KWAZULU-NATAL PROVINCE

EDUCATION

REPUBLIC OF SOUTH AFRICA

NATIONAL SENIOR CERTIFICATE

GRADE 10

LIFE SCIENCES

SEPTEMBER COMMON TEST

MARKING GUIDELINE

2023

Stanmorephysics.com

MARKS:50

N.B This marking guideline consist of 7 pages.

PRINCIPLES RELATED TO MARKING LIFE SCIENCES

1. **If more information than marks allocated is given**
   Stop marking when maximum marks is 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 a part of it is required**
   Read all and credit the relevant part.

4. **If comparisons are asked for but descriptions are given**
   Accept if the 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 unrecognised abbreviation but credit the rest of the 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 recognisable, accept the answer, provided it does not mean something else in Life Sciences or if it is out of context.

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

14. **If only the letter is asked for but only the name is given (and vice versa)**

If units are not given in measurements

15. Candidates will lose marks. Memorandum will allocate marks for units separately.



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

16.

Caption

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

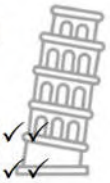
Code-switching of official languages (terms and concepts)

18. A single word or two that appear(s) 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.



SECTION A

QUESTION 1



1.1 1.1.1 D✓✓
1.1.2 C✓✓
1.1.3 C✓✓
1.1.4 C✓✓

(4X2) **(8)**

1.2 1.2.1 Biosphere✓
1.2.2 Biome✓
1.2.3 Extinction✓
1.2.4 Palaeontology✓ (4x1) **(4)**

1.3 1.3.1 Both A and B✓✓
1.3.2 B only✓✓

(2x2) **(4)**

1.4 1.4.1 Sedimentary rocks✓ (1)

1.4.2 A ✓ (1)

1.4.3 - Radiometric✓
- Relative✓ dating
(Mark the first TWO only) (2)
(4)

TOTAL QUESTION 1 (20)
TOTAL SECTION A [20]



SECTION B

QUESTION 2

2.1 2.1.1 (a) Cenozoic ✓ (1)
(b) Tertiary ✓ (1)

2.1.2 - There was a rapid increase in the number of species ✓
- that increased diversity of life forms✓on earth (2)

2.1.3 $\frac{190+140}{2}$✓ = 165 MYA✓ (2)
(Accept any correct method of calculation with the same answer) **(6)**

2.2 2.2.1 - Soil pH✓
- humus content✓
- permeability to water✓
(Mark the first TWO only) (2)

2.2.2 A✓ (1)

2.2.3 - Soil sample A is sandy soil ✓
- have large soil particles✓
- that allow water to pass easily✓ Any (2)

2.2.4 - The soil is infertile✓
- and cannot plough most crops successfully✓ (2)

2.2.5 - Increase sample size✓
- Repeat the investigation several times✓
- Calculate the average✓
(Mark the first TWO only) (2)
(9)

TOTAL QUESTION 2
[15]

QUESTION 3

3.1 3.1.1
- Overpopulation✓
- Pollution✓
- Burning of fossil fuels✓
- Deforestation✓

(Mark the first TWO only) (2)

3.1.2
- More space is needed to build houses✓
- for human settlements✓
- And this results in urbanisation✓
- And clearing the land✓ (removing trees)
- leading to fewer trees left ✓ Any (3)

3.1.3
- Issue penalties ✓ to those producing pollutants above the limit
- Subsidise alternatives✓
- Regulations to ban certain pollutants and pollution permits✓

(Mark the first ONE only) (1)
(6)

3.2 3.2.1 (a)
- Zebra✓
- springbok✓ Any (1)

(b)
- Hyena✓
- lion ✓ Any (1)

3.2.2 Population size will increase ✓ (1)

3.2.3



Food/ Energy pyramid

Marking Rubric:

Feature	Mark allocation
Correct type of diagram **(T)**	1
Caption **(C)**	1
Correct order of trophic levels **(O)**	1

(3)
(6)

3.3
- During respiration, oxygen is taken in by living organism ✓
- And carbon dioxide gas is given into the atmosphere✓
- Plant use carbon dioxide gas for photosynthesis✓
- Plants release oxygen as a by-product✓
- And is used for respiration by other organisms ✓ Any **(3)**

TOTAL QUESTION 3 [15]
TOTAL SECTION B [30]
GRAND TOTAL [50]



