



education

Department:
Education
North West Provincial Government
REPUBLIC OF SOUTH AFRICA

PROVINCIAL ASSESSMENT

GRADE 10

**AGRICULTURAL SCIENCES
JUNE 2024
MARKING GUIDELINES**

MARKS: 100

These marking guidelines consist of 9 pages.

SECTION A**QUESTION 1**

- | | | | | |
|-----|--------|----------------------|----------|------|
| 1.1 | 1.1.1 | B ✓ | | |
| | 1.1.2 | A ✓ | | |
| | 1.1.3 | B ✓ | | |
| | 1.1.4 | B ✓ | | |
| | 1.1.5 | C ✓ | | |
| | 1.1.6 | C ✓ | | |
| | 1.1.7 | B ✓ | | |
| | 1.1.8 | A ✓ | | |
| | 1.1.9 | C ✓ | | |
| | 1.1.10 | D ✓ | (10 x 1) | (10) |
| 1.2 | 1.2.1 | Both A and B ✓ | | |
| | 1.2.2 | B only ✓ | | |
| | 1.2.3 | None ✓ | | |
| | 1.2.4 | B only ✓ | | |
| | 1.2.5 | B only ✓ | (5 x 1) | (5) |
| 1.3 | 1.3.1 | Pasture ✓ | | |
| | 1.3.2 | Agri-industry ✓ | | |
| | 1.3.3 | Animal husbandry ✓ | | |
| | 1.3.4 | The big five ✓ | | |
| | 1.3.5 | Selective grazing ✓ | (5 x 1) | (5) |
| 1.4 | 1.4.1 | Commercial farming ✓ | | |
| | 1.4.2 | Crop rotation ✓ | | |
| | 1.4.3 | Xerophytes ✓ | | |
| | 1.4.4 | Extensive ✓ | | |
| | 1.4.5 | Processing ✓ | (5 x 1) | (5) |

TOTAL SECTION A: 25

SECTION B**QUESTION 2 : AGRO-ECOLOGY**

- 2.1 2.1.1 **Classification of the components of ecosystem**
- **GROUP A** - abiotic factors ✓
 - **GROUP B** - biotic factors ✓
- (2)
- 2.1.2 **Explanation of 2.1.1.**
- **GROUP A** - abiotic factors are the non-living components of an ecosystem ✓
 - **GROUP B** - biotic factors are the living components ✓
- (2)
- 2.1.3 **Identification of climatic factor**
- Sunlight ✓
 - Temperature ✓
 - Rainfall ✓
- (Any 1 x 1) (1)
- 2.1.4 **Food chain**
Grass → Grass hopper → Snake → Eagle
- Criteria for marking the food chain**
- Food chain ✓
 - Organisms from the table ✓
 - Correct sequence of food chain ✓
 - Correct number of trophic levels ✓
- (4)
- 2.2 2.2.1 **Term that describes the interactions**
- Symbiosis ✓
- (1)
- 2.2.2 **Definition of symbiosis**
- An interaction between two organisms ✓ that live very closely together ✓
- (2)
- 2.2.3 **Identification of interactions**
A – Mutualism ✓
B – Commensalism ✓
C – Parasitism ✓
- (3)
- 2.2.4 **TWO types of interactions NOT shown in the pictures**
- Competition ✓
 - Predation ✓
- (2)

- 2.2.5 **Distinction between intraspecific competition and interspecific competition.**
- **Intraspecific competition** - occurs between organisms of the same species ✓
 - **Interspecific competition** - occurs between organisms of the different species ✓ (2)
- 2.3 2.3.1 **Identification of the biome**
- Thicket biome ✓ (1)
- 2.3.2 **THREE other biomes of South Africa**
- Grassland ✓
 - Forest ✓
 - Fynbos ✓
 - Savannah ✓
 - Nama-Karoo ✓
 - Succulent Karoo ✓ (Any 3 x 1) (3)
- 2.3.3 **TWO importance of the forest biome in agriculture**
- Timber production ✓
 - Plantation of exotic trees e.g. pine and eucalyptus ✓
 - Supports the tropical and sub-tropical fruit industry ✓ (Any 2 x 1) (2)
- [25]**

QUESTION 3: AGRI-INDUSTRY

- 3.1 3.1.1 **Classification of food depicted in the picture**
- Staple food ✓ (1)
- 3.1.2 **The reason why the food is mostly used by people**
- It is a staple food ✓
 - It is cheaper ✓ (2)
- 3.1.3 **THREE other types of food not mentioned in QUESTION 3.1.1**
- Fresh food ✓
 - Processed food ✓
 - Preserved food ✓ (3)
- 3.1.4 **THREE advantages of food processing**
- Value adding ✓
 - Longer shelf life ✓
 - Easy to market ✓
 - Easy distribution ✓
 - Increases seasonal availability ✓ (Any 3 x 1) (3)

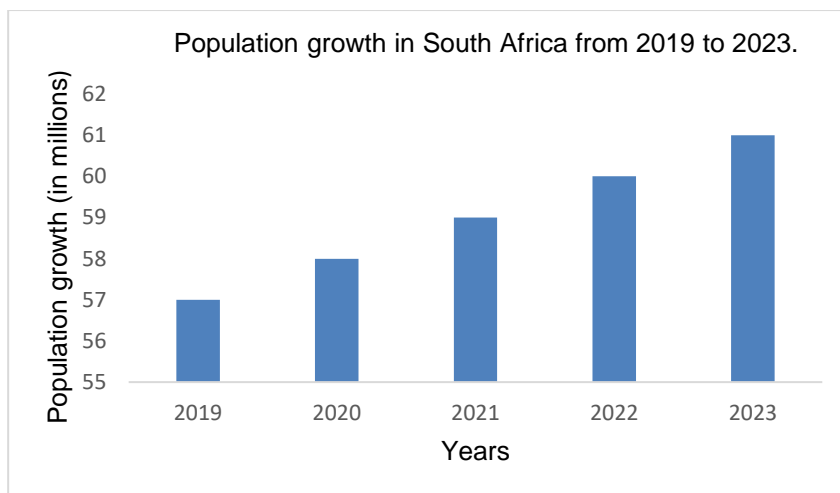
- 3.2 3.2.1 **Deduce the type of land ownership or type of land tenure**
- (a) Lease hold ✓ (1)
 - (b) Foreign land ✓ (1)
 - (c) State land ✓ (1)
 - (d) Labour tenancy land ✓ (1)

- 3.2.2 **The difference between land redistribution and land tenure reform**
- Land redistribution is meant to give poor and disadvantaged people access to land ✓
 - Land tenure reform is meant to secure farm labourers' living rights on the land ✓ (2)

- 3.3 3.3.1 **Definition of the term population growth**
- The increase ✓ in the number of people ✓ (2)

- 3.3.2 **TWO negative effects of population growth on the agriculture sector**
- Demand of food increases ✓
 - Mechanisation increases and less labour needed ✓
 - Urbanisation increases ✓
 - Agricultural land is used ✓
 - Increased deforestation ✓ (Any 2 x 1) (2)

3.3.3 **Bar graph**



CRITERIA/RUBRIC/MARKING GUIDELINES

- Correct heading ✓
- X axis: Correctly calibrated with label (Years) ✓
- Y axis: Correctly calibrated with label (Population growth) ✓
- Correct units (in millions) ✓
- Bar graph ✓
- Accuracy (80%+ correctly plotted) ✓

(6)
[25]

QUESTION 4: ANIMAL STUDIES**4.1 4.1.1 Identification of sheep breeds**

- (a) B ✓ (1)
 (b) A ✓ (1)
 (c) D ✓ (1)
 (d) C ✓ (1)

4.1.2 The name of the breed

- Dorper ✓ (1)

4.1.3 Differences between mohair and wool fibres

Mohair fibres	Wool fibres
<ul style="list-style-type: none"> • Smooth and glossy ✓ • Elastic fibre ✓ • Does not crinkle ✓ • Fibres are curly ✓ • Hollow centre fibres ✓ • Difficult to spin ✓ 	<ul style="list-style-type: none"> • Soft and whitish in colour ✓ • Crinkles more easily ✓ • Fibres are wavy ✓ • Fibres are more solid in the centre ✓ • Easy to spin ✓

(Any 3 x 2) (6)

4.2 4.2.1 Classification of poultry breeds

- (a) Dual-purpose breed ✓ (1)
 (b) Broiler breed ✓ (1)
 (c) Egg-laying breed ✓ (1)
 (d) Show breed ✓ (1)

4.2.2 THREE basic requirements for successful production

- Housing ✓
- Management ✓
- Breeding ✓
- Nutrition/Feeding ✓ (Any 3 x 1) (3)

4.3 4.3.1 Identification of the name of the breed

- Hampshire ✓ (1)

4.3.2 Identification of the gender of the breed

- Male/ Boar ✓ (1)

4.3.3 Justification

- Heavy animal/ large body/ prominent muscle formation ✓
- Large head ✓
- Prominent male reproductive organs (scrotum /testicles) ✓ (Any 2 x 1) (2)

4.3.4 THREE characteristics of Hampshire

- It is black with a white belt ✓
- It is large ✓
- Fertile ✓
- Good mothering ability ✓
- Outstanding carcass qualities ✓

(Any 3 x 1) (3)

[25]**TOTAL SECTION B: 75**
GRAND TOTAL: 100

SUBJECT:	Agricultural Sciences			ASSESSMENT				June test			
GRADE:	10			TASK:				Jun. 2024			
QUESTION ANALYSIS GRID											
QUESTION	Cognitive Levels			Topics and Difficulty Levels							
	1	2	3						Easy	Moderate	Difficult
QUEST. 1											
1.1.1	1								1		
1.1.2	1								1		
1.1.3	1								1		
1.1.4	1								1		
1.1.5	1								1		
1.1.6		1								1	
1.1.7		1								1	
1.1.8	1								1		
1.1.9		1								1	
1.1.10		1								1	
1.2.1	1								1		
1.2.2	1								1		
1.2.3	1								1		
1.2.4	1								1		
1.2.5	1								1		
1.3.1	1								1		
1.3.2	1								1		
1.3.3	1								1		
1.3.4	1								1		
1.3.5	1								1		
1.4.1	1								1		
1.4.2	1								1		
1.4.3	1								1		
1.4.4	1								1		
1.4.5	1								1		
TOTAL	21	4	0						21	4	
QUESTION 2	1	2	3						Easy	Moderate	Difficult
2.1.1			2								2
2.1.2		2								2	
2.1.3		1								1	
2.1.4		4								4	
2.2.1	1								1		
2.2.2		2								2	
2.2.3		3								3	
2.2.4	2								2		
2.2.5			2								2
2.3.1		1								1	
2.3.2	3								3		
2.3.3	2								2		
TOTAL	8	13	4						8	13	4

QUESTION 3	1	2	3					Easy	Moderate	Difficult
3.1.1			1							1
3.1.2			2							2
3.1.3	3							3		
3.1.4	3							3		
3.2.1(a)			1							1
3.2.1(b)			1							1
3.2.1(c)			1							1
3.2.1(d)			1							1
3.2.2		2							2	
3.3.1		2							2	
3.3.2	2							2		
3.3.3			6							6
TOTAL	8	4	13					8	4	13
QUESTION 4	1	2	3					Easy	Moderate	Difficult
4.1.1		1							1	
4.1.2		2							2	
4.1.3		1							1	
4.1.4			3							3
4.2.1		2							2	
4.2.2		6							6	
4.2.3		3							3	
4.3.1		1							1	
4.3.2		3							3	
4.3.3	3							3		
TOTAL	3	19	3					3	19	3
SUMMARY										
QUESTION 1	21	4	0					21	4	0
QUESTION 2	8	13	4					8	13	4
QUESTION 3	8	4	13					8	4	13
QUESTION 4	3	19	3					3	19	3
Total marks	40	40	20					40	40	20
Norm marks	40	40	20					40	40	20
Total %	40	40	20					40	40	20
Norm %	40	40	20					40	40	20