



education

Department:
Education
REPUBLIC OF SOUTH AFRICA

**NATIONAL
SENIOR CERTIFICATE**

GRADE 12

**AGRM.1
AGRICULTURAL MANAGEMENT PRACTICES
NOVEMBER 2009**

MARKS: 200

TIME: 2½ hours

This question paper consists of 18 pages and an answer sheet.

AFTERNOON SESSION



INSTRUCTIONS AND INFORMATION

1. This question paper consists of FOUR questions. Answer ALL the questions.
2. SECTION A (QUESTION 1) must be answered on the attached ANSWER SHEET.
3. SECTION B (QUESTIONS 2 to 4) must be answered in the ANSWER BOOK.
4. Start each question from SECTION B on a NEW page.
5. Read the questions carefully and answer only what is asked.
6. Number the answers correctly according to the numbering system used in this question paper.
7. Place your ANSWER SHEET for SECTION A (QUESTION 1) inside the front cover of the ANSWER BOOK.
8. 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 make a cross (X) in the block (A – D) next to the question number (1.1.1 – 1.1.10) on the attached ANSWER SHEET.

Example:

1.1.11	<input checked="" type="checkbox"/> A	B	C	D
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- 1.1.1 ONE of the following is NOT taken into account when a farmer accesses land for a specific primary enterprise:
- A Evaluation of the processing line
 - B Climatic suitability
 - C Drainage
 - D Soil suitability
- 1.1.2 Increasing the production output of a commercial farming system will mainly depend on ...
- A the expenses to produce the product.
 - B the availability of land.
 - C the productivity of labour.
 - D the price on the market.
- 1.1.3 A farmer wants to market a product at the highest possible price. A factor that will reduce the cost of transport during the marketing process of the product is ...
- A the highest price.
 - B the highest profit.
 - C the closest market.
 - D the least effort.
- 1.1.4 Efficient mechanisation in farming is the solution to ...
- A a lack of training amongst labourers.
 - B the cost of having labourers trained.
 - C the increasing shortage of farm labour.
 - D the production of better products.
- 1.1.5 Boreholes, pumps and canals are examples of ... items.
- A working capital
 - B fixed capital
 - C movable capital
 - D floating capital



- 1.1.6 A farmer can be classified as an entrepreneur when he/she ...
- A is a permanent employee.
 - B takes unnecessary risks.
 - C sees a unique business opportunity.
 - D works with natural resources.
- 1.1.7 The process whereby agricultural products are changed into a more usable form, tailor-made to meet the consumer's requirements, is known as ...
- A packaging.
 - B processing.
 - C standardisation.
 - D grading.
- 1.1.8 The tool that is the result of a soil survey and is used for the replanning of a farm is a/an ...
- A aerial photograph.
 - B pasture-utilisation report.
 - C soil map.
 - D soil form.
- 1.1.9 A drafted plan that guides the financial control in the next financial year, based on projections, historic data, premises and experience on income and expenses of a farming business:
- A Budget
 - B Strategic plan
 - C Income statement
 - D Statement
- 1.1.10 The management principle which specifically involves the checking and verification of the results of decision-making on a farm is known as ...
- A decision-making.
 - B coordination.
 - C organisation.
 - D control.
- (10 x 2) (20)



- 1.2 Choose a 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) on the attached ANSWER SHEET, for example 1.2.11 M. Each description in COLUMN B can only be used ONCE.

COLUMN A	COLUMN B
1.2.1 Labour laws	A programme aiming at increasing the productivity of workers
1.2.2 Skills development	B protect farm workers from exploitation
1.2.3 Resources	C soil, rainfall, labour, capital and information form part of it
1.2.4 Production risks	D it includes any uncertainties regarding production, such as changes in the weather, crop performance and the incidence of pests and diseases
1.2.5 Business description	E the type of budget that you will set up using statements, invoices, cheque books and cash slips
1.2.6 Risk analyses	F the process whereby a farmer has an interview with a labourer and a trade union representative to discuss and rehabilitate the labourer for coming to work late and under the influence of alcohol
1.2.7 Management principles	G the managerial principle which uses clock cards and pacesetters for labourers
1.2.8 Control	H financial risk, interest-rate risk, crop failure
1.2.9 Cash-flow budget	I this includes the mission and vision statement as well as the nature of the business
1.2.10 Disciplinary action	J planning, decision-making, coordination and organisation, motivation and control
	K a person that delivers exactly the same product to the market as you do
	L the draft plan of a business

(10 x 2)

(20)



1.3 All the statements below are FALSE. Change the underlined word(s) to make each statement TRUE. Write only the correct word(s) next to the question number (1.3.1 – 1.3.10) on the attached ANSWER SHEET.

- 1.3.1 The total quantity of a product that producers wish to sell is called the demand.
- 1.3.2 A business plan normally shows the work that needs to be done on a farm at different times of the year.
- 1.3.3 The relationship between a change in price and change in demand for the product is known as the price equilibrium of supply.
- 1.3.4 Break-even is achieved in any enterprise when the farmer has surplus capital after paying all his/her expenditures.
- 1.3.5 Seasonal labourers are those workers that stay on the farm with a fixed labour contract and are remunerated once a month.
- 1.3.6 A subsistence farmer operates for the profit that he/she generates from selling large quantities of produce.
- 1.3.7 An income is experienced after all expenses have been paid and less money is left in the enterprise than when it started.
- 1.3.8 Processing refers to the actual process of sorting agricultural products into specific grades to distinguish particular characteristics.
- 1.3.9 One of the advantages of selling products from a farm stall is credit sales.
- 1.3.10 The product quality is determined by the interaction of quantities supplied to the market and the demand by consumers at a market.

(10 x 1) (10)

TOTAL SECTION A: 50

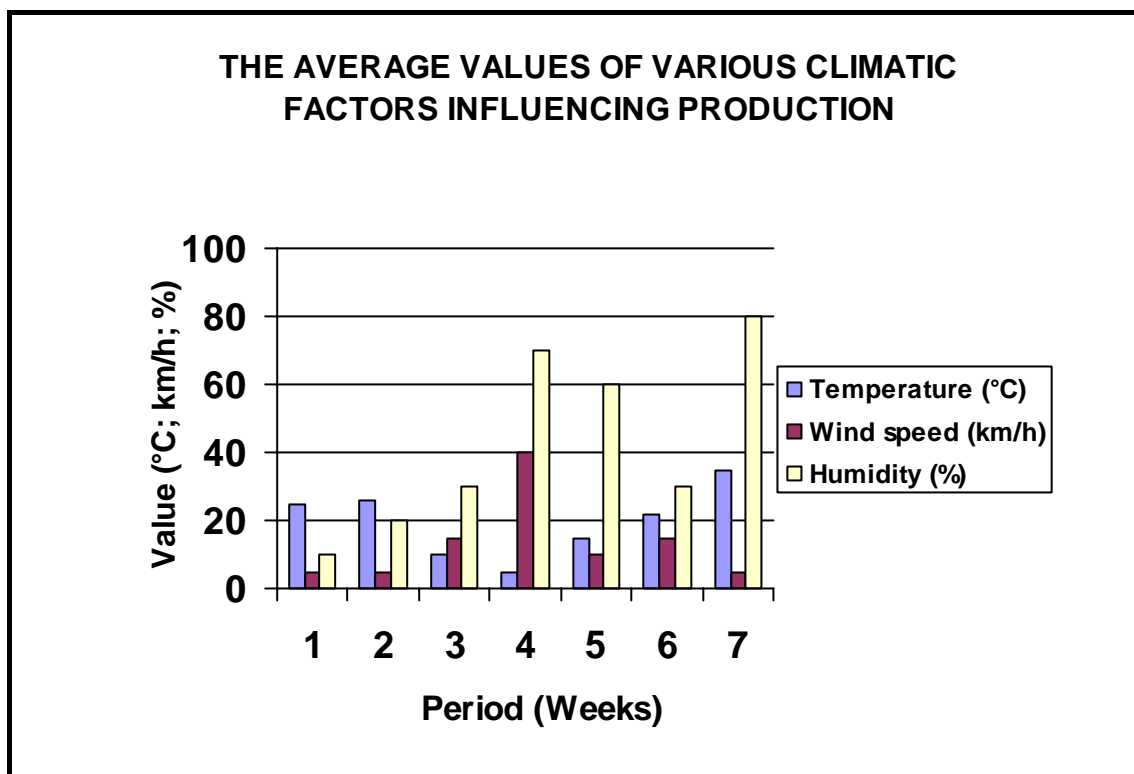


SECTION B**QUESTION 2: ANIMAL AND CROP PRODUCTION**

- 2.1 Mr Mbeki is a new farmer in a rural area. Based on your practical experience in the production and management of a farming enterprise, you are asked to assist this farmer in the physical planning of his farm. Soil data like soil structure, soil texture and soil water capacity are available. Indicate FIVE possible production aspects that would be affected by this soil data. (5)
- 2.2

John has bought a new farm. A river passes through his farm with some wetlands (vlei area) in areas where the river changes direction. The pastures are on a hillside that slopes towards the river. There is evidence of dongas forming at various places in this overgrazed pasture. At the top of the slope, the composition of the grasses differs from that found downhill along the river. As a result of the overgrazing, the pasture grasses are of a lesser quality.
- 2.2.1 You need to improve the quality of the pastures on this farm. This would imply the resting of camps and application of rotational grazing practices. Identify FIVE characteristics of pasture grasses that could be improved by an effective pasture management system. (5)
- 2.2.2 Describe FOUR practical measures that John can implement on this farm to combat soil erosion and to rehabilitate such affected areas. (4)

- 2.3 The graph below represents the different climatic factors on the farm "Klipheuwel" in the winter rainfall area of the country. The graph indicates the average climatic values taken during week-long periods.



- 2.3.1 Identify the week from the data supplied in the graph above that would be the most stressful to animals. Give a reason to support your answer. (2)
- 2.3.2 Compare the possible effect of humidity combined with other climatic factors on the animals during week 4 and week 7. (4)
- 2.3.3 Explain a measure that a farmer can apply to reduce the adverse effect of the following climatic conditions: (1)
- (a) Very high temperatures (1)
 - (b) Very high wind speed (1)
 - (c) Very low temperatures (1)
- 2.3.4 Deduce a possible reason for using more units of energy during week 4 compared to the other weeks indicated on the graph above. (2)

2.4 Mr Jones works on a crop production farm. At the end of the month he observes the following problems:

- Some of the labourers arrive late in the morning and some depart early in the afternoon. He confronts them in this regard.
- He is short of 10 bags of fertiliser, which cannot be accounted for.

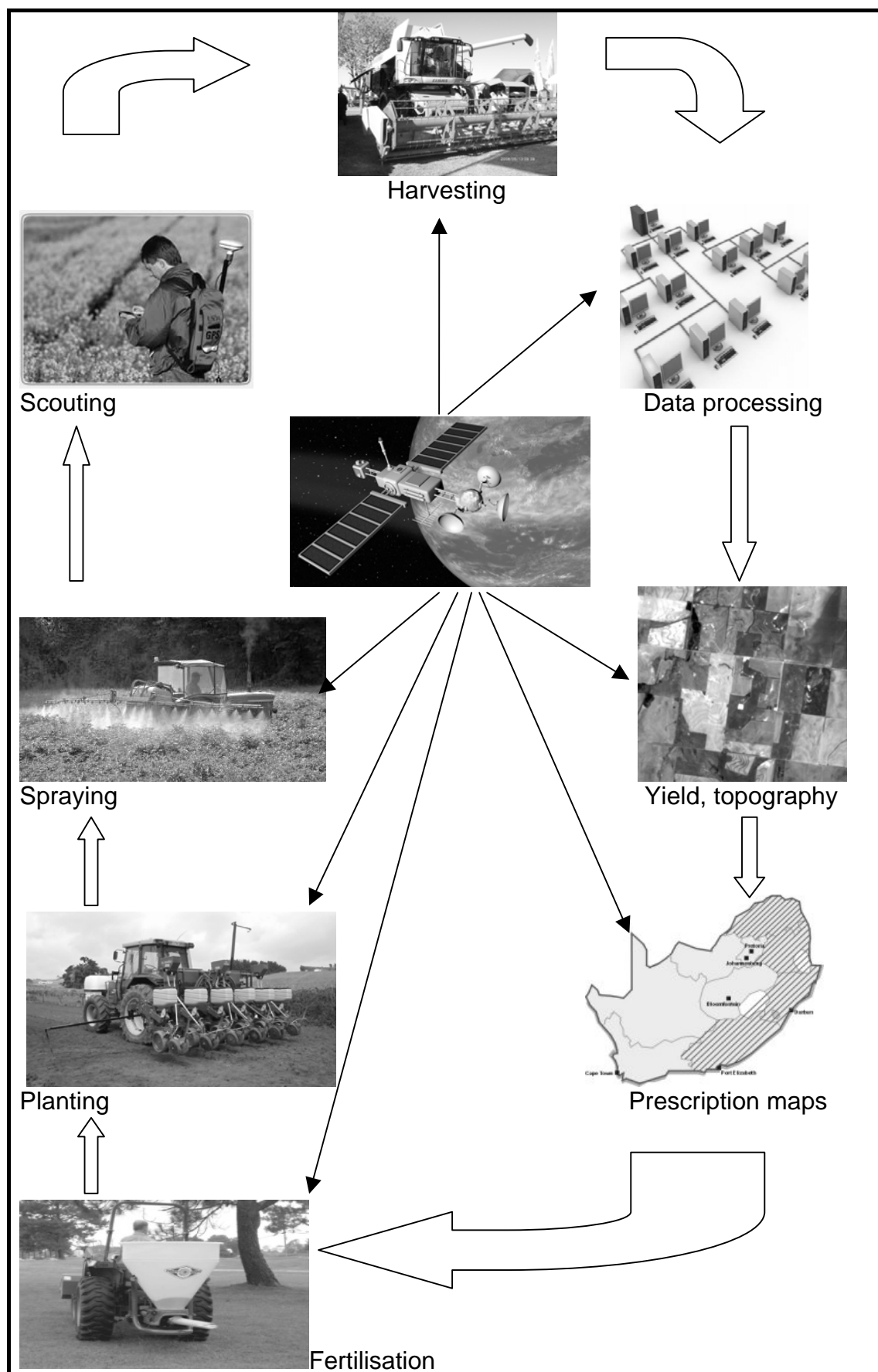
2.4.1 Identify the management principle that can rectify these problems. (1)

2.4.2 Describe TWO practical mechanisms that will reduce the problem of labourers arriving late for work and leaving early in the afternoon. (2)

2.4.3 Indicate THREE possible measures to prevent the loss of the 10 bags of fertiliser which are missing or cannot be accounted for. (3)

2.4.4 Name the action that a farmer can take if the labourers do not adhere to measurements indicated in QUESTION 2.4.3. (1)

2.5 The following schematic representation shows the interaction of different aspects in a specialised farming enterprise:



- 2.5.1 Identify the type of specialised farming system illustrated in the diagram. (1)
- 2.5.2 Briefly explain the advantages of this type of farming system mentioned in QUESTION 2.5.1. (4)
- 2.6 A farmer employs 10 people that must be paid on a monthly basis (Team A). They are responsible for all activities in the farming operation. The farmer also employs 50 people every April to assist in the harvesting of the crops (Team B). The farmer wants to replace the water pipes on a section of this farm and contracted people to complete this task (Team C).
- 2.6.1 Identify the types of worker that are represented by teams A, B and C. (3)
- 2.6.2 Briefly distinguish between the TWO different types of temporary labour. (4)
- 2.6.3 As manager the farmer needs to increase the productivity of the labour force. Name THREE workable measures that may be applied to achieve this objective. (3)
- 2.7 Mary keeps a few milk goats at her home. The grass around her house is used for grazing, but is very short. She has a problem keeping the goats out of her vegetable garden and therefore does not always have enough food. There are communal pastures nearby, but she does not make use of them.
- 2.7.1 Name the farming system utilised by Mary in the paragraph above. (1)
- 2.7.2 Name TWO possible solutions to ensure a sustainable food supply for Mary and her household. (2)
- [50]**



QUESTION 3: RECORDING, FINANCIAL STATEMENTS AND ENTREPRENEURSHIP

- 3.1 A farmer wants to know if he/she has made a profit from his/her small stock enterprise. His/Her expenses over the entire period of the project were as follows:

Animal feed	R15 000
Wages	R10 000
Fuel	R 7 000
Electricity	R 4 000
Fencing	R 870
Interest (medium-term capital)	R 650

The farmer sold produce for R36 000 and the remaining stock of animals for R29 600. Set up an income and expenditure statement and calculate the income this farmer earned from this project. (6)

- 3.2 The following items have been extracted from a balance sheet for Sutha Agricultural Enterprises for the month ending 31 December 2007:

Tractors (2)	R 230 000
Monthly tractor instalment	R 10 000
Seed (30 kg)	R 62 000
Monthly labour expenses	R 22 000
Fence	R 89 000
Truck (1)	R 184 000
Implements	R 120 000
Cash in bank	R 73 000
Yearly fertiliser contract	R 128 000
Accounts retrievable	R 42 000

Classify and arrange the items indicated above under the following headings:

- Assets that have an immediate cash value
- Liabilities that are paid on a monthly or weekly basis
- Assets that could be sold after a period of time
- Liabilities that need to be paid within the following 6 months or more (10)

- 3.3 The following data represents the financial analysis of a private farm in Mpumalanga that specialises in crop production, as at 31 March 2008.

Financial Analysis March 2008	
Net profit of the enterprise by the end of the year (after all costs have been deducted): R49 972.	
SALES/INCOME/TURNOVER	
Sales of crop 1: R34 450	
Sales of crop 2: R22 035	
Sales of crop 3: R28 161	
EXPENDITURE	
Fertilisers	R 6 040
Pesticides	R 1 700
Ploughing	R 1 100
Irrigation	R 900
Harrowing	R 540
Construction of storm drains	R 1 300
Wages for employees	R 14 000
Family helping	R 3 000

- 3.3.1 Determine the total income of this farm as on 31 March 2008. (1)
- 3.3.2 Name the THREE activities that represent land preparation in the expenditure items of this farm. (3)
- 3.3.3 Calculate the total cost of labour on the farm as on 31 March 2008. (2)
- 3.3.4 Calculate the total percentage of the turnover that the gross profit represents. Show ALL the calculations. (3)
- 3.4 A group of young farmers in a village decided to start a small-scale crop production business. These farmers have the following equipment in a temporary shed that they constructed:
- Garden forks
 - Rakes
 - Picking bags
 - Knapsack sprayers
 - Clippers
 - Hoe/Tiller

An inventory was set up for their equipment under the following headings:

- Soil preparation
- Weed and pest control
- Harvesting

Indicate any TWO hand tools from the list on the previous page that you would recommend for each of the following operations:

- 3.4.1 Soil preparation (2)
- 3.4.2 Weed and pest control (2)
- 3.4.3 Harvesting (2)
- 3.5 Planning for a livestock farming business is challenging to the emerging farmer. Draw up a simple business plan of an enterprise that you have been exposed to during the year. (8)
- 3.6 The main purpose of a budget is the planning and financial management of an enterprise.
- 3.6.1 Define the term *farm budget* in any farm organisation. (2)
- 3.6.2 Give THREE examples of budgets used in an agricultural enterprise. (3)
- 3.7 Farmer A was a serious, hard worker and an excellent employee. He/She was superior to Farmer B as a diesel mechanic. Farmer A also had greater knowledge of animal feeding, reproduction and health than Farmer B. To the superficial observer he/she was a better farmer and his/her machinery was in better condition. His/Her livestock always looked good.
- Surprisingly Farmer A failed in agricultural production whilst Farmer B succeeded. Farmer B was flexible, whereas Farmer A kept the same enterprises throughout his/her farming career. Farmer B adapted his/her enterprises operation to changing economic conditions.
- Compare the ability of Farmer A to Farmer B with regard to the following management aspects:
- 3.7.1 Production output (2)
- 3.7.2 Economical sensibility (2)
- 3.7.3 Flexibility and creativity (2)
- [50]**



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

4.1 A group of small-scale farmers decide to market their products collectively. Draw up a schematic representation of a possible marketing chain that would be utilised by small-scale farmers when marketing their products. The following institutions should be included in the schematic representation:

- Wholesale
- Processing company
- Village market
- Local supermarket
- Street vendors

(5)

4.2 Small-scale farmers are increasing, but they experience barriers/restrictions to entering the meat industry. Write brief notes explaining the meaning of each of the following barriers:

4.2.1 Lack of capital

(2)

4.2.2 Difficulty in establishing/finding a market

(2)

4.2.3 Inability to produce quality meat

(2)

4.2.4 Lack of skills and training

(2)

4.3 Compare the different approaches of small-scale farmers and commercial farmers with regard to the following principles of harvesting:

4.3.1 The use of the correct methods and equipment



(2)

4.3.2 Identification of readiness/ripeness of the product



(2)

4.3.3 Transportation and handling



(2)

4.3.4 Storage



(2)

- 4.4 A farmer grows a perishable crop for the market. During every harvesting season, a decision should be made regarding whether the crop needs to be processed or just harvested.

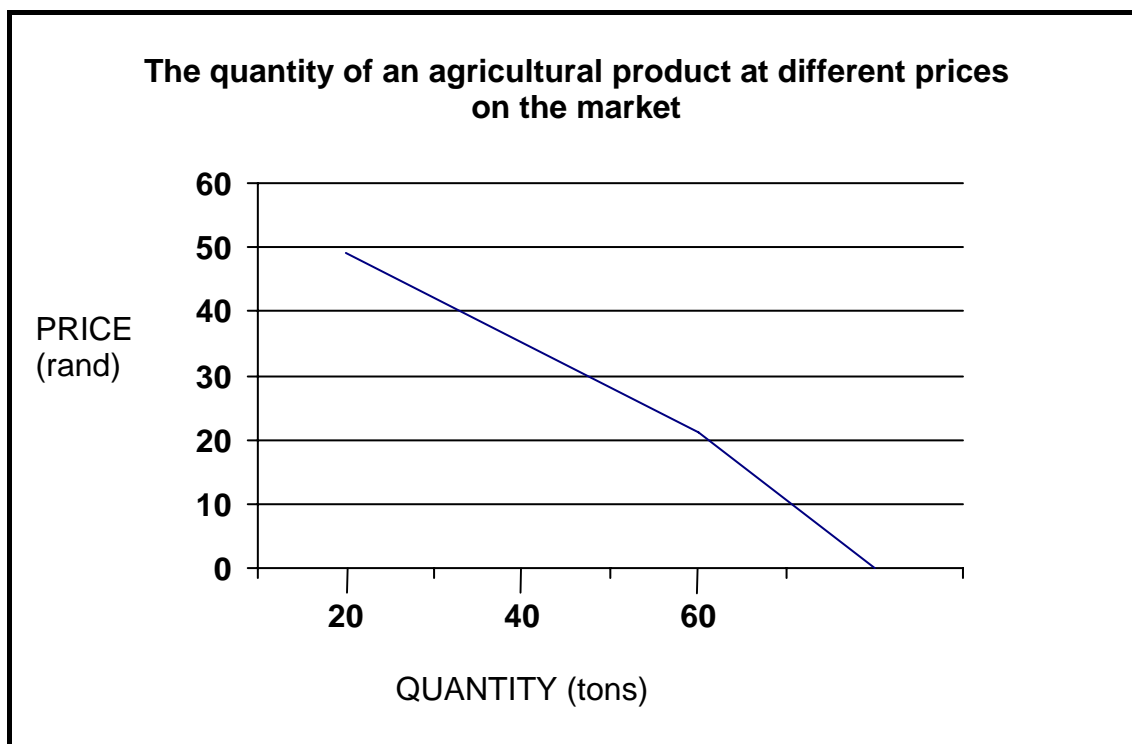
- 4.4.1 Indicate THREE factors that would influence this decision regarding whether to process or harvest and deliver the crop.

(3)

4.4.2 Describe THREE specifications of a processing plant that would ensure a quality final product. (3)

4.4.3 Indicate the final treatment of a processed product to make it more attractive for the consumer. (1)

4.5 The graph below shows the quantity of an agricultural product that consumers will buy at a given price from the central market.



4.5.1 Identify the type of marketing curve indicated in the graph above. (1)

4.5.2 Deduce from the graph above the quantity of a product sold if the price is set at R25,00 per unit. (2)

4.5.3 Briefly explain what happens to the quantity of a product bought and the price per unit (in rand) in a free-market system, in each of the following cases:

(a) When there is a bumper harvest during that season/period (2)

(b) When there is a scarcity of the commodity, for example during planting time (2)

- 4.6 Hlabani multi-enterprise farm decided to increase its income by introducing an agritourism section. Select FOUR items from the list below that are necessary to promote the agritourism project. Give a reason to justify your choice in each case.
- Canteen
 - Fertiliser barn
 - Rooms for lodging
 - Some wild animal species
 - New farm house
 - Security dogs
 - Farm dam
- (8)
- 4.7 Themba has been chosen to lead a group of people who want to start a farmer's cooperative and must help to develop a constitution for the members of the cooperative. Themba must explain to his fellow-members in clear and simple terms the meaning of each of the following principles. Suggest definitions that Themba should use for each of the principles below.
- 4.7.1 Voluntary and open membership (2)
- 4.7.2 Democratic member control (1)
- 4.7.3 Explain the main purpose of each of the following partners in a cooperative system:
- (a) The management (2)
- (b) The board of directors (2)
- [50]**
- TOTAL SECTION B: 150**
- GRAND TOTAL: 200**



EXAMINATION NUMBER: _____**CENTRE NUMBER:** _____**SECTION A****QUESTION 1.1**

1.1.1	A	B	C	D
1.1.2	A	B	C	D
1.1.3	A	B	C	D
1.1.4	A	B	C	D
1.1.5	A	B	C	D
1.1.6	A	B	C	D
1.1.7	A	B	C	D
1.1.8	A	B	C	D
1.1.9	A	B	C	D
1.1.10	A	B	C	D

(10 x 2) (20)

QUESTION 1.2

1.2.1	
1.2.2	
1.2.3	
1.2.4	
1.2.5	
1.2.6	
1.2.7	
1.2.8	
1.2.9	
1.2.10	

(10 x 2) (20)

QUESTION 1.3

- 1.3.1
 1.3.2
 1.3.3
 1.3.4
 1.3.5
 1.3.6.....
 1.3.7.....
 1.3.8.....
 1.3.9.....
 1.3.10.....

(10 x 1) (10)

TOTAL SECTION A: 50**NB.: PLEASE HAND IN TOGETHER WITH ANSWER BOOK.**