



basic education

Department:
Basic Education
REPUBLIC OF SOUTH AFRICA

SENIOR CERTIFICATE EXAMINATIONS/ NATIONAL SENIOR CERTIFICATE EXAMINATIONS

AGRICULTURAL MANAGEMENT PRACTICES

2021

MARKING GUIDELINES

MARKS: 200

These marking guidelines consist of 11 pages.

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

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

(10 x 2) (20)

1.2 Matching items

- 1.2.1 C ✓✓
- 1.2.2 F ✓✓
- 1.2.3 K ✓✓
- 1.2.4 J ✓✓
- 1.2.5 A ✓✓
- 1.2.6 H ✓✓
- 1.2.7 L ✓✓
- 1.2.8 B ✓✓
- 1.2.9 D ✓✓
- 1.2.10 G ✓✓

(10 x 2) (20)

1.3 Agricultural terms

- 1.3.1 Surplus ✓
- 1.3.2 Rent ✓
- 1.3.3 Adventure tourists ✓
- 1.3.4 Soil drainage/drainability ✓
- 1.3.5 Entrepreneur ✓

(5 x 1) (5)

1.4 Underlined words

- 1.4.1 Sweet ✓
- 1.4.2 Neutral ✓
- 1.4.3 Intensive ✓
- 1.4.4 Profit margin/Profit ✓
- 1.4.5 Contract ✓

(5 x 1) (5)

TOTAL SECTION A 50

SECTION B**QUESTION 2: PHYSICAL AND FINANCIAL PLANNING****2.1 Soil temperature****2.1.1 THREE plant growth processes influenced by soil temperature**

- Germination of seeds ✓
- Growth rate of plants ✓
- Ripening of crops ✓
- Effective water absorption ✓
- Effective nutrient absorption ✓
- Effective rate of chemical reactions ✓ (Any 3) (3)

2.1.2 Comparison between dark coloured soils and light coloured soils

- Dark coloured soils absorb more heat ✓
- While light coloured soils absorb less/repel heat ✓ (2)

2.1.3 Relationship between soil temperature and soil depth

- During the day, soils with a shallow depth quickly absorb heat ✓
- While deeper soils gradually absorb the heat ✓
- During the night, soils with a shallow depth drastically lose the heat to the atmosphere ✓
- While deeper soils can hold on to the heat for much longer periods ✓
- Deeper soil temperature is more constant while shallow soil temperature fluctuates more ✓ (Any 4) (4)

2.2 Soil maps and soil potential**Chemical composition on soil potential ✓**

- Indicate all available minerals in soils needed or not needed for production ✓
- Indicate mineral levels that can be detrimental to or toxic for production ✓
- Indicate the level of nutrients for production ✓
- Indicate deficiencies that must be corrected by fertilizers ✓
- Soil reaction changes is indicated ✓

Physical characteristics ✓

- Areas of different soil structure are indicated ✓
- Indicate areas where the soil texture are different ✓
- Areas with similar soil depths are indicated ✓
- Indicate soil colour useful for irrigation and drainage ✓

Morphological properties ✓

- Homogeneous areas of soil classification is indicated ✓
- Zones with similar soil profiles are indicated ✓

Soil classification data ✓

- Areas with the similar soil series are indicated ✓
- Indicating areas with similar soil forms ✓

(Any 2 aspects mentioned and discussed) (4)

2.3 Natural grazing

2.3.1 FOUR factors that determine the productivity of veld

- Vegetation/plant composition/regrowth potential ✓
- Soil/land/topography ✓
- Rainfall ✓
- Temperature ✓
- Soil condition ✓

(Any 4) (4)

2.3.2 FOUR guidelines to ensure enough grazing throughout the season

- Practise rotational grazing ✓
- Adhere to the carrying capacity of the veld ✓
- Control veld burning ✓
- Remove alien/invasive plants ✓
- Rest/Spare camps ✓
- Cutting and baling of veld/grass as hay ✓
- Plant supplement pasture to aid in times of shortages ✓

(Any 4) (4)

2.4 Sources of information for the agricultural sector

2.4.1 Traditional agricultural practices ✓

(1)

2.4.2 Department of Agriculture ✓

(1)

2.4.3 News media ✓

(1)

2.4.4 Agricultural research institutes ✓

(1)

2.4.5 Marketing organisations ✓

(1)

2.5 Labour

2.5.1 THREE Challenges regarding farm labour

- Alcoholism/alcohol abuse ✓
- Illiteracy ✓
- Diseases/STD/TB/HIV/Aids/Covid-19 ✓
- Domestic violence / injuries ✓

(Any 3) (3)

2.5.2 FOUR Measures to improve the conditions for farm workers

- Provide adequate and better living conditions ✓
- Introduce health education and facilities for the workers ✓
- Introduce ABET classes on the farm ✓
- Provide training/skills development for farm workers ✓
- Provide better working conditions ✓
- Better wages ✓
- Develop recreation facilities ✓
- Increase their motivation ✓

(Any 4) (4)

2.6 **Precision farming**2.6.1 **Precision farming equipment on the picture**

- Drone ✓

(1)

2.6.2 **FIVE uses of remote sensing technology in production enterprise**

- Soil and field analysis ✓
- Germination value ✓
- Crop spraying and spot spraying ✓
- Crop mapping and surveying ✓
- Irrigation monitoring and management ✓
- Real time livestock management ✓
- Veld management ✓
- Check plant health ✓
- Weed detection ✓
- Draining maps ✓
- Yield predictions ✓
- Animal detection ✓
- Spotting animal health ✓

(Any 5)

(5)

2.6.3 **THREE advantages of using this technology.**

- Improves crop yields ✓
- Saves time ✓
- Helps make better management decisions because of more accurate data obtained ✓
- Increases overall profitability of the business ✓

(Any 3)

(3)

2.7 **Basic components of a budget**

DESCRIPTION OF COMPONENT	COMPONENT OF BUDGET	EXAMPLE
The available inventory	Resources ✓	Land, capital, water, labour, vegetation ✓ (Any 1)
All the expenses of the farming enterprise and their applications in units per budget	Financial inputs ✓	Labour, mechanisation, materials, biological inputs ✓ (Any 1)
All the unknowns of the production process	Parameters ✓	Prices, application of inputs, yields, time of inputs or outputs ✓ (Any 1)

(6)

2.8 **Examples of intensive farming methods in crops that are water-based**

- Hydroponics ✓
- Aquaponics ✓

(2)

[50]

QUESTION : 3 ENTREPRENEURSHIP, RECORDING, MARKETING, BUSINESS PLANNING AND ORGANISED AGRICULTURE**3.1 Cash flow statement****3.1.1 Calculate:**

- (a) R31 640,00 ✓
- (b) R40 578,00 ✓
- (c) R8 938,00 ✓
- (d) R60 938,00 ✓

(4)

3.1.2 Reasons for difference between actual and budgeted values of transport

- Increase in fuel prices ✓
- Increase in toll gate prices/tollgate fee ✓
- Increase in wages of the drivers ✓
- Increase in amount of products produced/number of trips/bigger vehicle ✓
- Increase in transport distances ✓

(Any 3) (3)

3.1.3 TWO uses for cash flow statement

- Determine availability of funds ✓
- For financial planning and management ✓
- To seek solutions for cash flow problems ✓
- To monitor expenses ✓
- To compare expenses and income with budgeted values and correct errors ✓
- To indicate where there are surplus funds ✓

(Any 2) (2)

3.2 Business plan**3.2.1 Type of capital**

- Fixed capital / long-term capital ✓

(Any 1) (1)

3.2.2 ONE institution to acquire capital

- Commercial bank ✓
- Land bank ✓
- Non-banking financial Institutions ✓

(Any 1) (1)

3.2.3 Principles/Characteristics of objectives for a business plan

- Specific ✓
- Measureable ✓
- Achievable ✓
- Realistic ✓
- Timeframe ✓

(5)

3.3 Organogram

- 3.3.1 e ✓ (1)
 3.3.2 a ✓ (1)
 3.3.3 d ✓ (1)
 3.3.4 a ✓ (1)
 3.3.5 c ✓ (1)

3.4 Recording**3.4.1 The exchange of source documents**

- Farmer A sends an order form to Farmer B ✓
- Farmer B issues an invoice to Farmer A ✓
- Farmer A sends proof of payment document to Farmer B ✓
- Farmer B issues a receipt to Farmer A ✓ (Any 3) (3)

3.4.2 Record keeping

- Assist with planning ✓
- Assist with budgeting ✓
- Assist with management ✓
- Helps to comply with legal requirements ✓
- Measure the outcomes of management decisions ✓ (Any 2) (2)

3.5 Niche market**3.5.1 Concept of a niche market**

- Focus on a specific client group for marketing a product ✓
- This part of the market is usually very small ✓
- Product aims to satisfy specific requirements of the consumer (e.g. price range, quality, demography) ✓ (Any 3) (3)

3.5.2 THREE reasons for niche market

- Opportunity to create brand loyalty ✓
- Improved outreach ✓
- Less competition ✓
- Cost effective ✓
- Faster growth ✓
- Targeted audience ✓
- Increased expertise ✓
- Enhanced monetization/Income ✓ (Any 3) (3)

3.6 Effect on price

- 3.6.1 Decrease price ✓ (1)
 3.6.2 Increase price ✓ (1)
 3.6.3 Decrease price ✓ (1)
 3.6.4 Increase price ✓ (1)

3.7 FOUR advantages of cooperative marketing

- The producer members are the owners and they have full control and any profit is shared amongst them ✓
- Risks are shared by all members ✓
- Members receive scale benefits in purchasing and sales ✓
- A cooperative can grant credit to producers ✓
- They have more bargaining power on the market ✓
- Farming necessities and services are provided cheaper ✓
- The producer has more time to spend on his farming activities ✓
- A more even flow of products to the market thus higher average prices ✓
- Farmers do not have to build their own storage or packaging facilities ✓
- Producers receive a guaranteed price that gives them financial security ✓
- It ensures orderly and effective marketing ✓
- It simplifies management and accounting ✓
- Competition is less ✓

(Any 4) (4)

3.8 Perishable agricultural produce**3.8.1 Perishability**

- This means that the products have a certain shelf life ✓
- Are likely to decay or go bad quickly after a certain period of time ✓

(2)

3.8.2 THREE marketing function

- Storage of products in a dry place ✓
- Packaging of product in a ridged container ✓
- Preservation of the product ✓
- Processing of the product ✓

(Any 3) (3)

3.9 Database**3.9.1 THREE advantages of using a computer database**

- Access to information is easier ✓
- Calculations are done more accurately ✓
- More information can be stored in a smaller space ✓
- Comparisons can be done more easily ✓
- Can use proven and reliable programs for production, finance and physical records ✓
- Transfer of information is easier ✓

(Any 3) (3)

3.9.2 TWO disadvantages of using a computer database

- The farmer must be computer literate ✓
- In case of a power failure records are not accessible ✓
- It is expensive to purchase computers ✓
- Technology must be upgraded on a regular basis ✓
- It takes time to update data ✓
- Computer can be damaged ✓

(Any 2) (2)

[50]

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

- | | | |
|-------|--------------------|-----|
| 4.1.1 | Describe/Analyse ✓ | (1) |
| 4.1.2 | Solutions ✓ | (1) |
| 4.1.3 | Evaluate ✓ | (1) |
| 4.1.4 | Solution/option ✓ | (1) |
| 4.1.5 | Implement ✓ | (1) |
| 4.1.6 | Follow-up ✓ | (1) |

4.2 Tasks of a manager

- | | | |
|-------|-------------------|-----|
| 4.2.1 | Communication ✓ | (1) |
| 4.2.2 | Control ✓ | (1) |
| 4.2.3 | Motivation ✓ | (1) |
| 4.2.4 | Planning ✓ | (1) |
| 4.2.5 | Decision making ✓ | (1) |

4.3 Handling of animals**4.3.1 THREE guidelines for handling or treatment of animals at the abattoir**

- Pain-free slaughtering ✓
 - Separate genders ✓
 - Separate different ages ✓
 - Animals must be kept calm ✓
 - Animals must be protected from injuries and bruises ✓
 - Animals must be provided with clean water and food ✓
- (Any 3) (3)

4.3.2 FOUR guidelines for cleanliness and hygiene in the abattoir

- Workers must apply good hygienic practices all times ✓
 - Control of flies ✓
 - The carcass must be inspected for diseases ✓
 - Footbaths ✓
 - Regularly cleaning and sterilizing of working station ✓
- (Any 4) (4)

4.3.3 THREE methods of value adding to meat

- Salting of meat ✓
 - Drying of meat in short periods ✓
 - Smoking of meat in a closed environment ✓
 - Packaging of meat into different cuts ✓
- (Any 3) (3)

4.4 Processing**4.4.1 Extrusion conversion**

- Is a cooking process ✓
 - That takes place under high temperature ✓
 - And high pressure ✓
 - That leaves no waste ✓
- (Any 2) (2)

4.4.2 **Comparison of primary conversion and secondary conversion**

PRIMARY CONVERSION	SECONDARY CONVERSION
Freshly squeezed fruit juice ✓	Bread ✓
Loose tea leaves ✓	Butter ✓
Sunflower oil ✓	Fruit cake ✓

(6)

4.5 **Packaging**4.5.1 **FOUR advantages of food packaging**

- To protect against contamination (microbes, dirt, insects, odours) ✓
- Protect against light ✓
- To facilitate the easy handling of food ✓
- To convey information ✓
- To identify the product ✓

(Any 4) (4)

4.5.2 **FOUR properties of plastic packaging material**

- Hygienic ✓
- Non-toxic ✓
- Transparent ✓
- Lightweight ✓
- Tamperproof ✓
- Adjustable with food ✓
- Protection from light ✓
- Easy to print or to label ✓
- Easily opened and closed ✓
- Impervious to gases and odours ✓
- Resistant against mechanical damage ✓

(Any 4) (4)

4.5.3 **Negative effect of plastic**

- Plastic is non-biodegradable ✓
- Because it has a petroleum base that pollutes the environment for many years after it has been discarded ✓

(2)

4.5.4 **Solution to plastic pollution**

- Use biodegradable products ✓
- Use recycled products ✓

(Any 1) (1)

4.6 **Agritourism**4.6.1 **TWO types of tourism**

- Eco- tourism ✓
- Rural tourism ✓

(2)

4.6.2 FOUR items of capital investment of/on a game farm

- Suitable land ✓
- Suitable animals ✓
- Fencing of land ✓
- Accommodation of visitors ✓
- Slaughtering facilities ✓

(Any 4) (4)

4.6.3 FOUR marketing skills in agritourism

- How to be service orientated ✓
- Knowledge of entrepreneurship ✓
- Compilation of feasibility studies and business plan a package that makes the farm different from other farms ✓
- Financial management en financial planning ✓
- Expertise on cash flow planning and control ✓
- Communication skills ✓

(Any 4) (4)
[50]**TOTAL SECTION B: 150**
GRAND TOTAL: 200