



basic education

Department:
Basic Education
REPUBLIC OF SOUTH AFRICA

NATIONAL SENIOR CERTIFICATE

GRADE 12

AGRICULTURAL MANAGEMENT PRACTICES

NOVEMBER 2017

MARKING GUIDELINES

MARKS: 200

These marking guidelines consist of 12 pages.

SECTION A**QUESTION 1****1.1 Multiple Choice**

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

1.2 Matching items

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

1.3 Correct agricultural terms

- 1.3.1 Fixed capital ✓
- 1.3.2 Calibration /Calibrate ✓
- 1.3.3 Enterprise budget /Branch budget /Micro budget ✓
- 1.3.4 Sweet veld ✓
- 1.3.5 Entrepreneurship ✓
- 1.3.6 Time register/Time sheet ✓
- 1.3.7 Expiry date / sell by date / best before date / Expiring ✓
- 1.3.8 Planning ✓
- 1.3.9 Standardisation ✓
- 1.3.10 Invoice ✓ (10 x 1) (10)

TOTAL SECTION A: 50

SECTION B

QUESTION 2: PHYSICAL AND FINANCIAL PLANNING

2.1 Irrigation

2.1.1 THREE basic requirements of soil for irrigation purposes

- Adequate infiltration/absorption ✓
 - Internal drainage/soil depth ✓
 - Incline/slope/topography ✓
 - Water holding capacity ✓
- (Any 3) (3)

2.1.2 THREE methods to control water runoff

- Develop stable waterways ✓
 - Apply contour ploughing ✓
 - Develop contour ridges/terracing ✓
 - Improve the plant coverage on the soils ✓
 - Improve surface infiltration ✓
- (Any 3) (3)

2.2 Physical effects of addition organic matter to soil

PHYSICAL ASPECT	ORGANICALLY RICH SOILS	ORGANICALLY POOR SOILS
Soil temperature	More constant temperature/small effect on temperature ✓	Fluctuating temperature will tend to become more stable ✓
Soil erosion	Less soil erosion/the effect will be small ✓	Soil erosion will decrease drastically with addition of organic material ✓

(4)

2.3 Natural pastures

2.3.1 FOUR reasons for a camp system

- To make rotational grazing possible ✓
 - To make regrowth possible during resting period ✓
 - To divide livestock in different herds/separate different type of animals ✓
 - To prevent overgrazing due to moving animals between camps ✓
 - Different veld types with the same properties can be grouped together making it easier to manage ✓
 - To adhere to the veld carrying capacity ✓
 - Herd health management ✓
 - To manage breeding systems easier ✓
- (Any 4) (4)

- 2.3.2 **FOUR practices that lead to deterioration of veld**
- Over grazing ✓
 - Incorrect burning of veld ✓
 - Poor veld management/ ploughing of veld ✓
 - Too many vehicle movement ✓
 - Poor parasite(termite) control ✓
 - Allowing invader species ✓
 - Ill-considered use of herbicides ✓
- (Any 4) (4)
- 2.4 **Define between the sources of capital**
- 2.4.1 **Own capital:**
- Money that the farmer has saved or from the farmers' investments ✓
 - Money obtained from inheritance, grants, sponsorships ✓
- (Any 1) (1)
- 2.4.2 **Credit:**
- Money borrowed/loan obtained from a financial institution and paid back with interest ✓
 - Account opened at different agricultural service suppliers or agricultural organisations ✓
- (Any 1) (1)
- 2.4.3 **Production capital:**
- Money obtained from the selling of produced agricultural products ✓
- (1)
- 2.5 **Graph on law of diminishing return**
- 2.5.1 **The economic characteristic of soil shown in the graph**
- Law of diminishing returns ✓
- (1)
- 2.5.2 **Reason for the graph not starting at a yield of 0 ton/ha**
- Even if no fertiliser is added to the soil ✓
 - The crop will still produce a yield ✓
 - From the nutrients that is naturally in soils ✓
- (3)
- 2.6 **FOUR methods to increase productivity and sustainable production on a specific land**
- Adapt production to scientific methods ✓
 - Make use of technology ✓
 - Irrigate the land ✓
 - Increase nutrient level of the land ✓
 - Choose the type of farming that suits the nature of the soil ✓
 - Obtain information on effective production methods ✓
 - Improve the physical characteristics of the soil ✓
- (Any 4) (4)
- 2.7 **Labour**
- 2.7.1 **THREE functions of a hired employee**
- Physical labour functions ✓
 - Supervisory functions ✓
 - Management functions ✓
- (3)

- 2.7.2 **FOUR methods of improving the conditions of health and safety**
- Workplace must be free of dangerous substances ✓
 - Workplace must be organised in such a manner to prevent injuries ✓
 - All dangerous zone must be indicated or marked ✓
 - Provide training to the workers on the correct methods and use of equipment ✓
 - Cover all dangerous moving parts on equipment ✓
 - Indicate where safety equipment is situated ✓
 - Provide a fully equipped first aid kit ✓
 - Train workers on basic first aid ✓
 - Provide contact number in case of emergency ✓ (Any 4) (4)
- 2.8 **Effect of incorrect calibration on degradation**
- Pollution of soil and water sources increases with too high concentration ✓
 - Too high concentration can kill the natural enemies or beneficial insects ✓
 - Too low concentration can increase competition amongst plants and weeds ✓
 - Too high concentration destroys soil microbial population ✓
 - Too high concentration can affect plant growth ✓ (Any 3) (3)
- 2.9 **Budget**
- 2.9.1 **Identify the type of budget**
- Whole farm budget/animal and crop enterprise budget ✓
- Motivation**
- It incorporates the budget of all enterprises on the farm/incorporates the budget for livestock and crops ✓ (2)
- 2.9.2 **TWO reasons for compiling a budget for a farm enterprise**
- Predict the expenses and revenues/predict the possible profit or loss ✓
 - As a financial control measure/prevent over or under spending ✓
 - To indicate areas/time of cost constrains ✓
 - To determine credit needs ✓
 - Use as an aid in management ✓ (Any 2) (2)
- 2.9.3 **Calculate of items from the data given in the budget**
- (a) **Total costs of livestock enterprise**
- Total costs = R553 000 ✓ (1)
- (b) **Total returns of livestock**
- Total returns = R1 016 000 ✓ (1)
- (c) **Total costs for the crops enterprise**
- Total costs = R128 000 ✓ (1)
- (d) **Total returns for crop enterprise**
- Total returns = R167 000 ✓ (1)

2.9.4 Net profit or loss

- Profit/loss = total income – total expenditure
= R1 016 000 + R167 000 – R553 000 – R128 000 ✓/
or (R1 016 000 + R167 000) – (R553 000 + R128 000)
= R502 000 ✓
- It is a profit ✓

OR

- Returns = R1 016 000 + R167 000
= R1 183 000
- Costs = R553 000 + R128 000
= R681 000
- Profit/loss = total income – total expenditure
= R1 183 000 – R681 000 ✓
= R502 000 ✓
- It is a profit ✓

(NB: - Use values of 2.9.3 (a) – (d) for calculation of profit or loss)

- If cost or return is calculated wrongly only marks for profit or loss if calculated according to cost and return.

(3)
[50]

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

3.1 Entrepreneur

3.1.1 Definition of an entrepreneur

- A person who see an opportunity in the market ✓
- Take the risk in starting a new business ✓
- Using the resources available ✓
- To deliver a product or service ✓

(4)

3.1.2 FOUR criteria that should be considered

- The time it takes for the product to be ready for consumers. ✓
- The value of the product ✓
- The risk involved ✓
- The uniqueness of the product ✓
- Whether the business venture matches the personal skills and goals of the entrepreneur ✓
- Available resources ✓
- Markets available ✓
- The profits and returns to be made ✓

(Any 4) (4)

3.2 SWOT analyses and an example

Components	Description
Strengths ✓	Describe the strengths of a business using an example. ✓
Weaknesses ✓	Describe the weakness of a business using an example. ✓
Opportunities ✓	Describe the opportunities of a business using an example. ✓
Threats ✓	Describe the threats of a business using an example. ✓

(8)

3.3 **Product of choice - All activities should relate to product of choice**

Rearrange activities with reason (e.g. Milk)

- Harvesting ✓ and appropriate reason e.g. Cows being milked ✓
- Storage ✓ and appropriate reason e.g. Milk is stored in cooling tank ✓
- Grading ✓ and appropriate reason e.g. Sample is taken for grading ✓
- Specialised transport ✓ appropriate reason e.g. Cooling truck transport milk to processor ✓
- Processing ✓ appropriate reason e.g. Milk processed into various products ✓
- Packaging ✓ and appropriate reason e.g. After processing milk is bagged, bottled etc. ✓

(Any 5 in correct order for mentioned product)

Note –

- The first activity is harvesting
- Mark according to the product
- Reason must link to the product
- Storage position is the most likely to change
- Specialised transport indicates bulk, cold storage or specialised most likely to change

(10)

3.4 **TWO pricing objectives which are guiding the pricing decisions**

- To make profit ✓
- To have more stable prices ✓
- To maintaining sale volumes ✓
- To increase the market share ✓

(Any 2)

(2)

3.5 **Scenario on marketing costs**

3.5.1 **TWO main factors determining price**

- Demand ✓
- Supply ✓

(2)

3.5.2 **Calculate profit at Market A**

- Produce = total × risk
 $= 2\,000 \times 70\%$ ✓
 $= 1\,400$ ✓
- Profit = income – expenditure
 $= 1\,400 \times R40$ ✓ – $50\text{ km} \times R12,50 \times 2$ ✓
 $= R56\,000 - R1\,250,00$
 $= R54\,750$ ✓

OR (profit calculation)

- Income = $1\,400 \times R40$
 $= R56\,000$ ✓
- Expenditure = $50\text{ km} \times R12,50 \times 2$
 $= R1\,250$ ✓
- Profit = income – expenditure
 $= R56\,000 - R1\,250,00$
 $= R54\,750$ ✓

(5)

3.5.3 Calculate profit at Market B

- Profit = income – expenditure
 $= 2\,000 \times R30 \checkmark - 70\text{ km} \times R12,50 \times 2 \checkmark$
 $= R60\,000 - R1\,750,00$
 $= R58\,250 \checkmark$

OR

- Income = $2\,000 \times R30$
 $= R60\,000 \checkmark$
- Expenditure = $70\text{ km} \times 2 \times R12,50$
 $= R1\,750,00 \checkmark$
- Profit = income – expenditure
 $= R60\,000 - R1\,750,00$
 $= R58\,250 \checkmark$

(3)

3.5.4 Recommendation to farmer

- Sell produce of week 3 at Market B if not stored/highly perishable \checkmark
- If possible store the produce of week 3 to week 4 \checkmark
- Sell produce of week 4 and stored produce at Market B to obtain the highest profit \checkmark

OR

- Sell produce of week 3 at Market B if not stored/highly perishable \checkmark
- Harvest everything in week 4 for a higher profit $\checkmark \checkmark$

(3)

3.6 Balance sheet**3.6.1 ITEMS**

Current asset	Non-current assets	Current liabilities	Non-current liabilities
Inventory \checkmark	Property \checkmark	Creditors \checkmark	Mortgage bond \checkmark
Debtors \checkmark	Plants and equipment \checkmark		

(6)

3.6.2 Type of a farm record prepared from assets and liabilities

- Balance sheet \checkmark

(1)

3.6.3 Net worth

- Net worth = Total value of assets – Total value of liabilities
 $= R\,2\,900\,000,00 - R\,1\,200\,000,00 \checkmark$
 $= R\,1\,700\,000,00 \checkmark$

(2)

[50]

QUESTION 4: HARVESTING, PROCESSING, MANAGEMENT AND AGRITOURISM**4.1 Food legislation****4.1.1 FIVE specifications regarding labelling regulations**

- Trade mark ✓
- Description of the product content ✓
- Pictorial representation of the contents or serving suggestions ✓
- Contact details of the manufacturer of the product ✓
- List of ingredients ✓
- The nutritional information ✓
- Quantity of produce ✓
- Possible allergies not related to product ✓ (Any 5) (5)

4.1.2 FOUR important aspects of the National Health Act, 2003 (Act 61 of 2003)

- Minimum requirements for processing premises ✓
- Transportation and handling of food ✓
- Control and prevention of notifiable diseases (food poisoning) ✓
- Regulations concerning inspections and investigations ✓ (4)

4.2 Distinguish between fermentation and decomposition**4.2.1 Fermentation**

- A process facilitated by man to produce value added products ✓
- Good microbes are activated/added ✓ (2)

4.2.2 Decomposition

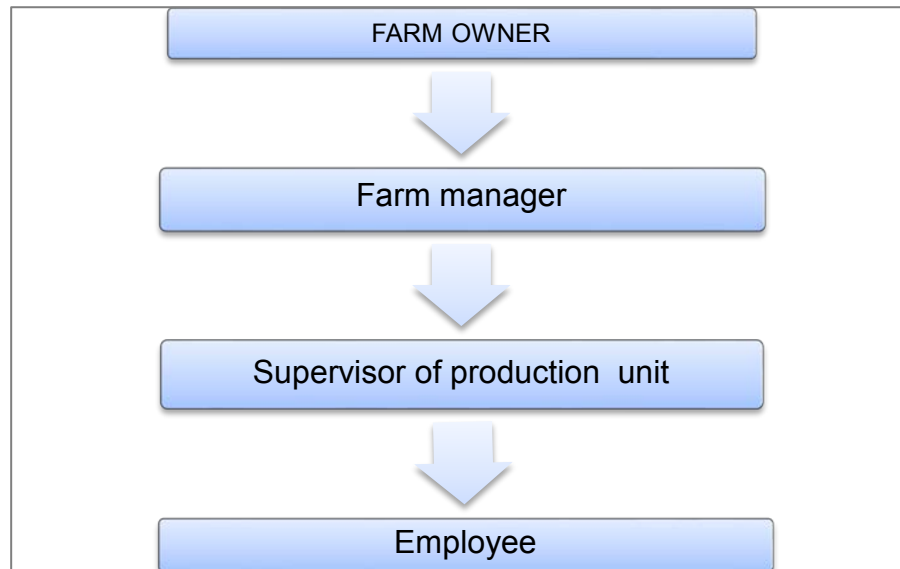
- A process of food spoilage (food decay) ✓
- Unwanted microbes activated ✓ (2)

4.3 THREE examples of food processed through filtration

- Wine ✓
- Beer ✓
- Fruit juices ✓
- Gelatine ✓
- Vinegar ✓
- Oils ✓ (Any 3) (3)

4.4 Name and describe THREE factors influencing processing

- Perishability (shelf life)✓– the more perishable the product the quicker processing must take place ✓
- Mass or raw products✓– higher masses need more sophisticated equipment for processing ✓
- Distance from markets✓– the longer distance products must travel, the more preserved the product must be ✓
- Infrastructure✓– infrastructure on the farm will determine possibility of processing and/or type of processing ✓
- Cost of processing facilities✓– capital available for processing unit or credit needed to supplement available capital ✓
- Cost of processing method✓– additional costs and the corresponding profit to the higher input ✓ (Any 3 x 2) (6)

4.5 **A typical agricultural organogram structure****Rubric**

- If all four is mentioned in the correct order – 2 marks ✓✓
- All four mentioned in the correct order, directions and levels clearly visible with blocks but without line or arrows – 3 marks ✓✓✓
- Correct organogram/ correct order, direction and levels with arrows/lines – 4 marks ✓✓✓✓ (4)

4.6 **Control as a managerial principle**4.6.1 **Definition**

- Supervision of activities✓ according to present schedule/planning✓ (2)

4.6.2 **Method**

- Regular inspections ✓
- To make sure activities are being undertaken as planned ✓ (2)

4.6.3 **Quality assurance**

- Compare to a set of standards ✓ (1)

4.7 **FOUR reasons for planning**

- Important in decision making ✓
- Important to quantify future risks and uncertainties such as changes in:
 - patterns the resources ✓
 - technological and biological relationship ✓
 - prices of inputs ✓
- Risks and uncertainties ✓ (Any 4) (4)

- 4.8 **THREE factors of decision making**
- The speed with which the decisions are made ✓
 - The degree of accuracy with which the decisions are taken ✓
 - The acceptability of the decisions for those who are affected by them ✓
- (3)
- 4.9 **Name and describe TWO aspects of organisation**
- Organising the business ✓
 - Management activities like administration and financial aspects ✓
 - Organising the farming activities ✓
 - Correct combination (mix) ✓
 - and application of resources ✓
- (5)
- 4.10 **FIVE activities of agritourism**
- Place of interest for agricultural exposure ✓
 - An agricultural or association enterprise farm ✓
 - Point of sale of products /self-harvesting of products ✓
 - Working holiday ✓
 - Farm accommodation ✓
 - Game drives/off road routes ✓
 - Product routes ✓
 - Hunting / Fishing/ Bird watching ✓
 - Hiking trails ✓
- (Any 5) (5)
- 4.11 **TWO roles of a farmer in agritourism.**
- To promote the enterprise and its product ✓
 - To motivate youth and women not to abandon country side ✓
 - Preserving nature ✓
- (Any 2) (2)
- [50]**
- TOTAL SECTION B: 150**
- GRAND TOTAL: 200**