos Route was launched by two creative sisters, a team of hardworking people, a website and the tourism industry.

'What we realised with the Rooibos Tea House was that tourists do not want to simply buy tea. They want to see and feel the tea plants in their natural state, they want to learn about the harvesting and curing of the final product and they want to know everything about how the green plant becomes red tea in a bag,' says Stander. 'We just wanted to make it easier for tourists who have an interest in the rooibos industry to plan a trip during which they can learn about the industry while still relaxing in beautiful surroundings.'

[Adapted from *Rooibosroete/Rooibos Route*]

4.8.1 Define the term *product route* as it is used in agritourism. (2)

4.8.2 Identify TWO activities in the scenario that are of interest to tourists. (2)

4.8.3 Give THREE aspects that illustrate the educational potential of the agritourism venture above. (3)

4.8.4 Identify THREE entrepreneurial characteristics displayed in the scenario above. (3)

4.9 In modern farming ventures, the management of a farm has become the main determinant for a successful and economically viable enterprise.

4.9.1 Briefly discuss FOUR roles of the farm manager in maintaining the financial viability of an agricultural enterprise to achieve financial sustainability. (4)

4.9.2 Name the FOUR basic types of coordination. (4)

[50]

TOTAL SECTION B: 150
GRAND TOTAL: 200