



basic education

Department:
Basic Education
REPUBLIC OF SOUTH AFRICA

**NATIONAL
SENIOR CERTIFICATE**

GRADE 12

AGRICULTURAL MANAGEMENT PRACTICES

NOVEMBER 2017

MARKS: 200

TIME: 3 hours

This question paper consists of 13 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. 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 Soils with no restricting layers, for example no plough sole, are beneficial for an improved ...

- A soil structure.
- B pH balance.
- C root development.
- D soil texture.

1.1.2 A variety of production enterprises on the same farm is known as ...

- A crop rotation.
- B diversification.
- C specialisation.
- D pasture rotation.

1.1.3 The type of labourer employed on a farm with 21 days annual leave:

- A Permanent labourer
- B Contract labourer
- C Seasonal labourer
- D Occasional labourer

1.1.4 The farming system where animals graze in large camps of natural pastures with no supplementary feeding:

- A Extensive farming
- B Intensive farming
- C Semi-intensive farming
- D Precision farming

1.1.5 The financial statement that will determine the liquidity of a farm for a certain period:

- A Inventory
- B Income statement
- C Trial balance
- D Balance sheet

- 1.1.6 The management principle where a farmer has to choose from different options or solutions for a problem and implement them:
- A Planning
 - B Coordination
 - C Evaluation
 - D Decision-making
- 1.1.7 A processing method where high temperatures are used on vegetables for a very short period:
- A Sterilisation
 - B Pasteurisation
 - C Blanching
 - D Grilling
- 1.1.8 The aim of the Basic Conditions of Employment Act, 1997 (Act 75 of 1997) is that labourers will ...
- A be issued with protective clothing if pesticides are sprayed.
 - B work the correct working hours.
 - C receive compensation if injured in the execution of their duties.
 - D receive training to improve skills.
- 1.1.9 A farming system where all the animals on the farm receive the correct amount of feed every day according to production, reproduction and weight:
- A Subsistence farming
 - B Extensive farming
 - C Precision farming
 - D Commercial farming
- 1.1.10 The marketing channel where farmers use buyers that bid for the produce:
- A Internet
 - B Farm gate marketing
 - C Auctions
 - D Export marketing
- (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	Soil durability	A	technology and materials used to cover the harvested product before selling
1.2.2	Soil water capacity		
1.2.3	Occupational Health and Safety Act, 1993 (Act 85 of 1993)	B	uses brochures or posters to inform consumers of farm products
1.2.4	Bank overdrafts	C	an effective farming method to ensure sustainable and profitable food production
1.2.5	Production risk	D	soil cannot be destroyed
1.2.6	Commercial farming	E	type of credit obtained by a farmer
1.2.7	Packaging	F	assists a farmer to determine the area (ha) of a land
1.2.8	Advertising		
1.2.9	Green marketing	G	employer and employee must ensure that all precautionary measures have been taken before executing a task
1.2.10	Global positioning system (GPS)	H	ability of soils to retain water against gravity
		I	physical labour, supervisory and management functions
		J	drought and unexpected weather phenomena in a production season
		K	sells organic produce in recyclable containers
		L	measures the response of profit after the price change

(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 A type of capital that is invested in items of a permanent value

1.3.2 The setting of a machine to work at the correct tempo

1.3.3 A farm budget which concentrates on a single farming enterprise

1.3.4 A type of veld that will grow in alkaline soils in low rainfall areas

1.3.5 The growth of a new business venture as a result of innovative individuals who respond to opportunities in the market

1.3.6 A recording method used to keep track of workers' working hours

1.3.7 The proposed date by which a product should have been used that appears on the packaging of agricultural products

1.3.8 A management principle that must be followed before any task on a farm can start

1.3.9 Setting of criteria to categorise products according to quality

1.3.10 A source document used to receive the agricultural items bought

(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 A crop farmer obtained data from a cropping field that describes the nature of the soil. The analysis indicates that if irrigation is applied, runoff will occur.
- 2.1.1 Name THREE basic soil requirements for irrigation purposes. (3)
- 2.1.2 Briefly explain THREE methods a farmer can use to reduce the water runoff. (3)
- 2.2 Explain the effect of adding organic material to organically rich soils and organically poor soils. Refer to the TWO physical aspects given below.

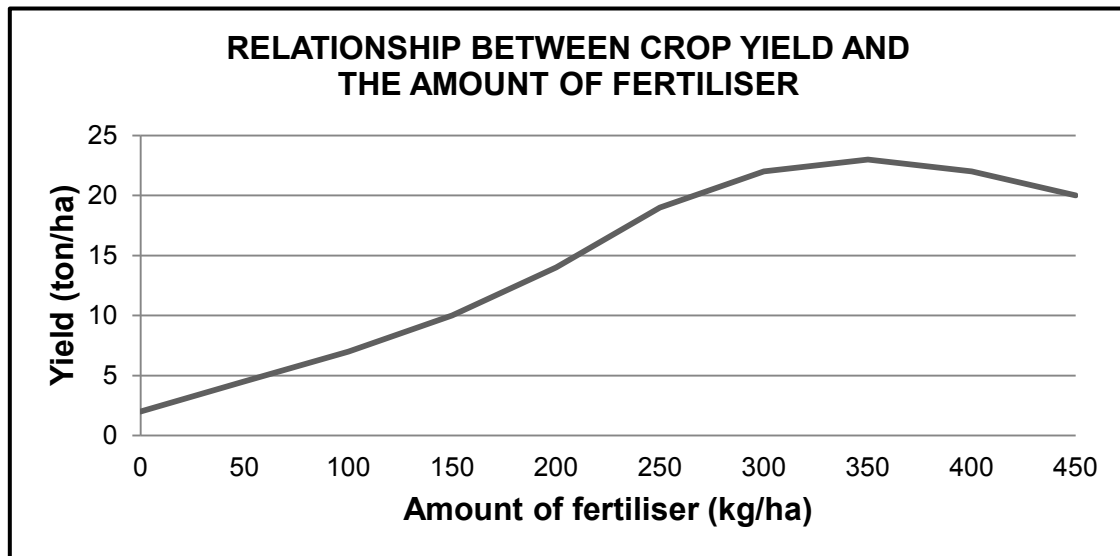
Redraw and complete the table in the ANSWER BOOK.

PHYSICAL ASPECTS	ORGANICALLY RICH SOILS	ORGANICALLY POOR SOILS
Soil temperature		
Soil erosion		

(4 x 1) (4)

- 2.3 Natural pastures are the most economical source of feed for grazing animals. An effective way to improve the productivity of natural pastures is to use a camp system.
- 2.3.1 Discuss FOUR reasons why a livestock farmer should use a camp system on natural pastures. (4)
- 2.3.2 State FOUR practices that lead to the deterioration of the veld. (4)
- 2.4 Briefly define the following sources of capital:
- 2.4.1 Own capital (1)
- 2.4.2 Credit (1)
- 2.4.3 Production capital (1)

- 2.5 The graph below shows the relationship between crop yield and the amount of fertiliser applied.



- 2.5.1 Identify the economic characteristic of soil, shown in the graph above. (1)
- 2.5.2 Briefly explain why the graph does NOT start at a yield of 0 ton/ha. (3)
- 2.6 Describe FOUR methods that farmers may use to increase the productivity and sustainable production of a specific cultivated field. (4)
- 2.7 Labour refers to a worker selling an activity to the owner of the farm in exchange for a wage.
- 2.7.1 Name THREE functions of a hired employee. (3)
- 2.7.2 Describe FOUR methods that farmers may use to improve the conditions on the farm for their workers to adhere to the Occupational Health and Safety Act, 1993 (Act 85 of 1993). (4)
- 2.8 Briefly explain the effect of the incorrect calibration of pesticide and herbicide sprayers on the degradation of natural resources. (3)

2.9 Study the budget for a mixed farm below.

EXPENDITURE		INCOME	
ITEM	Amount (R)	ITEM	Amount (R)
LIVESTOCK			
Rams	100 000	Old rams	50 000
Feed	320 000	Old ewes	150 000
Veterinary treatment	100 000	Mutton	200 000
Wool shearing	1 800	Sheep	500 000
Transport	16 200	Manure	20 600
Abattoirs	15 000	Wool	95 400
Total costs		Total returns	
CROPS			
Water tax (irrigation)	10 200	Raw crop product	35 500
Fertiliser	33 000	Processed product	65 000
Seeds	5 000	Compost	34 000
Labour	25 000	Haylage	32 500
Pesticides	20 000		
Commission	15 000		
Transport	19 800		
Total costs		Total returns	
TOTAL EXPENDITURE		TOTAL INCOME	

- 2.9.1 Identify the type of budget represented above. Motivate your answer. (2)
- 2.9.2 Give TWO reasons for compiling a budget for a farming enterprise. (2)
- 2.9.3 Determine the following items from the data in the budget above:
- (a) Total costs for the livestock enterprise (1)
 - (b) Total returns for the livestock enterprise (1)
 - (c) Total costs for the crop enterprise (1)
 - (d) Total returns for the crops enterprise (1)
- 2.9.4 Calculate the net profit or loss for this farm. Indicate whether it is a profit or a loss. Show ALL calculations. (3)

[50]

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

Start this question on a NEW page.

3.1 Every farmer should be an entrepreneur.

3.1.1 Define the term *entrepreneur*. (4)

3.1.2 State FOUR criteria that should be considered before starting an agricultural business. (4)

3.2 The SWOT analysis gives insight into the challenges the farming entrepreneur faces in a farming business venture.

Tabulate and describe EACH component of the SWOT analysis. Use the table format below.

Components	Description
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(8)

3.3 Listed below are activities of the direct marketing of farm produce to a retailer.

storage; packaging; processing; specialised transport; harvesting; grading

Name ANY product of your choice, rearrange the activities above and give an appropriate reason for the order of EACH activity for your product. (10)

3.4 Name TWO pricing objectives guiding the pricing decisions of agricultural products. (2)

3.5 During full production a farmer produces 2 000 kg of a product per week, ready to be marketed. Market A is a small market closer to the farm (50 km) and Market B is a big market further away (70 km). The transport cost is R12,50/km. At Market A there is the risk that only 70% of the produce will be sold, in contrast to Market B where everything will be sold. The produce will most likely be ready for the market during weeks three and four.



- 3.5.1 Name TWO main factors that determine the price of agricultural produce. (2)
- 3.5.2 Calculate the possible profit at Market A during the third week, taking the risk into account. Show ALL calculations. (5)
- 3.5.3 Calculate the possible profit at Market B during the third week. Show ALL calculations. (3)
- 3.5.4 Make a recommendation to the farmer based on the highest profit during the month, as indicated on the graph. (3)

3.6 The following are the financial records of a crop farmer as at the end of July:

ITEM	VALUE (R)
Property	1 800 000
Creditors	800 000
Plants and equipment	350 000
Inventory	2 000
Debtors	300 000
Mortgage bond	200 000

3.6.1 Arrange the items in the table above according to the headings in the table below.

Current assets	Non-current assets	Current liabilities	Non-current liabilities

(6)

3.6.2 Name the type of farm record that is prepared from the assets and liabilities of the farm.

(1)

3.6.3 Calculate the net worth of the farm if the assets are R2 900 000 and the liabilities are R1 200 000. Show ALL calculations.

(2)
[50]

QUESTION 4: HARVESTING, PROCESSING, MANAGEMENT AND AGRITOURISM**Start this question on a NEW page.**

- 4.1 The packaging and labelling of farm products are controlled by food and marketing legislation.
- 4.1.1 Name FIVE specifications regarding labelling. (5)
- 4.1.2 State FOUR aspects addressed by the National Health Act, 2003 (Act 61 of 2003) regarding the supply of agricultural products. (4)
- 4.2 Distinguish between the following food terms:
- 4.2.1 Fermentation (2)
- 4.2.2 Decomposition (2)
- 4.3 Give THREE examples where filtration will be part of food processing. (3)
- 4.4 Name and describe THREE factors that influence the processing of agricultural products. (6)
- 4.5 An organogram is needed in an agricultural business enterprise to show an employee who his/her supervisor is.
- Use the information below to draw a typical agricultural organogram.
- Supervisor of a production unit
 - Employee
 - Farm owner
 - Farm manager (4)
- 4.6 Control is an important principle of the management process.
- 4.6.1 Define the term *control*. (2)
- 4.6.2 Briefly explain how control will be used in an enterprise as a managerial principle. (2)
- 4.6.3 Explain how quality assurance will be done during control. (1)
- 4.7 Briefly explain FOUR reasons for planning. (4)
- 4.8 Describe THREE factors of decision-making on which the functioning of a farm depends. (3)
- 4.9 Name and describe the TWO aspects of organisation. (5)
- 4.10 State FIVE activities that contribute to agritourism. (5)
- 4.11 Describe TWO roles of a farmer in agritourism. (2)

[50]**TOTAL SECTION B: 150**
GRAND TOTAL: 200