



# basic education

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

## **NATIONAL SENIOR CERTIFICATE**

**GRADE 12**

**AGRICULTURAL MANAGEMENT PRACTICES**

**NOVEMBER 2014**

**MEMORANDUM**

**MARKS: 200**

**This memorandum consists of 13 pages.**

**SECTION A****QUESTION 1: SHORT QUESTIONS****1.1 Multiple Choice**

1.1.1 C ✓✓

1.1.2 B ✓✓

1.1.3 A ✓✓

1.1.4 B ✓✓

1.1.5 C ✓✓

1.1.6 D ✓✓

1.1.7 C ✓✓

1.1.8 B ✓✓

1.1.9 A ✓✓

1.1.10 D ✓✓

(10 x 2) (20)

**1.2 Matching items**

1.2.1 D ✓✓

1.2.2 I ✓✓

1.2.3 E ✓✓

1.2.4 A ✓✓

1.2.5 H ✓✓

1.2.6 K ✓✓

1.2.7 B ✓✓

1.2.8 J ✓✓

1.2.9 F ✓✓

1.2.10 L ✓✓

(10 x 2) (20)

1.3	<b>Term/Word(s)</b>		
1.3.1	Water-holding capacity ✓		
1.3.2	Intensive farming ✓		
1.3.3	Rainfall ✓		
1.3.4	Business plan ✓		
1.3.5	Source document ✓		
1.3.6	Free marketing ✓		
1.3.7	Skilled/schooled/qualified labourer ✓		
1.3.8	Loan/credit ✓		
1.3.9	Filtration ✓		
1.3.10	Control ✓	(10 x 1)	(10)
			<b>[50]</b>
		<b>TOTAL SECTION A:</b>	<b>50</b>

**SECTION B****QUESTION 2: FARM PLANNING**

- 2.1 **FOUR types of leave**
- Annual leave/holiday leave ✓
  - Maternity leave ✓
  - Urgent personal matters ✓
  - Family responsibility leave ✓
  - Sick leave ✓
  - Special leave ✓
  - Occupational accident leave ✓
  - Unpaid leave ✓
- (Any 4) (4)
- 2.2 2.2.1 **Definition of erosion**
- It is the removal of soil from the surface ✓
  - By means of wind and runoff ✓
- (2)
- 2.2.2 **Description of contour ploughing**
- It is the farming practice of ploughing across or against the slope/ 90° degree angle to the general land slope ✓
- (1)
- 2.2.3 **Advantages of contours**
- Reduces run off and erosion ✓
    - Cross-slope farming with other conservation practices meet the goal of conservation ✓
  - Overland water flow is reduced ✓
    - The higher the ridge height, the more overland water will be slowed down ✓
    - Control water flow into waterway ✓
  - Reduces nutrient loss ✓
    - Contour ploughing combined with mulch cultivation prevents leaching of nutrients ✓
    - Nutrient loss due to loss of soil is prevented ✓
- (Any 6) (6)
- 2.3 2.3.1 **Steps in decision-making process to acquire implements**
- Identify the need for the implement ✓
  - Gather information on the different implements available ✓
  - Evaluate the advantages and disadvantages of each implement ✓
  - Link productivity to the price of the implement ✓
  - Make a choice and verify decision ✓
- (5)

2.3.2 **Disadvantages of using implements**

- Implements are expensive ✓
- Use of implements needs a higher skilled labourer ✓
- Implements can destroy certain properties of soils ✓
- No market if not in use anymore ✓
- Depreciation of implements ✓
- Breakage ✓
- Can lead to unemployment ✓

(Any 2) (2)

2.4 **THREE reasons for signing a contract**

- Requirement of labour act ✓
- To have a legal agreement between the employer and the employee ✓
- To protect the rights of both parties ✓
- To formally define the conditions of employment and the employer-employee relationship ✓
- To refer to the contract in case of disputes ✓
- To define what is clearly requested from the employee/Job description ✓

(Any 3) (3)

2.5 **Comparison between conventional commercial and precision farming**

2.5.1 **Prerequisite information**

Precision farming	Conventional commercial farming
<ul style="list-style-type: none"> <li>• More detailed information of agricultural practices ✓</li> </ul>	<ul style="list-style-type: none"> <li>• Less detailed information of agricultural practices ✓</li> </ul>

(2)

2.5.2 **Technical level of equipment used**

Precision farming	Conventional commercial farming
<ul style="list-style-type: none"> <li>• Needs more technically advanced equipment ✓</li> </ul>	<ul style="list-style-type: none"> <li>• Equipment don't rely on advanced technical equipment/more mechanical equipment ✓</li> </ul>

(2)

2.6 2.6.1 **Slope with higher growth rate**

- North-facing slope ✓

**Two reasons**

- The sun reaches the slope more directly ✓
- Plants grow in a higher average temperature environment ✓

(3)

2.6.2 **Importance of daylight length on animals and plants**

- It influences reproduction cycles ✓
- Influences plant and animal growth ✓
- Responsible for photosynthesis ✓
- Responsible for ripening of fruit ✓

(4)

- 2.7 2.7.1 **Distinction between whole-farm budget and enterprise budget**
- Whole-farm budget is a summary of the financial estimates of all the divisions of the entire farm business ✓
  - Enterprise budget is a budget for a particular enterprise/production unit or section of the farm ✓
- (2)
- 2.7.2 **FIVE examples of production budgets**
- Enterprise budget ✓
  - Feed budget ✓
  - Mechanisation/service budget ✓
  - Investment budget ✓
  - Financial budgets ✓
  - Marketing budget ✓
  - Cash flow budget ✓
  - Fuel budget ✓
  - Labour budget ✓
- OR**
- Any five enterprise budgets (Any 5) (5)
- 2.8 2.8.1 **Period of highest growth rate**
- April – May ✓
- (1)
- 2.8.2 **Relationship between rainfall and temperature**
- Rainfall and temperature together are conducive for plant growth ✓
  - By itself rainfall or temperature is not necessarily favourable for growth ✓
  - As observed during the period Jun–Jul ✓
  - Where the temperature was too low for growth/too cold during winter ✓
  - During the period Aug–Sept the growth was low despite average rainfall and temperatures ✓
  - The reason can be that the humidity during the period was too high ✓
  - Transpiration was low and therefore plants grow slowly ✓
  - The combination of rainfall, temperature and humidity is important for growth to be at its optimum point ✓
- (8)  
**[50]**

**QUESTION 3: ENTREPRENEURSHIP, RECORDING, MARKETING AND BUSINESS PLANNING****3.1 Advantages of keeping records using a computer**

- Easier to access information ✓
- A lot of information can be stored in less space ✓
- Comparisons can be made easier ✓
- Calculations can be done easier ✓
- Transfer of information is easier ✓
- There is quicker reproduction of information ✓
- Can make use of trusted and tested production and financial programmes ✓ (Any 4) (4)

3.2 3.2.1 Not transferable ✓/not negotiable✓/2 lines crossing✓ (1)

3.2.2 Any complete date ✓ (1)

3.2.3 Thirty nine thousand six hundred rand only /no cents✓ (1)

3.2.4 R39 600,00/R39 600 -- ✓ (1)

**3.3 3.3.1 Depreciation**

- Depreciation is the monetary value✓ that non-current assets loses over time ✓ (2)

**3.3.2 Calculation of depreciation**

- Annual depreciation =  $\frac{R200\ 000 - R10\ 000}{10}$  ✓
- =  $\frac{R190\ 000}{10}$
- = R19 000✓ (2)

3.4 3.4.1

**INCOME STATEMENT FOR YEAR ENDING  
31 December 2014**

<b>EXPENDITURE</b>	<b>RAND</b>	<b>INCOME</b>	<b>RAND</b>
Land preparation	R10 000	Cucumbers	R11 500
Planting	R 6 000	Beetroot	R28 000
Casual labour	R 8 000	Tomatoes	R20 000
Seed	R 6 500	Cabbages	R 9 400
Fuel and lubricants	R10 000		
Fertiliser	R10 000		
Disease, pest and Weed control	R10 000		
Repair and maintenance	R 5 500		
Packaging and marketing	R 4 000		
<b>TOTAL</b>	<b>R70 000</b>	<b>TOTAL</b>	<b>R68 900</b>

Rubric

- Correct entries in expenses ✓
- Correct entries in income ✓
- Correct calculation of expenses ✓
- Correct calculation of income ✓
- Drawing of table with labels ✓ (5)

3.4.2 **Determination of profit/loss and substantiate**

- It is a loss ✓
- Profit/loss = R68 900 – R70 000 ✓
- = – R 1 100 or (R1 100) ✓ (3)

**(Mark positively with statement values)**3.4.3 **Three possible solutions**

- Plan better to save fuel costs ✓
- Make use of biological control methods to reduce costs on poisons ✓
- Make use of compost/organic material to save fertiliser costs ✓
- Servicing/replacing implements to reduce maintenance costs ✓
- Fewer casual labourers ✓
- Make better use of mechanisation ✓ (Any 3) (3)

- 3.5      3.5.1      Land (at cost) R100 000 ✓ (1)
- 3.5.2      Second-hand tractor R50 000 ✓ (1)
- 3.5.3      Debtors R13 000 ✓ (1)
- 3.5.4      Cash R2 000 ✓ (1)
- 3.5.5      Creditors R10 000 ✓ (1)  
**(Order of answer to 3.5.4 and 3.5.5 can swop around)**
- 3.5.6      R260 000 ✓ (1)  
**(Mark positively)**

3.6      **Steps in preparing a business plan**

- Decide on the kind of business you want to start ✓
- Collect information about the chances of success and chances of failure/feasibility studies/opportunities (markets) and risks data (sources of capital/loans) ✓
- Focus and analyse the data/information collected so as to refine ideas on the business ✓
- Outline the specific requirements/inputs, management issues, anticipated returns ✓
- Test your plan/set goals and targets, make a detailed management plan ✓ (5)

3.7      **Differentiation between contract marketing and farm-gate marketing**

<b>Contract marketing</b>	<b>Farm-gate marketing</b>
A signed contract between the producer and the consumer ✓	No contract signed ✓
Price is fixed ✓	Fluctuating prices ✓
Products are graded ✓	No grading ✓
Packaging is according to the regulation ✓	No regulation for packaging/no need for packaging ✓
Guaranteed income ✓	No guaranteed income ✓
Obligated to deliver to contract ✓ (Any 2)	Sell to any one ✓ (Any 2)

(4)

3.8      3.8.1      **Definition of fixed price**

- It is when the price has been set for goods and services ✓
- With no bargaining permitted over the price ✓

**OR**

- The price is held constant ✓
- Regardless of the cost of production ✓ (2)

**3.8.2 Three advantages of a fixed price**

- Know the price that one will receive ✓
- Makes planning easier ✓
- More constant income/fluctuations on the market has no effect ✓
- Set the right price at the first time ✓

(Any 3) (3)

**3.8.3 FOUR marketing strategies**

- Plan initial promotion/local radio station ✓
- Set up a website/social media ✓
- Set up a free listing for your business in search engine local directories ✓
- Set up your business profile or page on chat sites ✓
- Print the business cards and business stationery/flyers ✓
- Contact all the persons from whom you can buy products or services and provide them with your business card ✓
- Produce high quality product ✓

(Any 4) (4)

**3.9 Discussion of diversification as business survival strategy**

- Have more than one production unit/value adding ✓
- To protect the farmer from financial risk ✓
- If one enterprise experience disaster/market price plunging ✓

(3)  
**[50]**

**QUESTION 4: HARVESTING, PROCESSING AND MANAGEMENT****4.1 Chronological steps in the decision making process**

- Define and analyse the problem ✓
- Develop alternative solutions ✓
- Evaluation of alternative solutions ✓
- Select the best solution ✓
- Implementation of decision ✓
- Follow implementation up and evaluate ✓ (6)

**4.2 Tasks of a manager**

- Control ✓
- Planning ✓
- Motivation ✓
- Communication ✓
- Decision making ✓ (5)

**4.3 4.3.1 Definition of harvesting**

- It is the collection of the crop ✓
- When the crop is ready to pick/at matured stage ✓ (2)

**4.3.2 Steps that crop will follow**

Step 1	Harvesting ✓
Step 2	Transporting to the pack house ✓
Step 3	Storing of ungraded product ✓
Step 4	Grading and sorting ✓
Step 5	Packaging ✓
Step 6	Storing of graded product ✓
Step 7	Distributing/Transport ✓

(6)

(Any 6 in correct order)

**4.4 4.4.1 Fermentation as method of preservation**

- Sugar fermentation ✓
- Through yeasts/bacteria for production of beer/bread/wine ✓
- Oxidation of alcohol to form vinegar ✓
- Lactose fermented ✓
- Into lactic acid ✓
- That causes milk to coagulate to make cheese ✓ (Any 4) (4)

4.4.2 **Comparison of value of processed food to that of the raw food products**

	<b>Raw food product</b>	<b>Processed product</b>
Shelf life	Short ✓	Long ✓
Packaging and distribution	Difficult and costly ✓	Simple and less costly ✓

(4)

4.5 **FOUR good hygienic practices in the food processing industry**

- Wear clean overalls/laboratory coats ✓
- Wear clean boots/protected shoes ✓
- Protect your head/hair ✓
- Put on the mouth and nose guards ✓
- Clean and disinfect the floor regularly ✓
- Sterilize the equipment used often ✓
- Wash hands regularly with a disinfectant ✓
- Smoke free environment ✓

(Any 4) (4)

4.6 4.6.1 **FOUR advantages of packaging food products**

- To protect against microbiological contamination, dirt, insects, moisture, light, odours and colours ✓
- To facilitate the easy handling of food ✓
- To convey information ✓
- To identify the product ✓
- Attractiveness of product ✓
- Add value to the product ✓
- Longer shelf life ✓

(Any 4) (4)

4.6.2

<b>Ways of packaging</b>	<b>Example of material used</b>
• Rigid packaging ✓	• Metal cans/glass jars/bottles/laminated containers ✓
• Semi-rigid packaging ✓	• Aluminium containers/cartons/polystyrene ✓
• Flexible packaging ✓	• Types of plastic film/paper/aluminium foil ✓

(6)

- 4.7 4.7.1 **Main group of tourists**
- Domestic/local tourists ✓
  - International tourists ✓
- (2)

4.7.2

<b>Types of tourists</b>	<b>Description</b>
Educational tourists	People visit places to do research ✓
Adventure tourists	People want to do exciting things while on holidays ✓
Cultural tourists	People travel to do cultural events/interests ✓
Product routes tourists	It is associated with countryside/ tourists follow routes to see agricultural products produced/processed ✓

(4)

- 4.7.3 **Awareness for successful agritourism**
- Be environmental sensitive/preserve indigenous plants and animals ✓
  - Investigate the possibilities of developing land for agritourism purposes ✓
  - Contract local tourist operations to sell goods ✓
  - Make the destination a friendly area ✓
- (Any 3) (3)  
**[50]**

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