



# basic education

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

## **NATIONAL SENIOR CERTIFICATE**

**GRADE 12**

**AGRICULTURAL MANAGEMENT PRACTICES**

**NOVEMBER 2016**

**MEMORANDUM**

**MARKS: 200**

**This memorandum consists of 12 pages.**

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

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

**1.2 Matching items**

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

**1.3 Correct agricultural term**

- 1.3.1 Texture ✓  
1.3.2 Rainfall ✓  
1.3.3 Depreciation ✓  
1.3.4 Seasonal ✓  
1.3.5 Market ✓  
1.3.6 Price ✓  
1.3.7 Drying ✓  
1.3.8 Production route ✓  
1.3.9 Business plan ✓  
1.3.10 Motivation ✓ (10 x 1) (10)

**TOTALSECTION A: 50**

**SECTION B****QUESTION 2: PHYSICAL AND FINANCIAL PLANNING****2.1 Soil factors****2.1.1 FOUR limiting soil production factors**

- Slope of land ✓
  - Soil texture ✓
  - Soil depth ✓
  - Soil erosion ✓
  - Soil rockiness ✓
- (Any 4) (4)

**2.1.2 THREE ways to overcome slope**

- Contour ploughing ✓
  - Vegetation strips/Strip cropping ✓
  - Contour banks/stone banks/Ridging ✓
  - Minimum Tillage ✓
  - Terraces ✓
- (Any 3) (3)

**2.2 THREE factors on choice of agricultural production systems**

- Profitability ✓ – the farmer should consider the potential profitability of different systems by examining recent and future market trends ✓
  - Efficiency ✓ – increase the cost to production ratio/lower cost of production unit leads to higher profitability ✓
  - Markets ✓ – select markets which are near the farming enterprise, less costly and more profitable ✓
  - Feed availability ✓ – select the production system where pasture or own grains can be grown for provision of feed to livestock ✓
  - Veld type ✓ – the veld type determines the amount of available feed to the animal, sour veld loses its nutritional value and palatability in winter and supplementary feeding must be given. Sweet veld retains its palatability ✓.
- (Any 3 named and explained) (6)

2.3 **Differentiate between production systems**

Production factor	Type of production system		
	Intensive	Semi-intensive	Extensive
Type of shelter	Kept permanently in building or structure ✓	Kept temporarily in building/ structure and are allowed access to pasture in a fenced area ✓	No building/structure provided ✓
Feed provision	Feed ration provided daily throughout the production period ✓	Minimum feed ration provided and animals are allowed to graze/browse ✓	No feed provision, animals are roaming freely to graze/ browse ✓

(6)

2.4 **Labour**2.4.1 **Calculation of the monthly wage**

- Overtime = hours × days × 2 x hourly rate  
 $= (4 \times 2 \times R14,22) \times 2$  ✓  
 $= R227,52$  ✓

OR

$$\begin{aligned} \text{Overtime hours} &= \text{hours} \times \text{days} \times 2 \\ &= 4 \times 2 \times 2 \\ &= 16 \text{ hours} \end{aligned}$$

$$\begin{aligned} \text{Overtime payment} &= \text{hours} \times \text{hourly rate} \\ &= 16 \times R14,22 \text{ ✓} \\ &= R227,52 \text{ ✓} \end{aligned}$$

- Normal time = hours/week × weeks × rate/hour  
 $= 45 \times 4 \times R14,22$  ✓  
 $= R2\ 559,60$  ✓

OR

$$\begin{aligned} \text{Normal time hours} &= \text{hours} \times \text{days} \\ &= 45 \times 4 \\ &= 180 \text{ hours} \end{aligned}$$

$$\begin{aligned} \text{Normal payment} &= \text{hours} \times \text{hourly rate} \\ &= 180 \times R14,22 \text{ ✓} \\ &= R2\ 559,60 \text{ ✓} \end{aligned}$$

- Total wage = normal time + overtime  
 $= R2\ 560,00 + R227,52$   
 $= R2\ 787,12$  ✓

**Rubric**

- Correct calculation of overtime payment ✓ and correct answer to calculation ✓
- Correct calculation of normal time payment ✓ and correct answer to calculation ✓
- Correct adding of normal time and overtime (only answer) ✓ (5)

2.4.2 **THREE reasons for training of workers**

- Improves the skills of the workers ✓
- Which result in high productivity/Higher income for farmer ✓
- Creates a more secure future/higher income for worker/motivation ✓
- Provides higher standard of work/Safety precautions ✓
- To work with highly technology equipment ✓
- Make the worker more responsible ✓ (Any 3) (3)

2.5 **Tabulation of information on capital**

	<b>Picture</b>		
	<b>A</b>	<b>B</b>	<b>C</b>
<b>Type of capital</b>	Fixed capital ✓	Working/floating capital ✓	Movable capital ✓
<b>Definition of capital type</b>	Invested in fixed, long-term and durable/fixed assets ✓	Used in the everyday operations Used for commodity assets and to pay liabilities ✓	Can be turned into cash Used to obtain movable assets ✓
<b>Type of credit used</b>	Long term credit ✓	Short term credit ✓	Medium term credit ✓

(9)

2.6 **Variable and fixed costs**

2.6.1 **Categorising input costs**

<b>Variable costs</b>	<b>Fixed costs</b>
Pesticides and herbicides ✓	Depreciation ✓
Casual labour ✓	Permanent labourers ✓
Marketing cost ✓	Municipality property tax ✓
Fuel oil and lubricants ✓ (Any 3)	Hired management ✓ (Any 3)

(6)

2.6.2 **Explanations of variable costs and fixed costs**

a) Variable costs

- Represent the portion of total costs ✓ that can be controlled or avoided in a short term ✓
- Are susceptible to changes ✓ within a short time in a given production system ✓ (Any 1) (2)

b) Fixed costs

- Are the portion of costs which cannot be avoided or controlled ✓ in the short term irrespective of the scale or intensity of production ✓
- Cost that stays the same for a period ✓ of time irrespective of the amount that is produced ✓ (Any 1) (2)

**2.6.3 Calculation of the variable costs and fixed costs.**

- Variable costs = R10 000,00 + R30 000,00 + R20 000,00 + R10 000,00✓  
= R70 000,00✓ (2)

- Fixed costs = 150 000,00 + R15 000,00 + R5 000,00 + R50 000,00✓  
= R220 000,00✓ (2)

**OR use rubric**a) Variable costs

- Correct values added ✓
- Answer correct of own values✓ (CA)

b) Fixed costs

- Correct values added ✓
- Answer correct of own values ✓ (CA)

(2)

(2)

**[50]****QUESTION 3: ENTREPRENEURSHIP, RECORDING, MARKETING AND BUSINESS PLANNING****3.1 Economic importance of entrepreneurs**

- Entrepreneurs combine the factors of production to produce agricultural goods and services needed in the country✓
- They create employment opportunities ✓
- Competition between entrepreneurs leads to the production of better quality, goods and services which are sold at reasonable prices ✓
- Successful entrepreneurs create wealth by investing into new agricultural enterprises✓
- They contribute to the economic growth of a country by producing more agricultural goods and services/ Obtaining foreign capital✓
- Food Security✓
- Introducing latest information and technologies for food production ✓

(Any 4) (4)

**3.2 Formal and informal marketing channels****Formal**

- Markets with rules and regulations in marketing products/Retailers with good reputation ✓

**AND**

- Retailers ✓
- Cooperatives ✓
- Fresh produce markets ✓
- Export markets ✓

(Any 1 as example)

**Informal**

- No rules and regulations in marketing the products/to small unknown buyers✓

**AND**

- Vendors/Hawkers ✓
- Farm stalls ✓
- Spaza shops ✓
- Flea markets ✓

(Any 1 as example) (4)

**3.3 Records kept by a livestock farmer**

- Growth rate records ✓
- Mortality records/Total number ✓
- Feed records ✓
- Birth records ✓
- Medication/vaccination records ✓
- Slaughter records ✓
- Feed-to-growth-ratio records ✓
- Conception records ✓
- Cow/calve ratio at weaning ✓
- Kg produced per ha ✓

(Any 5) (5)

**3.4 Income and Expenditure Account**

**3.4.1 Gross profit**

- Gross profit = sale – cost of sale  
= R461 060 – R20 200 ✓  
= R440 860 ✓

(2)

**3.4.2 Net profit**

- Net profit = gross profit – overheads  
= R440 860 – R34 000 ✓  
= R406 860 ✓

(2)

**3.4.3 Retained profit**

- Retained profit = net profit – withdrawals  
= R406 860 – R210 000 ✓  
= 196 860 ✓

**(2 Marks are allocated for each of the above 3.4.1-3.4.3 if only the correct answer is provided)**

(2)

**3.5 Balance sheet for a vegetable farming enterprise.**

ASSETS		LIABILITIES	
<b>Current asset</b>		<b>Current liabilities</b>	
Cash	R15 000	Accounts payable	R100 000
Accounts receivable	R109 000	Debts payable	R48 000
Inventory	R210 000	Long-term liabilities	R108 000 ✓
Fixed assets	R690 000 ✓	NET CAPITAL	R768 000 ✓
<b>TOTAL</b>	R1 024 000 ✓		R1 024 000 ✓

✓

**Rubric:**

- Correct balance sheet (can be one underneath each other) ✓
- Assets together ✓
- Liabilities together ✓
- Net capital must be calculated ✓
- Must balance at the end ✓
- Correct transferring of information ✓

(6)

- 3.6 **Business plan**
- 3.6.1 **Agri-business overview**
- A general summary of the business✓/A description of the current status of the business ✓ (Any 1)
- With reference to ownership
- Sole ownership ✓/
  - Shared ownership✓/partnership✓/cooperative✓/company ✓ (Any 1) (2)
- 3.6.2 **Vision**
- A description of what the business would be like in the future ✓
- Mission**
- Processes that will lead to the vision ✓
  - Methods to go forward to reach the end goal ✓ (Any 1) (2)
- 3.6.3 **Marketing plan**
- Marketing outline of what will be produced ✓
  - Including market research ✓
  - Possible markets ✓
  - Advertising and promotion of product ✓
  - Means of transport of product ✓
  - Price setting of product ✓ (Any 2) (2)
- 3.6.4 **Financial plan**
- An outline of the funds needed to start and operate the business ✓
  - Budget ✓
  - Source of capital ✓
  - Distribution of funds ✓ (Any 2) (2)
- 3.7 **Marketing of Agricultural Products (Act 47 of 1996)**
- To protect South African farmers from unfair international competition✓
  - It deregulated former controls in the agricultural sector and it eliminated subsidies ✓ (2)
- 3.8 **Supply and demand**
- 3.8.1 **Supply**
- Graph B represents supply ✓ (1)
- 3.8.2 **Demand**
- Graph A represents demand ✓ (1)
- 3.8.3 **Determining of price**
- The price is determine by the interaction of supply and demand ✓
  - If the supply is high the price will be low and vice versa ✓
  - If the demand is high the price will be high and vice versa ✓
  - The price is then set at an equilibrium point where the buyer and seller agree on a selling price ✓ (4)
- 3.8.4 **Predicted price**
- R27,00 (Allow R26,00–R28,00) ✓ (1)



**3.9 Direct marketing versus Contract marketing**

FARMER A		FARMER B	
ADVANTAGES TO:		ADVANTAGES TO:	
FARMER	CONSUMER	FARMER	CONSUMER
The farmer can take Advantage of favourable market prices ✓ Producer may receive higher prices. Marketing costs are low ✓ (Any 1)	Can negotiate prices with the farmer ✓ There are few legal costs which may increase the price ✓ (Any 1)	The contract company supports the farmer with inputs, technical support, equipment, loans ✓ The farmer is always sure of a market and a fixed income ✓ (Any 1)	Sure of high quality supplies in a specific time ✓ Protected from frequent price changes ✓ (Any 1)

(4)

**3.10 Definition of terms used in farm management**

**3.10.1 Cash flow**

- Is the movement of funds through the business ✓
- During a specific period ✓

(2)

**3.10.2 Turnover**

- The sum total of all the trading receipts ✓ for a period of time ✓

(2)

[50]

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

**4.1 Harvesting**

**4.1.1 Product harvesting at correct time**

- Higher quality product ✓
- Get higher prices on the market ✓
- Minimise wastage ✓

(Any 1) (1)

**4.1.2 Product harvesting and quality control**

- Harvest during the cooler times of the day ✓
- Handle products with care ✓
- Market as soon as possible after harvesting ✓
- Correct storage ✓
- Cooling of products before and during transportation ✓
- Pack in protective/correct containers ✓
- Transport overnight/ Make use of faster transport ✓
- Prevent contamination ✓

(Any 4) (4)

- 4.2 Transport of agricultural products**
- 4.2.1 Sea**
- Big volumes for export markets ✓
  - Does not perish easy ✓
- (Any 1) (1)
- 4.2.2 Rail**
- Big volumes mostly non-perishable products ✓
  - Local or neighbouring countries ✓
- (Any 1) (1)
- 4.2.3 Air**
- Highly perishable smaller volume products for export ✓
  - Air transport is Quick
- (Any 1) (1)
- 4.2.4 Road**
- Quick delivery of smaller quantities perishable products to towns/to markets ✓
  - Local supply ✓
- (Any 1) (1)
- 4.3 Processing methods**
- Sugaring ✓
  - Salting ✓
  - Drying ✓
  - Freezing ✓
  - Making fruit juice ✓
  - Making jam ✓
  - Heat/Sterilisation/Pasteurization/blanching ✓
  - Smoking ✓
- (Any 4) (4)
- 4.4 Criteria for grading**
- Size ✓
  - Mass/Weight ✓
  - Colour ✓
  - Form/Firmness ✓
  - Damage ✓
  - Stage of development/Maturity Stage ✓
  - Cleanliness ✓
  - Sugar content/Taste ✓
- (Any 4) (4)
- 4.5 Marketing chain**
- 4.5.1** • Fresh produce market ✓ (1)
- 4.5.2** • Food processor ✓ (1)
- 4.5.3** • Food retailers ✓ (1)

**4.6 Type of tourists**

- 4.6.1 a) **Inbound tourists**  
People/foreigners coming into the country from another country. ✓ (1)
- b) **Outbound tourists**  
People who leave their country to visit other countries. ✓ (1)

**4.6.2 Agritourism empowerment**

- Create employment opportunities ✓
- Uplifts the standard of living for community members ✓
- Helps in preservation of ecosystems ✓
- Promotes cultural exchange programmes ✓
- Develop entrepreneurship ✓ (Any 3) (3)

**4.7 Role of producer organisations**

- Do market research ✓
- Advertise/Promote the product ✓
- Assist the farmers on regulatory/policy issues and market trends ✓
- Advisory service to farmers/ Technical assistance ✓
- Financial advice ✓
- Marketing of product ✓ (Any 4) (4)

**4.8 Reasons of packaging**

- Protection against micro-biological contamination, dirt, insects, moisture, migration of odour/light ✓
- Facilitates handling of the food/storage ✓
- Conveys information ✓
- Identifies the product ✓
- Advertising ✓
- Longer shelf life ✓
- Value adding ✓ (Any 4) (4)

**4.9 Advantages of proper labour management**

- Time saving/faster work completion/Labour peace ✓
- More efficient use of labour/better productivity of labours ✓
- Each worker gains more skills in their part of specialisation and becomes an expert ✓
- Allocation of equipment for each operation becomes possible ✓
- Supervisor will know the responsibility of each labourer ✓
- Improving safety for workers
- Higher income for farmer (Any 4) (4)

**4.10 Farm management process**

- 4.10.1 Control ✓ (1)
- 4.10.2 Planning ✓ (1)
- 4.10.3 Organising ✓ (1)
- 4.10.4 Coordinate ✓ (1)
- 4.10.5 Motivation ✓ (1)

**4.11 Motivation****4.11.1 Physical needs of farm employees**

- Physical security/safety/Medical support ✓
- Financial/Job security/promotion✓
- Housing facilities✓
- Feeding plan ✓
- Protective clothing ✓
- Recreation facilities✓
- Transport✓

(Any 3) (3)

**4.11.2 Psychological needs of farm employees**

- Accepted by others / human rights ✓
- Being appreciated / ✓
- Being acknowledged ✓
- Self-fulfilment ✓

(Any 2) (2)

**4.12 Factors which determine the economic viability of a farm**

- Production/Yield per hectare – Better management leads to the higher yield/production, the more viable the farm will be ✓
- Price obtained per unit – the higher product prices, the more viable the farm will be ✓
- Costs of inputs – lowering costs will make a farm more viable ✓

**OR**

- Production/Yield per hectare – Poor management leads to lower yield/production, the less viable the farm will be ✓
- Price obtained per unit –the lower product prices, the less viable the farm will be ✓
- Costs of inputs – high input costs will make a farm less viable ✓

(3)  
**[50]****TOTAL SECTION B: 150**  
**GRAND TOTAL: 200**