



education

Department:
Education
REPUBLIC OF SOUTH AFRICA

**NATIONAL
SENIOR CERTIFICATE**

GRADE 10

AGRICULTURAL MANAGEMENT PRACTICES

EXEMPLAR PAPER

MARKS: 200

TIME: 2 hours

This question paper consists of 14 pages.

134 0 E

INSTRUCTIONS AND INFORMATION

1. Answer ALL the questions.
2. This question paper consists of TWO sections.
3. SECTION A is COMPULSORY and must be completed in the answer book provided.

SECTION B is COMPULSORY.
4. Number the answers correctly according to the numbering system used in this question paper.
5. Write neatly and legibly.

SECTION A**QUESTION 1**

Various possible options are provided as answers to the following questions. Choose the correct answer and write only the letter (A - D) next to the question number (1.1 - 1.5) in the answer book.

- 1.1 The crop that provides South Africa with staple food is ...
- A rice.
 - B maize.
 - C wheat.
 - D sorghum.
- 1.2 A managerial principle where a farmer may engage with his workers in order to improve their work performance:
- A Motivation
 - B Salary increase
 - C Promotion
 - D Leadership
- 1.3 To alleviate poverty in households in rural areas, a headman may practise the following farming system:
- A Commercial farming
 - B Subsistence farming
 - C Extensive farming
 - D Intensive farming
- 1.4 The following will play a role in adding value of fruit for the farmer:
- A Drying of fruit by the farmer
 - B Selling
 - C Drying of fruit by a second party
 - D Correct cultivation practices
- 1.5 Which ONE of the following regions in South Africa is well-known for its wine farming?
- A KwaZulu-Natal
 - B Eastern Cape
 - C Gauteng
 - D Western Cape
- (5 x 2) [10]**

QUESTION 2

Carefully read through the following statements and indicate whether they are TRUE or FALSE. Write only 'T' or 'F' next to the question number in the answer book.

- 2.1 Agricultural soil consists of 80% sand fraction.
- 2.2 The ideal optimum temperature for most crops is between 20 °C - 30 °C.
- 2.3 Frost can cause damage to crop production.
- 2.4 The loss of water through the leaves of plants is called evaporation.
- 2.5 Soil structure refers to the size of soil particles.
- 2.6 One of the biggest problems in soil conservation in South Africa is wind erosion in high rainfall areas.
- 2.7 A typical implement to use if a plough-layer occurs is a rotavator.
- 2.8 The most effective way to utilise irrigation water is to use micro irrigation.
- 2.9 Wastewater from a dairy is an example of inorganic fertiliser.
- 2.10 One of the most common problems with a natural resource, like water, is pollution.

[10]**QUESTION 3**

Choose a description from COLUMN B that matches a term in COLUMN A. Write only the question number (3.1 - 3.5) and the letter (A - G), for example 3.6 H.

COLUMN A		COLUMN B	
3.1	Weed killers	A.	increase soil fertility
3.2	Disease	B.	mechanical weed controlled
3.3	Crop rotation	C.	clean cultivation
3.4	Plant protection	D.	intercropping
3.5	Tine implement	E.	bacterial
		F.	selective
		G.	government

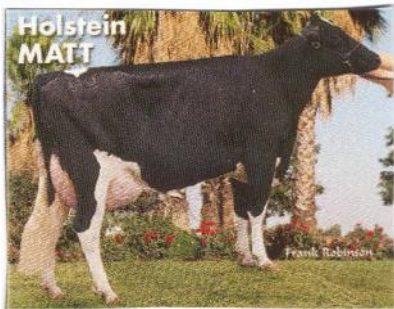
(5 x 2)**[10]**

QUESTION 4

Answer the following questions:

- 4.1 Which ONE of the following dairy breeds is known for a high average production, but with a lower butterfat?

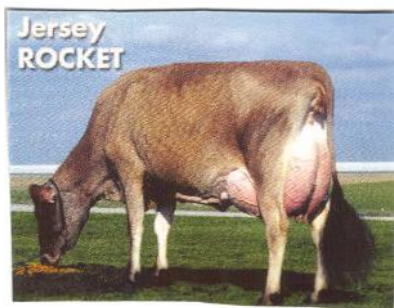
A



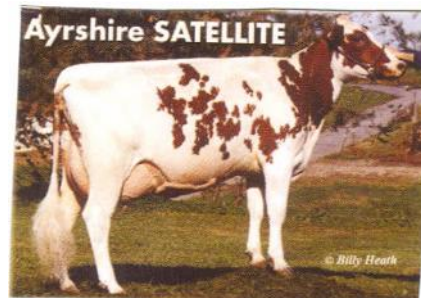
B



C



D



(1)

- 4.2 Which product is utilised from the Damara breed?

(1)



- 4.3 When a cow allows other cows to mount her, it is a sign of

(1)

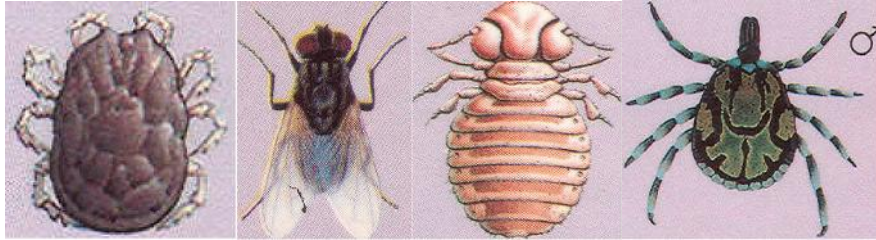
- 4.4 Which ONE of the following external parasites is very common on farm animals and causes economical damage by damaging the hide?

A

B

C

D



(1)

- 4.5 If maize is included in a ration, it is known as a ... -rich concentrate.

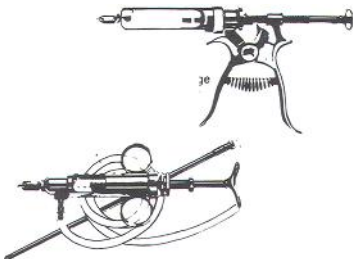
(1)

- 4.6 Name a protein-rich concentrate of marine origin that is used in rations for farm animals.

(1)

- 4.7 Study the following illustrations and explain what they are used for:

A



B



C



(3)

- 4.8 Which managerial principle is applied if a farmer gives clear instructions to his workers?

(1)

[10]**TOTAL SECTION A: 40**

SECTION B**QUESTION 5: ANIMAL MANAGEMENT ASPECTS**

5.1 Study the following apparatus and answer the questions that follow.



- 5.1.1 Name the apparatus shown above. (2)
- 5.1.2 Explain the use of this apparatus on a young bull calf. (7)
- 5.1.3 For a young bull calf, state at what age, in months, the use of this apparatus is recommended. (2)
- 5.2 Name any FIVE physical records an animal farmer should keep. (5)
- 5.3 Draw the ears of a pig and indicate on the ear how you would mark it with the number 287 by using earmarks. (5)
- 5.4 Study the parasites (A - D) below and answer the questions that follow.

A



B



C



D



- 5.4.1 Identify the parasites as shown. (4)
- 5.4.2 Give FOUR methods to control the parasite labelled A. (4)

- 5.5 Name any THREE practices a farmer can use to add value to a product like milk. (3)
- 5.6 Differentiate between *concentrates* and *roughages* in animal feed. (4)
- 5.7 State FOUR general causes of illnesses in farm animals. (4)
- [40]**

QUESTION 6: CROP MANAGEMENT ASPECTS

- 6.1 State FOUR physical properties of soil that are influenced by cultivation. (4)
- 6.2 A farmer practises crop rotation and ploughs the residues of the previous crop into the soil before he plants the new crop.
- Answer the following questions based on the statement above:
- 6.2.1 Define *crop rotation*. (2)
- 6.2.2 State FIVE advantages of crop rotation. (5)
- 6.2.3 State FOUR advantages of ploughing in the residues of a previous crop. (4)

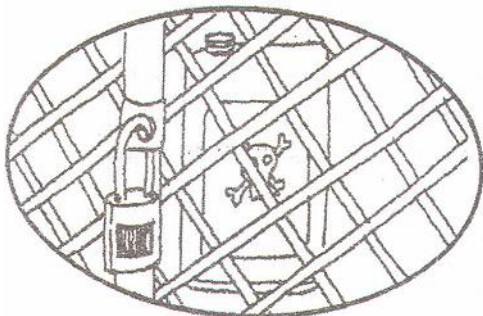
- 6.3 Study the picture of a fertiliser bag below and answer the questions that follow:



- 6.3.1 Briefly explain the meaning of the ratio 3:2:1 on the bag. (3)
- 6.3.2 What is the meaning of the number 24 in brackets? (1)
- 6.3.3 Calculate the price per ton if the bag in the picture costs R11,40. (3)
- 6.4 Answer the following questions on weeds:
- 6.4.1 Define a *weed*. (3)
- 6.4.2 Name FOUR methods a farmer can apply to control weeds. (4)
- 6.4.3 What is meant by the *residual period* of a weed killer? (2)
- 6.5 Name FOUR cultural practices a farmer can use to get rid of plant pests. (4)

6.6 Which safety measures on pesticides are indicated by the following pictures (6.6.1 - 6.6.5):

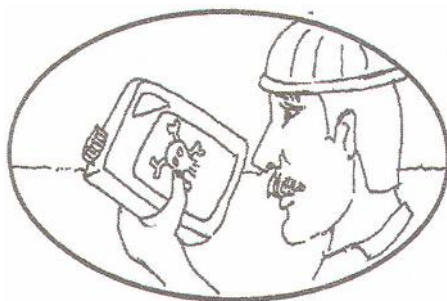
6.6.1



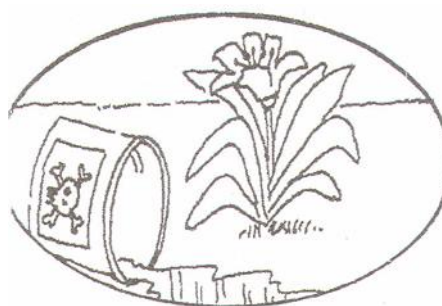
6.6.2



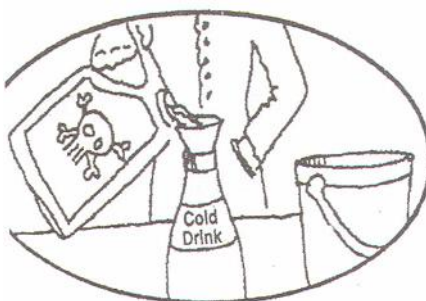
6.6.3



6.6.4



6.6.5



(5)
[40]

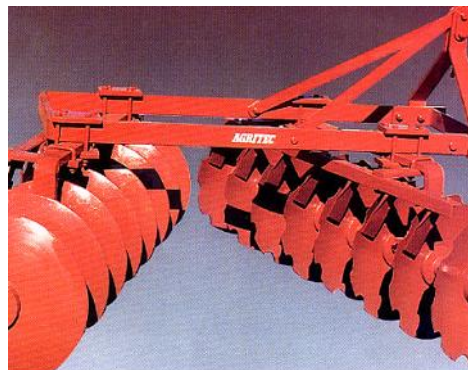
QUESTION 7: SOIL AND WATER MANAGEMENT IN CROP AND ANIMAL PRODUCTION

7.1 Study the following pictures and answer the questions that follow.

A



B



C



D



7.1.1 Which implements will be used for:

- (a) Breaking a plough-sole
 - (b) Clean cultivation
 - (c) Loosening the soil in between rows of grain
 - (d) Cutting residues into the soil
 - (e) Turning up sods up to 300 mm
- (5)

7.1.2 State the advantages and disadvantages of the implement labelled B.

(6)

7.2 Briefly explain the influence of the following climatic requirements on plant production:

7.2.1 Temperature

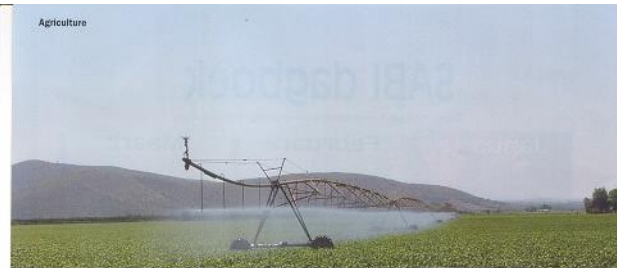
(4)

7.2.2 Rainfall

(4)

7.3 Identify the following irrigation systems (A - C) and answer the questions that follow.

A



B



C



- 7.3.1 Which ONE of the systems is the oldest method of irrigation? (1)
- 7.3.2 Which system is not recommended for use on a sandy soil? (1)
- 7.3.3 Which system will be used on a very large area? (1)
- 7.3.4 Which system is recommended for an orchard if water is very scarce? (1)
- 7.3.5 State FIVE disadvantages of system C. (5)
- 7.4 There are food safety issues that arise from the use of animal manure as fertilizer. It is important that all farmers using manure follow good agricultural practices to reduce any microbial risk. Name any SIX of these factors. (6)
- 7.5 Name SIX practices a farmer can apply to control soil erosion. (6)

[40]

QUESTION 8: INTRODUCTION TO CROP, ANIMAL AND MANAGEMENT PRACTICES

- 8.1 Health issues are very important in the agricultural industry. Briefly explain the impact of HIV/Aids on the agriculture industry in general. (4)
- 8.2 Global issues determine a trend in agricultural practices in South Africa. What do you understand by the following terms:
- 8.2.1 Organic farming (2)
- 8.2.2 Inorganic farming (2)
- 8.3 Define the following principles of management:
- 8.3.1 Motivation (3)
- 8.3.2 Control (3)
- 8.3.3 Organisation (3)
- 8.4 Name the FOUR production factors in agriculture. (4)
- 8.5 State the classification of sheep according to their production. (4)
- 8.6 Study the map below and answer the questions that follow.



- 8.6.1 Name ONE semi-dry area with extensive sheep farming. (2)
- 8.6.2 Name TWO provinces well-known for the production of citrus fruit. (4)
- 8.6.3 Name the province which consists mainly of grasslands. (2)
- 8.6.4 Name a winter rainfall area well-known for wheat farming. (2)

8.7 Name the different types of veld found in South Africa. (3)

8.8 Name any TWO planning terms in agriculture. (2)
[40]

TOTAL SECTION B: 160

GRAND TOTAL: 200