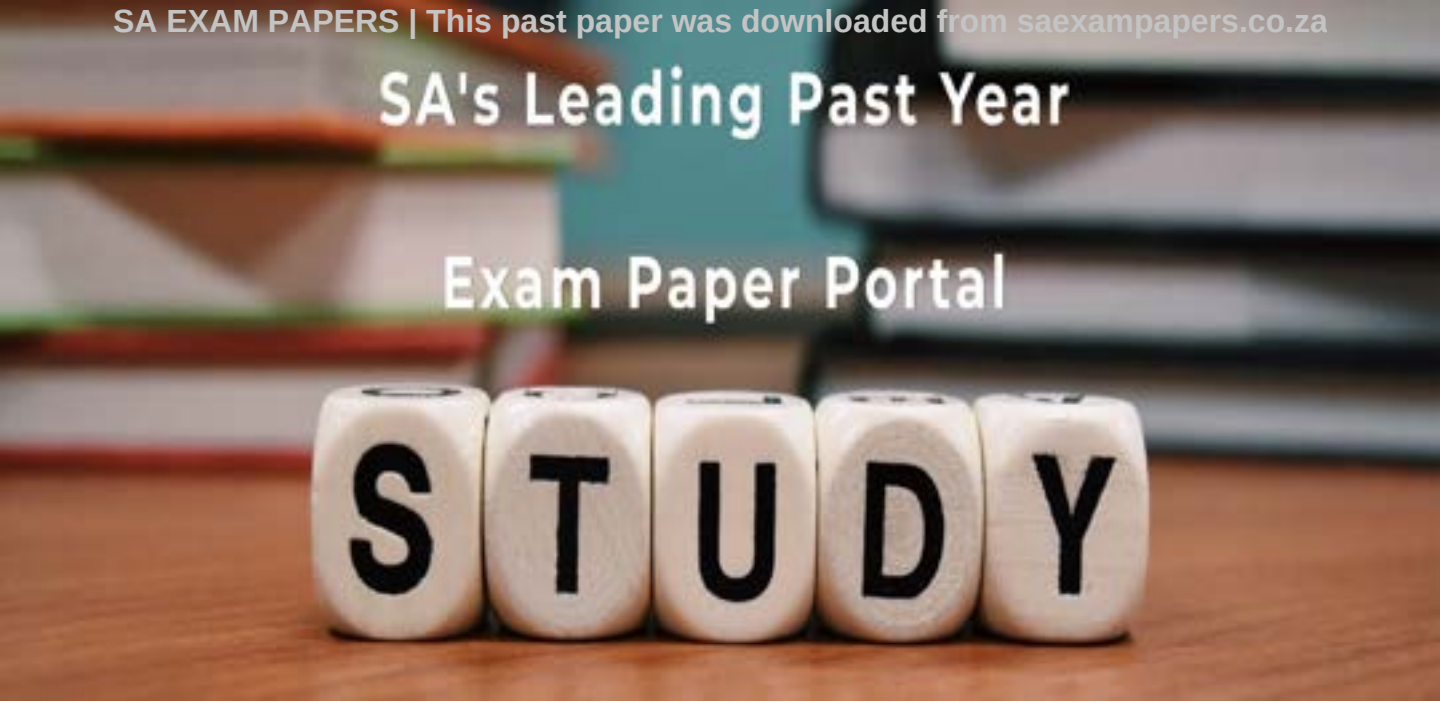


basic education

Department:
Basic Education
REPUBLIC OF SOUTH AFRICA

NATIONAL SENIOR CERTIFICATE

GRADE 12

AGRICULTURAL MANAGEMENT PRACTICES

NOVEMBER 2024

MARKING GUIDELINES

MARKS: 200

These marking guidelines consist of 15 pages.

SECTION A

QUESTION 1

1.1 Multiple-choice Questions

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

1.2 Matching Items

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

1.3 Agricultural Terms

1.3.1	Rainfall / Rain ✓		
1.3.2	Soil survey / Soil evaluation ✓		
1.3.3	Farm gate marketing ✓		
1.3.4	Store / Storage / Storing ✓		
1.3.5	Income statement ✓	(5 x 1)	(5)

1.4 Underlined Words

1.4.1	Mulching ✓		
1.4.2	Price ✓		
1.4.3	Coordination ✓		
1.4.4	Fermentation / yeast / bacterial cultures ✓		
1.4.5	Date ✓	(5 x 1)	(5)

TOTAL SECTION A: 50

SECTION B

QUESTION 2: PHYSICAL FARM PLANNING

2.1 Topography and slope

2.1.1 Describe slope and its usefulness

- It is a moderately steep slope ✓ – with limited use for cropping enterprises ✓
- It is a moderately steep slope ✓ – cultivated pastures and forestry ✓

(Any 1 x 2) (2)

2.1.2 State TWO measures to improve area for crop production

- Create contour ridges / banks ✓
- Terracing ✓
- Strip cropping ✓
- Plant against the slope ✓

(Any 2) (2)

2.2 Soil health and soil structure properties

2.2.1 State TWO farming practices to improve soil health

- Mulching ✓
- Crop rotation ✓
- Addition of organic matter ✓
- Correct cultivation methods ✓
- No use of chemicals ✓

(Any 2) (2)

2.2.2 Describe properties of a single grain structured soil

- Is usually loose ✓
- Low in nutrients ✓
- Poor water holding capacity ✓
- High water infiltration ✓
- Good aeration ✓

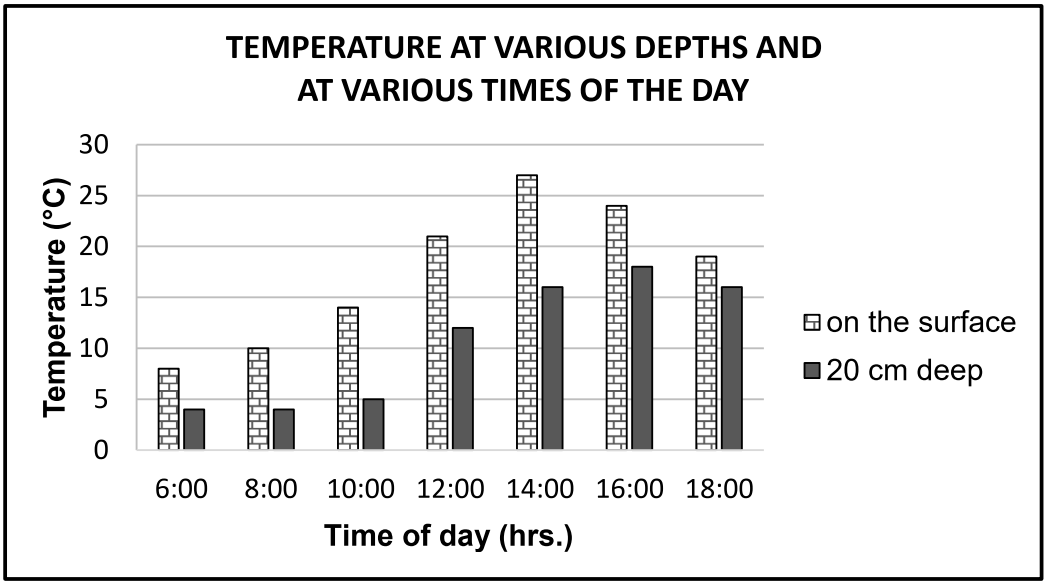
(Any 2) (2)

2.2.3 Explain the effect of a block-like structure on tillability

- Is difficult to till ✓ because the soil particles are tightly packed together ✓ (2)

2.3 **Soil temperature**

2.3.1 **Draw double bar graph on soil temperature readings**



Rubric
- Correct heading ✓
- Correct type of graph (Double bar graph) ✓
- All surface bars correct and key ✓
- All 20 cm deep bars correct and key ✓ (4)

2.3.2 **Briefly describe the trend of temperature on the soil surface**
- Temperature variation is high ✓
- Starts low, become warmer and then cool down again ✓
- Temperature increases up to 14:00 and then decrease again ✓ (Any 1) (1)

2.3.3 **Sate TWO ways to reduce the temperature variations**
- Mulching ✓
- Shading ✓
- Irrigation ✓ (Any 2) (2)

2.3.4 **Deduce the optimum time range for plant growth**
- 11:00 – 18:00 ✓✓ (Any range within the range) (2)

2.4 **Human resources and influence on productivity**

2.4.1 **Evaluate the action taken with regard to worker**
- The action to remove the worker was correct ✓ (1)

Justification
- Health practitioner must first assess the health of the worker ✓
- It is possible to transfer diseases through food ✓
- Disease can spread to other workers ✓ (Any 1) (1)

2.4.2 **Name contagious disease**
- Tuberculosis / TB ✓
- Flue ✓
- COVID ✓ (Any 1) (1)

2.4.3 **Decision and reason on worker with an HIV-positive status**
- No ✓ (1)

Reason
- HIV cannot be transmitted through food from one person to another ✓
- The process used in processing gets rid of any biological contamination✓

(Any 1 reason) (1)

2.5 **Name important factors a bank considers to offer credit**
- Ability to pay back the loan / is the applicant solvent ✓
- Collateral made available by the applicant ✓
- The applicant's credibility / credit score ✓
- The type of investment credit is needed for ✓
- Risk related to the investment by the farmer ✓ (Any 2) (2)

2.6 **Vegetation for grazing**

2.6.1 **Calculation of the feed available**
- Feed lost = (feed produced x lost grazing factor)
  = (4 200 kg x 0,4)
  = 1 680 kg ✓

  Feed available = feed produced – feed lost
  = 4 200 kg – 1 680 kg *(CA)* ✓
  = 2 520 kg ✓

OR
- Feed available = feed produced – (feed produced x lost grazing factor)
  = 4 200 kg – ✓ (4 200 kg x 0,4) ✓
  = 4 200 kg – 1680 kg
  = 2 520 kg ✓

OR
- Feed available = feed produced x available grazing factor
  = 4 200 kg x 0,6 ✓✓
  = 2 520 kg ✓ (3)

2.6.2 **Calculation of the number of cattle**
- Number of animals = feed available ÷ feed requirements
  = 2 520 kg *(CA)* ÷ 10,55 kg/animal/day ✓
  = 238,86
  = 238 ✓✓ cattle/day (3)

2.7 **Soil degradation**

2.7.1 **Give other examples of soil degradation**

- A – soil erosion / soil crusting / soil compaction ✓
- B – acidification / nutrient imbalance / available nutrient loss ✓
- C – reduction in micro-organisms / loss of carbon / pollution by natural waste products / overgrowth of micro-organisms ✓ (3)

2.7.2 **Name TWO agricultural practices that cause soil degradation**

- Use of heavy machinery ✓
- Overuse of chemical substances ✓
- Overgrazing ✓
- Monoculture ✓
- Poor cultivation practices ✓
- Over irrigation ✓
- Continuous cultivation at the same depth ✓ (Any 2) (2)

2.7.3 **Recommend TWO control measures for surface water run-off**

- Mulching ✓
- Cover crops ✓
- Contour ploughing ✓
- Terracing ✓
- Zero cultivation ✓
- Contour ridges / walls ✓
- Use controlled irrigation ✓ (Any 2) (2)

2.8 **Precision farming**

2.8.1 **Identify intensive production method**

- Precision farming ✓ (1)

2.8.2 **Identify technological equipment used when planting crops**

- Global positioning system (GPS) ✓
- Geographical information system (GIS) ✓ (2)

2.8.3 **Discuss TWO factors that determine the type of technology**

- The income potential of the farming enterprise ✓ – higher income farms can afford to purchase expensive technology ✓
- Nature of the farming method / type of crop ✓ – intensive or high input systems require more advanced technology ✓
- Scale of the farming system ✓ – large scale farming systems require more machinery and technology ✓
- The topography of the farm ✓ – technology should suite the area being cultivated ✓ (Any 2 x 2) (4)

2.9 **Agritourism marketing and contribution**

2.9.1 **State TWO ways in which to market agritourism**

- Advertise on different printed media ✓
- Promotions ✓
- Tour agents ✓
- Advertise on different electronic media platforms ✓
- Radio / TV adverts ✓
- Billboards ✓ (Any 2) (2)

2.9.2 **Indicate agritourism contribution to the value of the farm enterprise**

- Improvements in facilities and infrastructure ✓
- Increased income ✓
- Diversification reduces risk ✓
- Increase marketing value of the land ✓ (Any 2) (2)

[50]

QUESTION 3: BUSINESS PLANNING, ENTREPRENEURSHIP, MARKETING, PRICE DETERMINATION AND THE MANAGEMENT PROCESS

3.1 Business plan

3.1.1 Name mission statement

- Short-term goals ✓ (1)

3.1.2 Name vision statement

- Long-term goals ✓ (1)

3.1.3 Discuss reasons for developing a business plan

Business plan:

- Tests feasibility ✓ of the business idea ✓
- Test the viability ✓ of the business idea ✓
- Determining financial needs ✓ by compiling budgets ✓
- Application for capital ✓ from financial institutions ✓
- Determining daily activities ✓ as part of the production plan ✓
- Position of the business – current – future ✓ and how to get there ✓
- Gain knowledge of marketing ✓ that is relevant to the enterprise ✓

(Any 2 x 2) (4)

3.2 State the aspects for market research

- Marketing dynamics, patterns and seasonality ✓
- Customers – demographics ✓
- Market segments ✓
- Target markets ✓
- Consumer needs / preferences / decisions ✓
- Similar products – or competition in the market ✓
- Current sales in the industry ✓
- Benchmarks in the industry ✓
- Reliable suppliers ✓ (Any 3) (3)

3.3 **Scenario – Moringa Trees**

3.3.1 **Identify the characteristics of an entrepreneur from the <u>scenario</u>**

- Wants to start own business ✓
- Visionary / creative ✓
- Able to recognise business opportunity ✓
- Investigative skills ✓
- Introduces new / unique products ✓
- Prepared to take risks ✓ (Any 3) (3)

3.3.2 **Motivate the reason for value adding opportunity**

- "can be cooked or crushed" ✓
- "can be stored as dried powder for several months without loss of nutritional value" ✓ (Any 1) (1)

3.3.3 **Indicate diversification or specialisation**

- Diversification ✓ (1)

Motivate

- The farmer, farms with grain and plants Moringa trees, which means the farmer is diversifying. ✓
- The farmer, farms with two different crops ✓ (Any 1 motivation) (1)

3.4 **State THREE advantages of product specialisation**

- Less expenses in purchasing of other implements ✓
- Uncomplicated management ✓
- Fixed markets ✓
- Increase productivity ✓ (Any 3) (3)

3.5 **Name FOUR management principles**

- Planning ✓
- Organisation ✓
- Motivation / Leadership ✓
- Coordination ✓
- Control ✓ (Any 4) (4)

3.6 **Give advantages of belonging to product organisations**

Product organisations:

- Negotiates credit terms with banks on behalf of farmers ✓
- Organises input and negotiates discount on behalf of farmers ✓
- Organises markets for farmers ✓
- Provides technical / scientific advice to farmers ✓
- Provides market information ✓
- Advertises and promotes agricultural products ✓ (Any 3) (3)

3.7 **Supply and demand**

3.7.1 **Determine the equilibrium price**

- R80 ✓/kg ✓

OR

- Eighty rand ✓ per kilogram ✓ (✓ for monetary value and ✓ for unit) (2)

3.7.2 **Explain the importance of the equilibrium price**

- At equilibrium price what the buyers want to pay is exactly the same price the seller is prepared to accept, ✓ that makes the price sustainable ✓
- This is the only sustainable price ✓ where supply is equal to demand ✓
- This price is sustainable, ✓ because the number that consumers want to buy is equal to the number provided by producers ✓
- At this price there will be no surplus ✓ or shortage ✓ of the product on the market (Any 1 x 2) (2)

3.7.3 **Briefly explain shortage of product**

- Consumers buy more when price is low ✓
- Farmers supply / market less of a product when price is low ✓
- Political instability / political factors can prevent marketing ✓
- Natural disasters / hail / floods / drought can destroy produce ✓
- Seasonal yields lead to shortages in other seasons ✓
- Logistical / transport / import problems can cause delays in marketing ✓

(Any 2) (2)

3.7.4 **Suggest solutions for the prevention of shortages in agricultural products**

- Modify planting or harvesting times, ✓ to supply sufficient products during periods of short supply ✓
- Increase inputs ✓ to obtain more product ✓
- Planting in different regions ✓ to have different harvesting times ✓
- Plant different cultivars ✓ that produce higher yields ✓
- Make use of greenhouses ✓ to produce more products throughout the year ✓ (Any 1 x 2) (2)

3.8 **Choose a word from the word list for marketing chain**

3.8.1 product ✓ (1)
3.8.2 consumer ✓ (1)
3.8.3 higher ✓ (1)
3.8.4 competitors ✓ (1)
3.8.5 profit ✓ (1)

3.9 **Marketing at an auction**

3.9.1 **Explain choosing auction instead of internet marketing**

- The farmer can see the real live animal ✓ as opposed to pictures only ✓
- The farmer can see the animal in action ✓ - walking around, getting an idea of its temperament, etc. ✓
- This animal can be compared to other animals on auction ✓ and the farmer can make the best purchase ✓
- Pictures on the internet ✓ may be electronically modified ✓
- The financial transaction is safe, ✓ the farmer gets the animal paid for ✓

(Any 2 x 2) (4)

3.9.2 **Calculate money received from selling price**

- Money received = Selling price – (Selling price x Auction fee %)
  = R50 000,00 – ✓ (R50 000,00 x 5% ✓) ✓
  = R50 000,00 – (R2 500,00)
  = R47 500,00 ✓

OR

- Auction costs = Selling price x Auction fee
  = R50 000,00 x 5% ✓
  = R2 500,00 ✓

  Money received = Selling price – Auction costs
  = R50 000,00 – ✓ R2 500,00 *(CA)*
  = R47 500,00 ✓

OR

- Money received = Selling price x auction % received
  = R50 000,00 x ✓ 95% ✓ ✓
  = R47 500,00 ✓ (4)

3.10 **Health and Safety Act**

3.10.1 **Name the Act**
- Occupational Health and Safety Act ✓ (1)

3.10.2 **State seasonal or occasional worker and motivate**
- Seasonal worker ✓
- Seasonal worker only works for the pre-harvesting period each season/year ✓

OR

- Occasional worker ✓
- An occasional worker starts a specific project on the farm, finishes it and does not return seasonally or yearly ✓

(can only be ONE choice) (2)

3.10.3 **State ONE improvement for protective clothing**
- Overall to protect personal clothing instead of an apron ✓
- Ear plugs can also be given ✓
- Full face mask/shield to protect the skin on the face rather than just goggles for the eyes ✓
- Respirator to clear the air rather than just a mask ✓
- Boots rather than shoes ✓ (Any 1) (1)

[50]

QUESTION 4: FINANCIAL PLANNING, RECORDING, HARVESTING, VALUE ADDING, AND PACKAGING

4.1 Budgets

4.1.1 Describe *whole farm budget*
- Summary of all the different branches / sections ✓
- of the farming enterprise as a whole ✓ (2)

4.1.2 Name important aspects of inputs
- Type of input ✓
- Number/quantity of input needed ✓
- Price of the input ✓
- Time that the input is needed ✓ (Any 3) (3)

4.2 Financial planning

4.2.1 Explain gross profit
- Gross profit is sales(revenue) minus cost of sales ✓✓
- Gross profit is turnover minus direct costs ✓✓
- Gross profit is the selling price of your product minus the cost in producing the product ✓✓ (Any 1 x 2) (2)

4.2.2 Explain net profit
- Net profit is gross profit minus indirect costs ✓✓
- Money left after all expenses are deducted ✓✓ (Any 1 x 2) (2)

4.3 Statements

4.3.1 Name type of statement
- Balance sheet ✓ (1)

4.3.2 Calculate values

(a) R3 062 000,00 ✓
(b) R2 712 000,00 ✓
(c) R350 000,00 ✓ *(CA)*
(d) R3 062 000,00 ✓ (4)

4.3.3 Evaluate growing potential
- Business is growing ✓ (1)

Reason
- Net worth increases ✓
- Assets are more than the liabilities ✓
- Owners' equity will grow ✓
- Capital in the bank will grow ✓ (Any 2) (2)

4.3.4 **Give a reason for *no farm value***
- The person is renting the farm ✓✓
- The person is not owning the farm ✓✓ (Any 1 x 2) (2)

4.4 **Describe type of mechanical records**
- Date of service / date when repair was done / frequency of repairs ✓
- Cost of maintenance / service ✓
- Fuel usage for each trip ✓
- Logbook to indicate distance ✓
- Yearly depreciation of the vehicle ✓ (Any 4) (4)

4.5 **Name the source documents for livestock farmer**
- Invoices ✓
- Receipt ✓
- Bank statements ✓
- Diary ✓
- Debit notes ✓
- Credit notes ✓
- Cheques ✓
- Electronic funds transfer (EFT) notice ✓
- Deposit slips ✓
- Inventory ✓ (Any 4) (4)

4.6 **Indicate safety measure for electronic payments**
- Use validated websites ✓
- Use a unique personal identification number (PIN) ✓
- Use your personal biometrics / features for recognition ✓
- Use a Username that corresponds with the password ✓
- Use a Password according to stipulated guidelines ✓
- Install antivirus and phishing program ✓
- Report any suspicious transactions on your account ✓
- Logoff after doing transactions ✓ (Any 4) (4)

4.7 **Name aspects when grading animal raw products**
- Mass / Size ✓
- Fat content ✓
- Length ✓
- Appearance – fineness / crimp / colour / shape / staple formation / bruising ✓
- Age ✓
- Quality - clean yield / tenderness / tensile strength ✓ (Any 4) (4)

4.8 **Discuss the disadvantages of processing**

- Difficult to obtain capital ✓ for new industry or expansion ✓
- New products must compete ✓ with established products ✓
- Knowledge and expertise ✓of farmer not adequate ✓
- Add more management work for the farmer ✓ due to new developments ✓
- Buildings can take up areas for production ✓ thus less produce ✓
- Expensive ✓ if the farmer must obtain a loan to expand ✓
- Products may lose taste / nutrition / appearance ✓ due to processing process ✓
- Processing is time consuming, ✓ that will lead to increases in cost ✓

(Any 2 x 2) (4)

4.9 **Name the aspects that influence the shape of packaging material**

- Type of material ✓
- Purpose of the container ✓
- Type / shape / size of product ✓
- Cost implications ✓
- Equipment needed ✓
- Is the packaging custom made ✓
- or form at packaging line ✓ (Any 3) (3)

4.10 **Give the reasons for labelling products**

- Identifying product ✓
- Contain specific information ✓
- To get consumer confidence in the product ✓
- To inform the consumer / allergies ✓
- To attract attention to the product ✓
- To assist stock keeping ✓
- Legal requirements ✓
- Identifying company / traceability ✓ (Any 4) (4)

4.11 **Describe the advantages of *good agricultural practices***

- Financial benefit to producer ✓
- Consumer gets a quality product ✓
- Possible spread of pests and diseases is eliminated ✓
- Chemical pollution is eliminated ✓
- Possible allergies are avoided ✓
- Products causing diseases are limited ✓
- Cost of handling bad products is limited ✓ (Any 4) (4)

[50]

TOTAL SECTION B: 150
GRAND TOTAL: 200