FINAL

KWAZULU-NATAL PROVINCE
EDUCATION
REPUBLIC OF SOUTH AFRICA

NATIONAL SENIOR CERTIFICATE

GRADE 10

LIFE SCIENCES
COMMON TEST
MARKING GUIDELINE
SEPTEMBER 2024

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MARKS:50

This marking guideline consist of 6 pages.

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PRINCIPLES RELATED TO MARKING LIFE SCIENCES

1. **If more information than marks allocated is given**
   Stop marking when maximum mark 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.
   If only the letter is asked for but only the name is given (and vice versa)

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

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

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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 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



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SECTION A

QUESTION 1

1.1	1.1.1	D✓✓		
	1.1.2	A✓✓		
	1.1.3	B✓✓	(2 x 3)	**(6)**
1.2	1.2.1	Abiotic ✓		
	1.2.2	Alien ✓		
	1.2.3	Hibernation ✓		
	1.2.4	Sandy✓ soil		
	1.2.5	Biodiversity ✓		
	1.2.6	Endemic ✓	(1 x 6)	**(6)**
1.3	1.3.1	Both A and B ✓✓		
	1.3.2	B only✓✓	(2 x 2)	**(4)**
1.4	1.4.1	(a) Mammalia ✓		(1)
		(b) catus ✓		(1)
	1.4.2	Felis catus ✓		(1)
	1.4.3	Homo ✓		(1)
				(4)

TOTAL SECTION A: 20

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SECTION B

QUESTION 2

2.1 2.1.1 (a) Trace ✓ (1)

(b) Ammonite✓ (1)

2.1.2
- The organism dies and is rapidly covered ✓
- by sediment ✓/ silt
- As time passes layers of sediment build up over the body ✓
- The layers compress ✓ / are squashed
- by immense pressure building up✓
- Minerals begin to replace animal tissues and the body petrifies✓

OR

- The organism dies and is rapidly covered ✓
- by sediment ✓/ silt
- As time passes layers of sediment build up over the body ✓
- The layers compress ✓ / are squashed
- by immense pressure building up✓
- Decompose and leaving an imprint on the rock✓
- Sediment will fill up previously formed mould ✓ Any (4)

2.1.3 Radiometric✓ dating (1)
(7)

2.2 2.2.1 Extinction is the complete disappearance / death of all individuals of a species from Earth✓✓ (2)

2.2.2 Chalumna river ✓east coast of South Africa (1)

2.2.3
- They were thought to be extinct ✓
- Yet have existed unchanged ✓
- for millions of years✓ (3)

2.2.4
- Coelacanths from the fossil record lived in environments favouring fossilisation✓
- Modern Coelacanths, both in the Comoros and Sulawesi were found in environments that do not favour fossil formation✓ (2)

(**Mark the first TWO only)** **(8)**
[15]

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QUESTION 3

3.1 (a) Animals release carbon dioxide ✓during respiration resulting in the increase of the levels of carbon dioxide ✓ into the atmosphere (2)

(b) Plants use carbon dioxide✓ during photosynthesis resulting in the decrease of the levels of carbon dioxide ✓ in the atmosphere (2)

(c) Plants and animals release carbon dioxide✓ during decomposition resulting in the increase of the levels of carbon dioxide ✓ in the atmosphere (2)
(6)

3.2 3.2.1 20°C✓ (1)

3.2.2 Temperature✓
Light levels✓ (2)
(Mark the first TWO only)

3.2.3 $\frac{3.4 - 1.2}{1.2}$ ✓ x 100✓
= 183,33% ✓/ 183% (3)

3.2.4 - Repeat the investigation✓
- Increased sample size✓ (1)
(Mark the first ONE only)

3.2.5 As the day temperature increases the yield per plant of tomatoes also increases in low and high light levels until they reach an optimum✓✓
OR
As the day temperature increases the yield per plant of tomatoes also increases more in high light levels than in low light levels until they reach an optimum✓✓ (2)
(9)
[15]

TOTAL SECTION B: 30
GRAND TOTAL: 50

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