



# basic education

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Department:  
Basic Education  
**REPUBLIC OF SOUTH AFRICA**

## **SENIOR CERTIFICATE EXAMINATIONS**

**AGRICULTURAL MANAGEMENT PRACTICES**

**2018**

**MARKS: 200**

**TIME: 3 hours**

**This question paper consists of 12 pages.**

**INSTRUCTIONS AND INFORMATION**

1. This paper consists of TWO sections.
2. Answer ALL the questions in the ANSWER BOOK.
3. Read the question 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. Start EACH question on a NEW page.
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 numbers (1.1.1 to 1.1.10) in the ANSWER BOOK, e.g. 1.1.11 D.

1.1.1 ... is the most valuable natural resource that can be utilised as animal feed.

- A Soil
- B Climate
- C Vegetation
- D Water

1.1.2 The soil property that is changed with the addition of organic material to the soil:

- A Texture
- B Depth
- C Slope
- D Structure

1.1.3 A farming system where the produce is only for the needs of the family:

- A Intensive farming
- B Subsistence farming
- C Extensive farming
- D Commercial farming

1.1.4 A person who identifies a business opportunity, has the courage to take a risk and is able to manage the enterprise:

- A A farm worker
- B An entrepreneurship
- C An entrepreneur
- D A farm manager

1.1.5 A document that keeps track of all female animals that have given birth:

- A Breeding record
- B Budget
- C Inventory
- D Feed record

- 1.1.6 The farm management principle which is characterised by the comparison of performance and expected results:
- A Planning
  - B Control
  - C Implementing
  - D Motivation
- 1.1.7 The process when farm products are advertised and transported from the farm to outlets for consumers to buy:
- A Selling
  - B Buying
  - C Support
  - D Marketing
- 1.1.8 The price of the product that settles at the point where demand for a product is equal to the supply of the same product:
- A Market equilibrium
  - B Demand price
  - C Supply price
  - D Equilibrium price
- 1.1.9 Actions that will improve the agribusiness chain include:
- (i) Improving the roads
  - (ii) Shortage of storage facilities
  - (iii) Good market information
  - (iv) Using cold storage to prevent loss
- A (i), (ii) and (iii)
  - B (i), (iii) and (iv)
  - C (ii), (iii) and (iv)
  - D (i), (ii) and (iv)
- 1.1.10 A method that a farmer can use to create capital from the farm:
- A Grant
  - B Interest
  - C Selling produced products
  - D Collateral
- (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 numbers (1.2.1 to 1.2.10) in the ANSWER BOOK, e.g. 1.2.11 M. Use each description in COLUMN B only ONCE.

COLUMN A		COLUMN B	
1.2.1	Worker shortages	A	indicates the mission and vision statement of a farm business
1.2.2	Assets	B	display area in an agricultural shop to show the relevant products
1.2.3	Contracted marketing	C	determines the ease and speed at which the water moves through the soil
1.2.4	Source document	D	property with financial value that the farmer owns
1.2.5	Soil texture	E	general expenses of a farm enterprise
1.2.6	Value adding	F	gathering information about the performance of the farm
1.2.7	Business plan	G	associated with labour as a production factor
1.2.8	Overhead costs	H	providing a tasting session for consumers and/or handing out promotional samples or information
1.2.9	Trade fairs and exhibitions	I	consists of a group of farmers working together as a cooperative
1.2.10	Monitoring	J	packaging and processing to increase the selling price of a product
		K	contains the date, amount and description of a financial transaction
		L	provides secured markets and prices

(10 x 2)

(20)

- 1.3 The following statements are INCORRECT. Change the UNDERLINED word(s) to make the statements correct. Write your answer next to the question numbers (1.3.1 to 1.3.10) in the ANSWER BOOK, e.g. 1.3.11 Fixed capital.
- 1.3.1 Soil quality is collected for description, analysing and measuring.
- 1.3.2 GIS is a technical tool in precision farming which is used to pin point the exact location of the driverless tractor.
- 1.3.3 The strength of a farming business is indicated when there is not enough funds to run the enterprise.
- 1.3.4 The financial activity of the farm manager is to keep records of labour and production.
- 1.3.5 Monitoring is a prerequisite for the implementation of policies and the achievement of aims and objectives.
- 1.3.6 The whole farm budget compares the budgets for two or more farming practices in a specific enterprise.
- 1.3.7 In the organogram of a commercial farm, the farm manager has direct jurisdiction over the supervisors of the general workers of that specific enterprise.
- 1.3.8 Daily planning is a way of increasing productivity by having more work completed per labour unit.
- 1.3.9 Breeding records is the indication of the productivity of young livestock animals from weaning age to two years old.
- 1.3.10 Marketable livestock is an example of a fixed asset. (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 Mechanisation implies the partial replacement of labour by making a capital investment.
- 2.1.1 Name FOUR factors farmers should consider when deciding to introduce machinery in their farming practices. (4)
- 2.1.2 Briefly discuss FOUR reasons why farmers would rather use machinery than manual labour. (4)

- 2.2 Land use differs from one area to another. There are factors, such as soil depth, pH, drainage and slope, which can affect the use of land negatively. Some of these limiting factors can be corrected, e.g. breaking impermeable layers, planting vegetation strips, increasing the organic matter content of the soil, opening waterways and the application of gypsum to brackish soils.

Use the information in the passage above and make a direct deduction from the correction method and the soil characteristics influenced. Redraw and complete the table in your ANSWER BOOK.

CORRECTION METHOD	SOIL CHARACTERISTIC
Breaking impermeable layers	
Planting of vegetation strips	
Opening waterways	
Apply gypsum	

- 2.3 Name THREE factors which influence land use for livestock grazing. (3)
- 2.4 Classify the descriptions below according to the type of capital and the term of credit (short, medium or long term) as used in agriculture:
- 2.4.1 Monthly account at the veterinarian in town (2)
- 2.4.2 Production loan at the cooperative to buy seeds and fertiliser (2)
- 2.4.3 Mortgage at a commercial bank, payable over a period of 20 years, to obtain more land to expand the farm (2)
- 2.4.4 Loan at a commercial bank, payable over a period of 60 months, to buy new implements (2)

2.5 A budget is a detailed financial plan indicating the expected income and expenditure for the near future.

2.5.1 Give TWO important elements of a farm budget. (2)

2.5.2 Compile a budget for a farm enterprise of your choice.  
**(You have to indicate your enterprise to receive marks.)**

The content of the budget should include the following:

(a) Heading and timeframe (period) (2)

(b) Content – at least FOUR entries

Use the following table to assist you.

ITEM	NUMBER	UNIT PRICE	TOTAL PRICE

(4 x 2) (8)

2.6 A farmer does a soil analysis in a specific crop field. The following results were obtained:

- Type of soil – sandy loam
- Soil reaction – pH = 6,0
- Magnesium – less than 0,03 p.p.m. (Ideal magnesium level – 3 p.p.m.)
- Field water capacity – 15%

2.6.1 Name TWO methods this farmer can use to increase the field water capacity of the soil. (2)

2.6.2 Describe FOUR ways to improve the soil reaction. (4)

2.7 Discuss THREE negative effects associated with the excess use of herbicides. (6)

2.8 Name and discuss the negative aspects of a farming practice where a farmer plants the same crop on the same land consecutively. (3)

**[50]**



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

Start this question on a NEW page.

- 3.1 Name the source document that is provided for the following transactions:
- 3.1.1 When goods are sold on credit (1)
- 3.1.2 Proof of a deposit made into the bank account (1)
- 3.1.3 To acknowledge that money has been received by the business (1)
- 3.1.4 Consumables bought for cash at an agricultural convenient store (1)
- 3.2 The Basic Conditions of Employment Act, 1997 (Act 75 of 1997) prescribes certain conditions which must be respected by the farmer.
- 3.2.1 Briefly explain the requirements of EACH of the following conditions:
- (a) Working hours per week (2)
- (b) Overtime (2)
- 3.2.2 State SIX items of information about each farm worker the farmer has to record daily. (6)
- 3.3 Briefly describe the term *agricultural business plan*. (4)
- 3.4 Categorise the following sources of information used during market research into primary research sources and secondary research sources. Each source can ONLY be used ONCE.
- Magazines
  - Interviews
  - Newspapers
  - Questionnaires
  - Observing competitors
  - Producer organisations
- 3.4.1 Primary research sources (4)
- 3.4.2 Secondary research sources (2)

- 3.5 The following is a Balance Sheet for a mixed livestock farmer for the period ended 30 October 2017.

**Balance Sheet as at 30 October 2017**

<b>LIABILITIES</b>	<b>VALUE (R)</b>	<b>ASSETS</b>	<b>VALUE (R)</b>
Current liabilities	50 000	Current assets	80 000
Medium-term liabilities	120 000	Medium-term assets	100 000
Fixed liabilities	500 000	Fixed assets	750 000
Net worth			
<b>TOTAL LIABILITIES</b>		<b>TOTAL ASSETS</b>	

- 3.5.1 Describe the aim of a Balance Sheet as one of the financial statements of a farm business. (2)
- 3.5.2 Use the correct formula and calculate the net worth of this farming enterprise. (4)
- 3.5.3 Briefly discuss the viability of this enterprise. (2)
- 3.6 The information below was extracted from a crop farmer's financial records. The crop was produced on 1 ha of land.

• 14/06 – 4 bags of seed @ R170,00/bag
• 22/06 – 8 bags of fertiliser @ R285,00/bag
• 01/07 – 10 kg pest control chemicals @ R120,00/kg
• 14/10 – 800 boxes of farm produce @ R29,50/box
• 21/10 – 30 boxes of farm produce @ R35,00/box
• 22/10 – transport costs @ R720,00
• 28/10 – labour cost @ R3 200/month
Labourer paid each month for the period from planting to harvesting.

- 3.6.1 Compile an Income Statement for this farmer. Use the following table and headings:

<b>EXPENDITURE</b>			<b>INCOME</b>		
<b>DATE</b>	<b>ITEM</b>	<b>AMOUNT</b>	<b>DATE</b>	<b>ITEM</b>	<b>AMOUNT</b>

- 3.6.2 Use the information obtained in QUESTION 3.6.1. Determine whether the farmer made a profit or a loss. Show your answer using calculations. (3)
- 3.7 Differentiate between:
- 3.7.1 A Cash Flow Statement (2)
- 3.7.2 An Income Statement (3)
- 3.8 Briefly explain how climate records influence decision making in the farm planning process. (2)

**[50]**

**QUESTION 4: HARVESTING, PROCESSING, MANAGEMENT AND AGRITOURISM**

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

- 4.1 Farmers use post-harvest storing facilities so that plant products are available during times when market prices are higher. The quality of the product must be maintained throughout the storage period.
- 4.1.1 State FOUR negative effects of moisture and high temperature on stored plant products. (4)
- 4.1.2 Name THREE methods that can be used to minimise damage to stored plant products in storage facilities. (3)
- 4.2 Use the descriptions below to identify the food preservation method used:
- 4.2.1 Preparation of vegetables before freezing by immersing them in boiling water for a short period (1)
- 4.2.2 Any process that eliminates all forms of life and other biological agents present in food (1)
- 4.2.3 The use of ultraviolet light (UV) (1)
- 4.2.4 Treating food and drinks, such as milk or juice, by heating it to a certain point to kill pathogenic organisms but not influencing the flavour of the food (1)
- 4.2.5 Separating solids from liquids, e.g. fruit juice (1)
- 4.3 Name FIVE requirements for workers in an agricultural processing factory with reference to the application of the Occupational Health and Safety Act, 1993 (Act 85 of 1993). (5)
- 4.4 State FIVE requirements of suitable wrapping material for perishable food products. (5)
- 4.5 Discuss FOUR motivation techniques that develop a sense of ownership and responsibility to increase the productivity of farm workers. (8)

- 4.6 Complete the table below by indicating whether the marketing channel is informal or formal. Each marketing channel can ONLY be used ONCE.

<ul style="list-style-type: none"> <li>• Export markets</li> <li>• Cooperatives</li> <li>• Farm stalls</li> <li>• Spaza shops</li> <li>• Fresh produce markets</li> <li>• Hawkers</li> </ul>
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INFORMAL MARKETING	FORMAL MARKETING

(6)

- 4.7 Farmers market their products at more than one place to reduce marketing risks. Explain how this marketing strategy can reduce the marketing risk.

(4)

- 4.8 Farm managers make decisions for their farm enterprises in order to identify the actual problems and their solutions.

Draw a flow chart indicating the SIX steps of decision-making in sequence.

(7)

- 4.9 Name THREE types of agritourism.

(3)

**[50]**

**TOTAL SECTION B: 150**  
**GRAND TOTAL: 200**