



# education

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Department:  
Education  
**REPUBLIC OF SOUTH AFRICA**

**NATIONAL  
SENIOR CERTIFICATE**

**GRADE 12**

**AGRICULTURAL MANAGEMENT PRACTICES**

**FEBRUARY/MARCH 2010**

**MEMORANDUM**

**MARKS: 200**

**This memorandum consists of 9 pages.**

**SECTION A****QUESTION 1.1**

1.1.1	A	X	C	D	√√
1.1.2	A	B	X	D	√√
1.1.3	A	B	X	D	√√
1.1.4	A	X	C	D	√√
1.1.5	A	B	X	D	√√
1.1.6	A	B	X	D	√√
1.1.7	X	B	C	D	√√
1.1.8	A	B	C	X	√√
1.1.9	A	B	X	D	√√
1.1.10	A	B	C	X	√√

(10 x 2) (20)

**QUESTION 1.2**

1.2.1	D	√√
1.2.2	C	√√
1.2.3	A	√√
1.2.4	E	√√
1.2.5	F	√√
1.2.6	G	√√
1.2.7	H	√√
1.2.8	J	√√
1.2.9	K	√√
1.2.10	L	√√

(10 x 2) (20)

**QUESTION 1.3**

- 1.3.1 Transaction/Sales√  
 1.3.2 Income statement/profit-loss statement√  
 1.3.3 Forage crops/pastures√  
 1.3.4 Medium term /two to ten years√  
 1.3.5 Working/ Floating capital√  
 1.3.6 Mechanization√  
 1.3.7 Motivation/leadership√  
 1.3.8 Indigenous knowledge√  
 1.3.9 Supply√  
 1.3.10 Scale/counter/ screener√

(10 x 1) (10)

**TOTAL SECTION A: 50**

**SECTION B****QUESTION 2****2.1 “ Go Green”**

- 2.1.1 Organic farming/Biological farming/Conservation farming ✓ (1)
- 2.1.2 Practices must adhere to regulations of organic farming ✓  
Relies on crop rotation ✓  
Recycling of farm produced organic material ✓  
No chemical pesticides, insecticides, herbicides applied to control to diseases ✓  
Use of organic fertilisers ✓  
Method of genetically engineering is prohibited ✓ (5)  
Chemical growth regulators and feed additives are prohibited ✓ (Any 5)
- 2.1.3 If not proper managed then the quality will decrease ✓  
Convey diseases/weeds/pests ✓  
Availability of pesticides/insecticides/herbicides is limited ✓  
It is more expensive type of farming ✓ (Any 2) (2)  
[8]

**2.2 Soil Erosion**

- 2.2.1 soil erosion is removing of soil ✓  
through the action of wind/water ✓  
to an area that it is not wanted/unproductive/less fertile ✓  
erosion remove topsoil first ✓  
without nutrients, few plants will grow ✓ (5)
- 2.2.2 Slope ✓ / Steep slopes  
Areas with little or no vegetation ✓  
Incorrect land use ✓  
Intensity of rainfall/thunderstorms/draught ✓ (4)  
[9]

**2.3 Soil survey**

- 2.3.1 Determine the exact agricultural value of the soil. ✓  
Use the soil according to its potential/value. ✓ (2)
- 2.3.2 Aerial photographs of the region. ✓  
Soil map of the area. ✓  
Replanning document or map. ✓  
Soil utilization report. ✓  
Overlay to indicate the potential of soils. ✓  
Pasture utilization report ✓  
Crop recommendations. ✓ (Any 6) (6)  
[8]

**2.4 Precision Farming**

- Water stress ✓ - sensors that measure soil moisture/mobile weather stations ✓
- Weed management ✓ - use of machine vision technology to spray only where the weeds are present ✓
- Insect detection ✓ - field scouting is the best way to detect infestation. ✓
- Nutrient stress ✓ - use high resolution colour infrared aerial images/leaf samples ✓
- Irrigation scheduling ✓ - simulation technology/ satellite ✓
- Harvesting quantities ✓ - measurements in technological advanced harvester ✓
- Soil preparation ✓ - difference between soils- satellite ✓ (Any 4) (8)

**2.5 Possible utilization enterprises**

- 2.5.1 Shallow, rocky soil ✓  
Soils with low potential that cannot afford high inputs ✓ (2)
- 2.5.2 Field crops ✓  
where the good potential soil can be used for a cash crops, where high inputs is sometimes needed/invested into the soil ✓ (2)
- 2.5.3 Marginal soil is not economically viable on the long term and will not justify high inputs ✓  
Planted pasture has a low input and need little inputs over a long period ✓ (2)
- 2.5.4 One or other animal production enterprise, such as cattle or sheep ✓  
Diversification/ Planted pastures and natural grazing is available ✓ (2)  
[8]

**2.6 Labour management**

- 2.6.1 Control ✓
- 2.6.2 Organisation/mechanisation ✓
- 2.6.3 Planning/organisation ✓
- 2.6.4 Leadership/ motivation ✓
- 2.6.5 Organisation/ coordination ✓ (5)

**2.7 Farm machinery**

- Own equipment versus using a contractor ✓
- Funds available for equipment ✓
- Functionality of equipment ✓
- Technological advancement ✓
- Running efficiency ✓
- Mechanisation needs on the farm ✓
- Lifespan of the equipment ✓
- Basic maintenance costs ✓ (Any 4) (4)

**[50]**

**QUESTION 3: RECORDING, FINANCIAL STATEMENTS AND ENTREPRENEURSHIP**

**3.1 Animal stock sheet**

- A- 75✓
- B- 0✓
- C- 20✓
- D- 70✓
- E- 94✓
- F- 110✓
- G- 0✓
- H- 258✓
- I - 664✓✓

(10)

**3.2 Types of capital**

TYPE	SOURCE	USE	PERIOD	TERMS OF PAYING THE LOAN/SECURITY
<b>LONG</b>	3.2.1 land bank ✓ commercial banks e.g. ABSA, FNB, Nedbank, Standard bank etc ✓ (Any 1)		3.2.2 10-35 yrs ✓	3.2.3 Mortgage ✓
<b>MEDIUM</b>	3.2.4 land bank ✓ commercial banks ✓ (Any 1)	3.2.5 machinery, livestock for breeding, equipment etc. ✓		3.2.6 higher purchase and instalments ✓
<b>SHORT</b>	3.2.7 commercial banks ✓ or personal bank account ✓	3.2.8 -to buy perishable items e.g. seeds, fertilizers, fuel ✓	3.2.9 1 season or 1yr ✓	3.2.10 instalments after selling the produce ✓

(10)

**3.3 Depreciation**

3.3.1 =  $\frac{800\ 000 - 80\ 000}{10} = \frac{720\ 000}{10} \checkmark = \frac{R72\ 000}{10} \checkmark \checkmark$

(3)

3.3.2 because it is a liability/cost to a farmer ✓  
and it can be used for tax reduction purposes ✓

(2)

[5]

**3.4 Jappie's Business**

- 3.4.1 Somebody who:
- Sees a unique business opportunity ✓
  - Is willing to take a risk ✓
  - To make it a reality ✓
- (3)
- 3.4.2 Saw a unique opportunity ( selling egg yolk to cellars) ✓  
Took the risks ( bought 100 hens with little starting capital) ✓  
Successfully expanded the operation (expanded) ✓
- (3)
- 3.4.3 Chicken manure ✓  
old layers for slaughtering ✓  
egg shells ✓  
Dry yolk as powder as protein source ✓
- (Any 3) (3)  
[9]

**3.5 Methods of communication**

- 3.5 Verbal- language ✓  
Telephone ✓  
Fax ✓  
E-mail – electronically ✓  
Cellphone –SMS ✓  
2 way radios ✓  
Letters/ circulars ✓
- (Any 3) (3)

**3.6 SEDA**

- 3.6.1 Empowerment ✓  
and training of emerging farmers ✓
- (2)
- 3.6.2
- Operational skills ✓
  - Human relation skills ✓
  - Technical skills ✓
  - Business skills ✓
  - Entrepreneurial skills ✓
  - Management skills ✓
- (Any 3) (3)  
[5]

**3.7 Farm management**

- 3.7.1 Farm management encourage and make provision that workers are constantly trained and developed✓  
in order to keep up with the changing environment in which the farm business functions✓  
The demand is to become more productive and keep up with technological advancements ✓ (Any 2) (2)
- 3.7.2
- done for promotion✓
  - pay increase ✓
  - and to determine and address work deficiencies. ✓
  - measure productivity/ effectiveness✓
  - career opportunities (promotion) ✓
  - use workers in their most suited positions where their interest lies✓
  - motivation for workers✓ (Any 2) (2)
- 3.8 **Business plan**  
evaluate your business on a regular basis✓  
monitor and evaluate your actual income and expenses as opposed to your forecasts✓  
make future decisions✓  
help the business to obtain credit from new suppliers✓  
help the business to recruit new staff✓  
keep you on track to achieve your goals and objectives✓  
help you when approaching local authorities and government institutions for permission and assistance. ✓ (Any 4) (4)
- [50]

**QUESTION 4: HARVESTING, VALUE ADDING, MARKETING, AGRITOURISM AND INDUSTRY****4.1 Impact of HIV/AIDS**

- a decline in total labour supply ✓
- a decline in labour productivity resulting from HIV/Aids morbidity ✓
- increased production costs, decline in savings and investment ✓
- lost of special skills ✓
- smaller market for produce ✓
- longer sick leave (financial impact) ✓ (Any 4) (4)

**4.2 Advantages of producer groups**

- to address a range of constraints on agricultural production and marketing✓
- provide better access to sources of production equipment, supplies and technology ✓
- promotion/ advancement of agricultural products ✓
- Assist farmers in obtaining financing for production ✓
- Research in aspects that would enhance production ✓
- Bargain for better prices on behalf of the farmers ✓ (Any 5) (5)

**4.3 Climate change**

- 4.3.1 Drought ✓  
Flooding ✓ (2)
- 4.3.2 Causes for the increase in insurance costs revolve around the fact that there is more risks, unreliable production output, difficult to budget ✓  
Unexpected disaster which lead to the loss of a crop ✓/livestock (2)
- 4.3.3 Built ridges to prevent flooding ✓  
Lower plant density and fertilizer in drought years ✓  
Lower stocking rates/ mineral supplements ✓ ( Any 2) (2)

[6]

**4.4 Product life cycle**

- 4.4.1 According to the graph there are no sales ✓  
This is the period in which the market is analysed and product and market strategy are developed ✓ (2)
- 4.4.2 According to the graph there is a introduction phase ✓  
sales are still low ✓ (2)
- 4.4.3 According to the graph sales gain momentum ✓  
and prices tend to hold steady ✓ (2)
- 4.4.4 According to the graph sales are reaching a plato ✓  
or even slight decline as the market becomes saturated ✓ (2)
- 4.4.5 According to the graph sales decline rapidly ✓  
there might be a substitute product or new consumer preferences ✓ (2)

[10]

**4.5 Dali's farm stall**

- 4.5.1 Dali would know the names and personalities of the regular customers ✓  
She knows that they are buying into her company and that they are close to her companies' well-being. ✓  
For the undecided customer she needs a bit more patience ✓  
by guiding them because the often do not know what they want ✓  
and need to know the advantages and disadvantages of buying certain products ✓ (5)
- 4.5.2 Dali made effort to supply to her customers needs, and she was always friendly and helpful ✓ (2)

[7]



**4.6 Agritourism**

4.6.1 A practice of attracting visitors ✓  
to an area used primarily for agricultural purposes ✓ (2)

4.6.2 Increases the potential for higher profits ✓  
Diversify the product line of the farm operation ✓  
Operators increase income through a variety of service initiatives ✓  
Increase the on-farm sales of value adding products and services ✓  
Increase income per farm ✓ (5)  
[7]

**4.7 Food industry**

Regular inspections by officials to ensure the cleanliness and standard of products supplied/Setting of health standards for the food industry ✓  
An indication of the content of the product ✓  
An expiry date indicated on the packaging ✓  
Safe and hygienic practices during the processing of the products ✓  
Inclusion of preservation practices/ cooling etc. ✓  
Prosecution of companies that does not adhere to the regulations ✓ (Any 5) (5)

**4.8 Food processing**

4.8.1 Taking a raw material and processing it or adding something ✓  
to it to change it into a more saleable item that will be purchased by a different group of customers ✓ (2)

4.8.2 Increase the potential and value for a product ✓  
Less weight thus easier to transport to the markets ✓  
Protection against organisms that causes product decay ✓  
Easier to package and store ✓ (4)  
[6]  
[50]

**TOTAL SECTION B: 150**

**GRAND TOTAL: 200**