



basic education

Department:
Basic Education
REPUBLIC OF SOUTH AFRICA

NATIONAL SENIOR CERTIFICATE

GRADE 12

AGRICULTURAL MANAGEMENT PRACTICES

NOVEMBER 2015

MEMORANDUM

MARKS: 200

This memorandum consists of 11 pages.

SECTION A**QUESTION 1****1.1 Multiple-choice questions**

1.1.1	A ✓✓		
1.1.2	B ✓✓		
1.1.3	D ✓✓		
1.1.4	D ✓✓		
1.1.5	A ✓✓		
1.1.6	C ✓✓		
1.1.7	A ✓✓		
1.1.8	B ✓✓		
1.1.9	D ✓✓		
1.1.10	D ✓✓	(10 x 2)	(20)

1.2 Matching items

1.2.1	L ✓✓		
1.2.2	E ✓✓		
1.2.3	I ✓✓		
1.2.4	G ✓✓		
1.2.5	D ✓✓		
1.2.6	B ✓✓		
1.2.7	J ✓✓		
1.2.8	K ✓✓		
1.2.9	A ✓✓		
1.2.10	C ✓✓	(10 x 2)	(20)

1.3 Correct agricultural term

1.3.1	Movable capital ✓		
1.3.2	Variable cost ✓		
1.3.3	Entrepreneur ✓		
1.3.4	Cooperative ✓		
1.3.5	Own capital ✓		
1.3.6	Distribution ✓ / transportation ✓		
1.3.7	Pool system ✓		
1.3.8	Interest ✓		
1.3.9	Marketing cost ✓		
1.3.10	Gross farm income ✓	(10 x 1)	(10)

TOTAL SECTION A: 50

SECTION B

QUESTION 2: PHYSICAL AND FINANCIAL PLANNING

- 2.1 **FIVE ways how temperature restricts agricultural production.**
- Late/early frost can cause damage to crops, or even destroy the whole season's production ✓
 - Long cold spells can reduce the growth rate as well as the yield of both crops and livestock ✓
 - Extreme cold can kill many crops and livestock ✓
 - Very high temperatures increase evaporation of water from the soil which results in drought ✓
 - Very high temperature results in crops wilting which lowered production ✓
 - Very high temperatures can cause heat stroke ✓ (Any 5) (5)

- 2.2 **The influence of slope on crop production**
- The slope of land should not be too steep ✓
 - Because rain falling on a steep cultivated land will easily wash away the top soil and promote soil erosion ✓
 - Northern slope is more productive ✓ / southern slope is less productive ✓
 - Because of warmer temperatures and/or direct sunlight ✓ (4)

- 2.3 **Effect of soil depth on plant production**
- Shallow soil**
- Restricts the development of plant roots ✓
 - Have a lower water capacity this leads to poor yield ✓
 - Have a quicker water logged ✓
- Deep soils**
- Hold water better ✓
 - Better root development ✓
 - Have a higher production potential ✓ (Any 4) (4)

- 2.4 **THREE factors that cause the change of the plant species**
- Overgrazing ✓
 - Selective grazing ✓
 - Under grazing ✓
 - Veld fires ✓
 - Drought/climate change ✓ (Any 3) (3)

2.5 **Types of credit for farmers**

Types of credit for farmers	Long term credit	Medium term credit	Short term credit
Duration	10 years and longer ✓	2–10 years ✓	2 years and lower ✓
Use of credit	Land ✓	Machinery ✓	Fertilisers ✓

(6)

2.6 **Production methods in farming**

- 2.6.1 (a) B – subsistence farming ✓
(b) A – precision farming ✓ (2)

2.6.2 **Motivation of QUESTION 2.6.1**

	Precision farming	Subsistence farming
Equipment used	<ul style="list-style-type: none"> Highly technological ✓ 	<ul style="list-style-type: none"> Mainly hand equipment ✓
TWO advantages	<ul style="list-style-type: none"> Cost effective related to inputs Less time consuming ✓ Electronic information is changed into management strategies ✓ Determine the soil potential productivity ✓ Predict yield potential ✓ Determine soil cultivation method ✓ Determine the sowing density and type of fertilizers ✓ (Any 2) 	<ul style="list-style-type: none"> Less expensive ✓ Easy to operate ✓

(6)

2.7.1 **The type of farming system**

- A – extensive ✓
 - B – intensive ✓
 - C – semi-intensive ✓
- (3)

2.7.2 **Farming system**

- Semi-intensive / C ✓
- (1)

2.8 **FOUR benefits of AIDS project for farm**

- Prevention/awareness will have a healthier labour force ✓
- Workers will create a healthier environment ✓
- Earlier detection and treatment leads to less absentees ✓
- Productivity of farm can increase ✓
- Labour/transport/medical costs will be lower ✓ (Any 4) (4)

2.9.1 **Calculate missing amounts**

- R80,00 ✓
 - R85,00 ✓
 - R1 600,00 ✓
 - R10 012,00 ✓
 - R22 500,00 ✓
- (5)

2.9.2 Conclusion and calculation

- Profit / loss = Total expected income – total expected expenses
= R22 500,00 ✓ – R10 012,00 ✓
= R12 488,00 ✓

- The crop farmer will make a profit ✓ (4)

2.10 Three aspects of planning

- Condition of the engine ✓
- Appropriateness of the engine ✓
- Conditions of the equipment to be used with the engine ✓
- Type of equipment with the engine size ✓

(Any 3) (3)
[50]

QUESTION 3: ENTREPRENEURSHIP, RECORDING, MARKETING AND BUSINESS PLANNING

3.1 FIVE challenges faced by farm gate marketing

- Number of customers visiting the farm ✓
- Cannot get the price that the farmer wanted ✓
- Lack of storage facilities ✓
- Low bargaining power ✓
- Lack of capital ✓
- Farm not situated favourably ✓

(Any 5) (5)

3.2 The role of agricultural marketing legislation

- It provide legal platform for the marketing of agricultural products ✓
- It regulates the economic functioning by promoting, guiding the overall operation of agricultural markets ✓
- It provides guidelines for the operation of the markets in different ways in order to avoid serious bad results to the environment and consumers at large ✓

(3)

3.3 THREE differences between marketing and selling.

Marketing	Selling
• Profit orientated ✓	• Product orientated ✓
• Long term plans are made ✓	• Short term objectives ✓
• Emphasis is on consumer needs and satisfaction ✓	• Consumer needs and satisfaction are neglected ✓
• Emphasises working together ✓	• No working together ✓
• Technological innovation is important ✓	• Costs are reduced to achieve maximum sales profit ✓

(Any 3 in each column) (6)

3.4.1 A business plan

- It is a document that describes the business you want to start and indicate your goals and objectives ✓
- Indicate the income and costs/ financial aspect of the business ✓
- Indicate the operation of the business and its sustainability ✓

(Any 2) (2)

3.4.2 Reasons why a bank requires a business plan

Business plans informs the bank manager on the following important aspects:

- Viability of the business ✓
- Sustainability of business ✓
- If profit will be big enough for repayment ✓
- The probable income and expenditure ✓
- Predicted cash flow ✓
- Assets and liabilities ✓

(Any 4) (4)

3.5.1 THREE methods of price setting

- Cost plus pricing/profit ✓
- Competition orientated ✓
- Market orientated pricing/going rate pricing ✓
- Breakeven point ✓
- Supply and demand/Market equilibrium ✓

(Any 3) (3)

3.5.2 FOUR prerequisites of a market

- Market size ✓
- Geographical placing ✓
- Stability ✓
- Availability ✓
- Satisfy needs ✓
- Organised ✓
- Good marketing functions and intuitional organisation ✓
- Risk evasion ✓
- Trust and ethical codes ✓
- Available, trustworthy market information ✓
- Buying power of the consumers ✓

(Any 4) (4)

3.6.1 Calculate price at point of sell

- Price after processing = $R20/kg \times 1.7$ ✓
= $R34/kg$ ✓
- Final price = $R34/kg \times 1.5$ ✓
= $R51/kg$ ✓

OR

- Price processing = $R20/kg + R20 \times 70\%$ ✓
= $R20/kg + R14$
= $R34/kg$ ✓
- Final price = $R34/kg + R34/kg \times 50\%$ ✓
= $R51/kg$ ✓

OR

- Increase = $R20/kg \times 70\%$
 $R14/kg$ ✓
- Price processing = $R20/kg + R14/kg$
= $R34/kg$ ✓
- Price increase = $R34/kg \times 50\%$ ✓
= $R17/kg$
- Final price = $R34/kg + R17/kg$
= $R51/kg$ ✓

(4)

3.6.2 Describe relationship

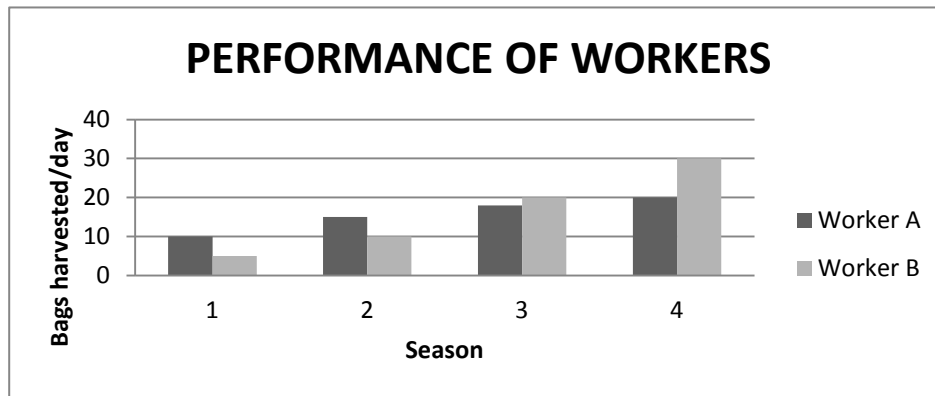
- The longer the marketing chain, the higher the price the consumer will pay

OR

- The shorter the marketing chain the less the consumer will pay for the product. ✓✓

(only one statement relevant) (2)

3.7.1 **Bar graph on performance of workers**



Rubric

- ✓ appropriate heading
- ✓ correct x-axis and labelling
- ✓ correct y-axis and labelling
- ✓ key
- ✓ correct type of graph
- ✓ correct values of graph

(6)

3.7.2 **Possible reason for poor performance**

- New worker on the farm ✓
- Unskilled/untrained worker in the specific task ✓
- Illness ✓
- Absenteeism ✓
- New type of work for the worker ✓

(Any 1) (1)

3.7.3 **Selection and recommendations for worker**

- Worker B ✓

AND

- Worker productivity improved over time ✓
- Worker B outperformed worker A from the third season ✓
- Worker B became more skilful ✓

(Any 2) (2)

3.8.1 **Percentage that tools and machinery contribute to the assets**

- Total assets = R150 000 + R284 000
= R434 000 ✓

- % of asset = $\frac{R284\ 000}{R434\ 000} \times 100$ ✓
= 65,43% ✓

(3)

3.8.2 **The negative effect of high farm mechanisation**

- (a) Social justice: job losses/unemployment/ no skilled labourers ✓ (1)
- (b) Environmental justice: air pollution/land pollution/water pollution ✓ (1)
- (c) Economic matters: expensive (1)

3.9 Keeping record of farm related information ✓ e.g. (production, income, expenditure) to help in planning and decisions making. ✓

(2)

[50]

QUESTION 4: HARVESTING, PROCESSING, AGRITOURISM AND MANAGEMENT

4.1 **Compare different approaches to harvesting between the small commercial farmer and Large commercial farmer**

	Large Commercial farmer	Small Commercial farmer
Time management	Saves time as own harvesters can do the harvesting. ✓	Time consuming as he need to hire contractors for harvesting, that is not always available ✓
Transport and handling	Own transport available ✓ and have equipment that handle bulk ✓ (Any one)	Own transport not available ✓ bulk not easily handled. ✓ (Any one)
Storage	Normally well-structured storage facilities ✓ (Silo)	No/poor storage facilities ✓

(6)

4.2 **FOUR components when designing packaging material**

- Protection of the product ✓
- Deliver and display the product in a way that it attracts the customers ✓
- Make the product recognisable ✓
- Have features that make it easy to handle ✓
- Cost effective ✓
- Provide information to the consumers ✓
- Type of material ✓

(Any 4)

(4)

4.3 **FOUR characteristics of ideal packaging**

- Sanitary ✓
- Non – Toxic ✓
- Transparent ✓
- Light weight ✓
- Tamper proof ✓
- Easily disposable ✓
- Easily printed or labelled ✓
- Resistant to mechanical and thermal damage ✓
- Compatible with high speed tilling machinery ✓
- Compatible with food/product ✓
- Protective against light ✓
- Easily opened/closed ✓
- Impermeable to gasses and odours ✓
- Environmentally friendly ✓

(Any 4)

(4)

- 4.4 **Classify management activities**
- 4.4.1 • Type of crop or combination of crops to produce ✓ (1)
- 4.4.2 • Decision on where to market the produce ✓ (1)
- 4.4.3 • Set up of budgets for comparison ✓ (1)
- 4.4.4 • Studying of market prices ✓
- Keeping of records on production and labour ✓ (Any 1) (1)
- 4.4.5 • Training of labourers ✓ (1)
- 4.4.6 • Organising a farmers market day. ✓ (1)
- 4.5.1 **FOUR reasons for preserving food**
- To protect the food against micro – organisms, enzymes and other form of spoilage ✓
- To prepare food of uniform quality on a large scale
- to provide a stable market for food that is available for only a few days or weeks in a year/food security ✓
- To have a greater variety of food available in non-producing areas ✓ (4)
- To feed humankind ✓
- 4.5.2 **FOUR food preserving methods where micro-organisms development is inhibited**
- Applying cold/ freezing ✓
- Increasing the osmotic pressure/Canning ✓
- Decreasing the moisture content through drying or dehydration ✓
- Decreasing the pH through the adding of acid ✓ (4)
- 4.5.3 **FOUR methods of food preserving where micro-organisms are killed**
- Apply high concentration of salt or sugar ✓
- Alcohol ✓
- Chemical preserving agents ✓
- Spices containing antimicrobial action ✓
- Heating/pasteurization/sterilization/blanching ✓
- Radiation/ultra violet rays ✓ (4)
- 4.6 **FOUR types of coordination**
- Informal coordination ✓
- Programmed coordination ✓
- Negotiated coordination ✓
- Group coordination ✓ (4)
- 4.7 **FOUR factors to consider for decision on harvesting**
- Readiness/ripeness ✓
- Climate ✓
- Availability of labourers/machinery ✓
- Availability of contractor ✓ (4)
- Availability of storage facilities ✓
- Marketing aspects ✓

4.8 **TWO ways that a farmer can play a significant role in agri-tourism**

- By promoting farm stay holidays ✓
- By bringing the country and city life together/education ✓
- By ensuring the sustainable utilization of our natural resources ✓ (Any 2) (2)

4.9.1 **Managerial skill and example**

Managerial skills	Example
<ul style="list-style-type: none"> • Planning ✓ • Control ✓ 	<ul style="list-style-type: none"> • Budget for maintenance ✓ • Time register ✓
<ul style="list-style-type: none"> • Motivation ✓ 	<ul style="list-style-type: none"> • Incentives ✓ • Training ✓ • Build well-equipped houses ✓ <p style="text-align: right;">(Any 1 for motivation)</p>

(6)

4.9.2 **Disciplinary action**

- Cannot take disciplinary action ✓ (1)

AND**Reason:**

- No training of workers ✓
- Do not show proper handling of equipment ✓
- Fix breakages as it occurs ✓
- No regular maintenance ✓ (Any 1) (1)

[50]

TOTAL SECTION B: 150
GRAND TOTAL: 200