education

Department:
Education
North West Provincial Government
REPUBLIC OF SOUTH AFRICA

PROVINCIAL ASSESSMENT

GRADE 11

LIFE SCIENCES P2

NOVEMBER 2024

MARKING GUIDELINES

MARKS: 150

These marking guidelines consist of 10 pages.

PRINCIPLES RELATED TO MARKING LIFE SCIENCES

1. **If more information than marks allocated is given**
   Stop marking when maximum marks are reached and put a wavy line and 'max' in the right-hand margin.

2. **If, for example, three reasons are required and five are given**
   Mark the first three irrespective of whether all or some are correct/incorrect.

3. **If whole process is given when only part of it is required**
   Read all and credit relevant part.

4. **If comparisons are asked for and descriptions are given**
   Accept if differences /similarities are clear.

5. **If tabulation is required but paragraphs are given**
   Candidates will lose marks for not tabulating.

6. **If diagrams are given with annotations when descriptions are required**
   Candidates will lose marks.

7. **If flow charts are given instead of descriptions**
   Candidates will lose marks.

8. **If sequence is muddled and links do not make sense**
   Where sequence and links are correct, credit. Where sequence and links are incorrect, do not credit. If sequence and links become correct again, resume credit.

9. **Non-recognised abbreviations**
   Accept if first defined in answer. If not defined, do not credit the unrecognized abbreviation but credit the rest of answer if correct.

10. **Wrong numbering**
    If answer fits into the correct sequence of questions but the wrong number is given, it is acceptable.

11. **If language used changes the intended meaning**
    Do not accept.

12. **Spelling errors**
    If recognizable accept provided it does not mean something else in Life Sciences or if it is out of context.

13. **If common names given in terminology**
    Accept provided it was accepted at the National memo discussion meeting.

14. **If only letter is asked for and only name is given (and vice versa)**
No credit.

15. **If units are not given in measurements**
Candidates will lose marks. Memorandum will allocate marks for units separately.

16. Be sensitive to the sense of an answer, which may be stated in a different way.

17. **Caption**
All illustrations (diagrams, graphs, tables, etc.) must have a caption.

18. **Code-switching of official languages (terms and concepts)**
A single word or two that appears in any official language other than the learners' assessment language used to the greatest extent in his/her answers should be credited, if it is correct. A marker that is proficient in the relevant official language should be consulted. This is applicable to all official languages.

19. No changes must be made to the marking memoranda without consulting the Provincial Internal Moderator who in turn will consult with the National Internal Moderator (and the External moderators where necessary).

SECTION A

QUESTION 1

1.1	1.1.1	A✓✓		
	1.1.2	B✓✓		
	1.1.3	B✓✓		
	1.1.4	C✓✓		
	1.1.5	A✓✓		
	1.1.6	C✓✓		
	1.1.7	B✓✓		
	1.1.8	A✓✓		
	1.1.9	D✓✓		
	1.1.10	D✓✓	(10 x 2)	**(20)**

1.2	1.2.1	Eukaryotes✓		
	1.2.2	Phagocystosis ✓		
	1.2.3	Parasitism✓		
	1.2.4	Emigration✓		
	1.2.5	Thermal pollution✓		
	1.2.6	Lag phase✓		
	1.2.7	Census✓		
			(7 x 1)	**(7)**

1.3	1.3.1	A Only✓✓		
	1.3.2	A Only✓✓		
	1.3.3	B Only ✓✓		
	1.3.4	Both A & B✓✓	(4 x 2)	**(8)**

1.4 1.4.1 F – Petals✓ /corolla (1)
H – filament✓ (1)

1.4.2 G ✓- Anther✓ (2)

1.4.3 B,C,D and E✓✓or A (All or Nothing) (2)

1.4.4 Androecium✓/stamen (1)
(7)

1.5 1.5.1 7th year✓ (1)

1.5.2 3,1✓ - 2 ✓= 1,1%✓ (3)

1.5.3
- prophylactic medication✓ (accept Medication)
- insect repellent✓
- use mosquito nets✓
- stay inside when it is dark outside✓
- wear protective clothing✓
- avoid areas where malaria and mosquitoes are present if you are at higher risk✓

MARK FIRST TWO ONLY (2)

1.5.4
- high fever✓
- shaking chills
- sweating✓
- headache✓
- nausea and vomiting✓
- muscle or joint pain✓
- diarrhea✓
- fatigue✓

MARK FIRST TWO ONLY (2)
(8)

TOTAL SECTION A: 50

SECTION B

QUESTION 2

2.1 2.1.1

- Population is a group of individuals of the same species✓
- inhabiting same or define area✓
- in such proximity that random inter-breeding can occur. ✓/ at a specific time

(3)

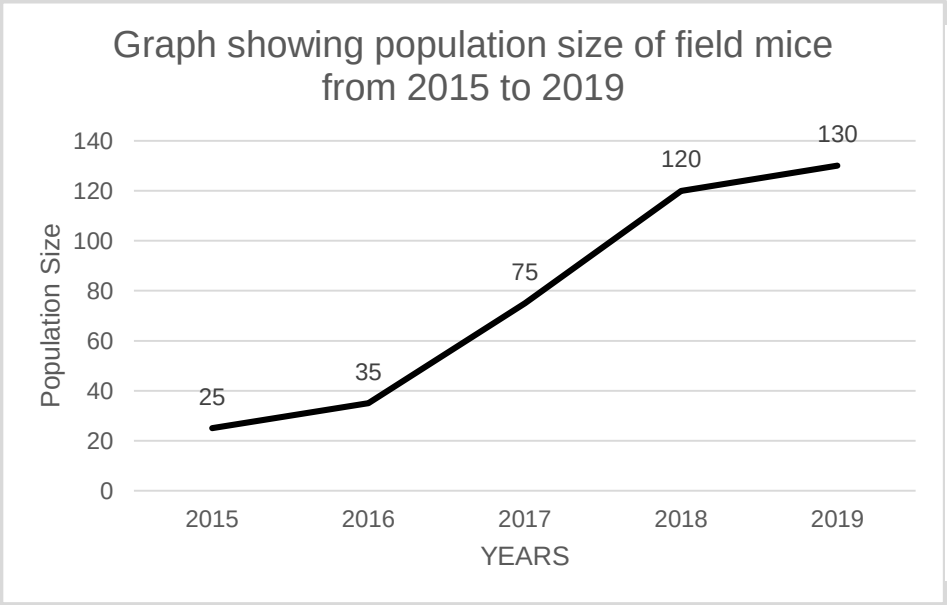
2.1.2

- there were few reproductive individuals✓
- had difficulty to find mating partners due to low density✓/
- need time to acclimatize

(2)

2.1.3 Conditions for reproduction were favourable ✓and environmental resistance is low. ✓ (2)

2.1.4



T= ✓

C= ✓

L= ✓

S= ✓

P= ✓✓

Criteria for marking graph (Rubric)

Criteria	**Mark allocation**
Line graph is drawn **(T)**	1
Correct caption of the graph includes both variables **(C)**	1
Correct labels on X—axis and Y axis **(L)**	1
Correct scale of X –axis and Y –axis **(S)**	1
Correct plotting done **(P)** **1—4 years** **All 5 years**	 1 2
Total mark	6

(6)

N.B If bar or histogram is drawn; marks will be lost for:
- Type
- scale

If axes are transposed:
- can get all marks if labels are also swopped and line graph is horizontal
- if labels are not corresponding, then
  - Marks will be lost for both labels and scale
  - plotting can be credited if coordinates are correct for given labels

2.1.5 Graph C✓ (1)

2.1.6 115 ✓ (accept 110 – 120) (1)

2.1.7 The number of field mice fluctuate around that number. ✓✓ (2)
(17)

2.2 2.2.1 Predation✓ (1)

2.2.2 Predator (Leopard) hunt✓ and kill the prey (antelope) ✓ (2)

2.2.3 Decrease ✓the population size of antelope (1)

2.2.4 (a) X ✓ (1)
(b) Y ✓ (1)

2.2.5 Competition ✓/Intraspecific competition. The interaction of the same species competing for the same resources✓ (2)

2.2.6 Decreases antelope population size✓ (1)

2.2.7
- Veld fire✓
- floods✓
- drought✓
- earth quake✓

Any 1 (1)
(10)

2.3 2.3.1 3 – stolon✓ 4 – Rhizoid ✓ 6 – columella ✓ (3)

2.3.2 1 – store /keeps spores✓/produce spore

4 – to anchor the mould /to absorb the nutrient from the bread✓

7 – for dispersal of spore✓/support and carry the sporangia high
MARK FIRST THREE (3)

2.3.3 Saprophytic ✓– derives nutrients from dead organic matters✓ (2)

2.3.4 ✓ (**table)**

FUNGI	BACTERIA
Eukaryotic cells✓/multiple nucleus	Prokaryotic cells✓/ No nucleus
Cell wall of chitin✓	Cell wall of protein, lipids& carbohydrate✓
Multicellular✓	unicellular✓

MARK FIRST TWO ONLY (5)
(1 table + Any 2 x 2) = 5

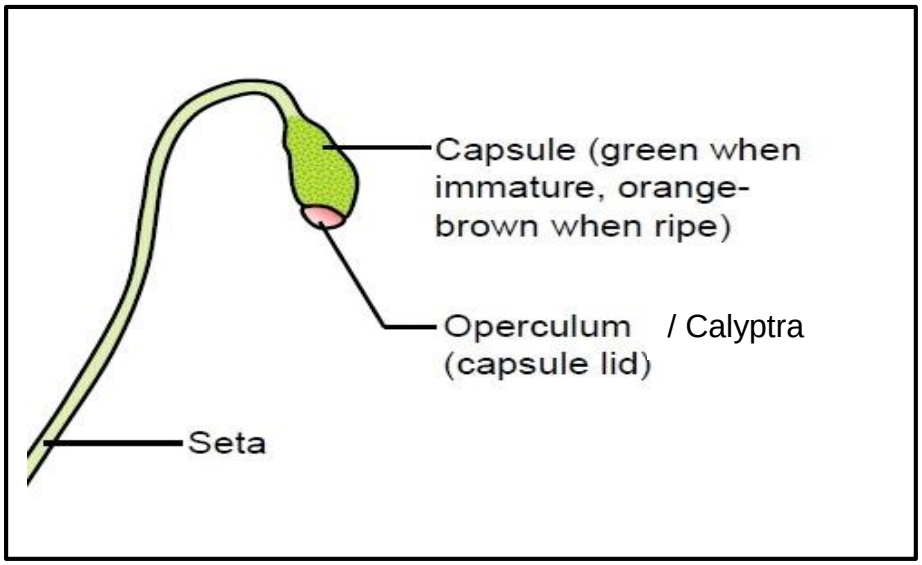
(13)

2.4 2.4.1 A – Gymnosperm✓ C – Angiosperm ✓ (2)

2.4.2 1- (female) cone ✓
3- (compound) leaf✓
4 – Rhizome ✓ (3)

2.4.3 Prothalus (1)

2.4.4



H= ✓
D= ✓
L=✓ ✓

Structure of the sporophyte generation of a moss

CRITERIA	MARKS
Correct Diagram **(D)**	1
Heading **(H)**	1
Any 2 correct labels **(L)**	2

(4)

N.B: If the learner drew whole plant including the gametophyte discredit mark for correct structure.

(10)

[50]

QUESTION 3

3.1 3.1.1 Damage to the environment ✓/ reducing trees (1)

3.1.2 contraception ✓ relocation of elephant families ✓ removing fences to allow migration ✓
MARK FIRST THREE ONLY (3)

3.1.3 50 000 (accept figures between 48 000 & 52 000) ✓✓ (2)

3.1.4 the sale of ivory and other elephant products, ✓ - as well as providing meat to the local communities. ✓ (2)
(8)

3.2. 3.2.1 A - bilateral symmetric ✓ (1)
B - asymmetrical ✓ (1)
C- radially symmetrical✓ (1)

3.2.2 2 - coelom✓ (1)
3 - mesoderm ✓ (1)
6 - mesoglea✓ (1)
8- digestive track✓ (1)

3.2.3 (a) F✓/E (1)
(b) D✓ (1)
(c) E✓ / F (1)
(d) D ✓ (1)

3.2.4 D✓ (1)

3.2.5 It has three germ layers (triploblastic) ✓and has true coelom (coelomate) ✓ (2)
(14)

3.3 3.3.1
- saves trees ✓
- saves energy✓
- saves water✓

MARK FIRST THREE ONLY (3)

3.3.2 Dry waste✓ (1)

3.3.3 Glass can be recycled many times✓ and does not lose any of its quality ✓or purity, but it is not decomposed naturally by microorganisms. ✓ (3)

3.3.4 Non-biodegradable✓ – products that cannot be broken down by living organisms. ✓ (2)
(9)

3.4 3.4.1 GM maize ✓, GM soya ✓ and GM cotton ✓
MARK FIRST TWO ONLY (2)

3.4.2 Farmers are forced to buy seeds, pesticides and fertilisers at high cost. ✓ Ownership and rights to the GMO seeds belongs to the companies and not to the farmers. ✓ Farmers using GMO seeds cannot do independent research to improve their crops. ✓ Profits go out of the country to enrich other wealthy countries ✓
MARK FIRST TWO (2)

3.4.3 Benefits of GMO: higher yields ✓, pest and disease resistant ✓, can be grown in places where conditions where previously unsuitable✓, they provide extra nutrients ✓
MARK ANY THREE (3)

3.4.4 GM could reduce the gene pool with the loss of variety ✓
This will negatively affect or reduce biodiversity ✓ (2)

3.4.5 (a) GMO: an organism that has its DNA altered ✓ for a specific purpose ✓ (2)

(b) when people have enough food ✓ to live a good, healthy life ✓/ To ensure sufficient nutritious food for all people at all the times. (2)
(13)

3.5 3.5.1 To determine the relationship between the presence of tall trees and wings on robberflies (2)

3.5.2 (a) presence of tall trees ✓ (1)

(b) wings on the robberflies (1)

3.5.3 Collected thousands of robberflies✓ (1)

Four locations for each category✓ (1)
(6)
[50]

TOTAL SECTION B: 100
GRAND TOTAL: 150