education

Department of Education
FREE STATE PROVINCE

GRADE 10

LIFE SCIENCES

FORMAL TEST 2.1

MARCH 2025

MARKING GUIDELINES

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TOTAL: 50

TIME: 1 hour

This marking guideline consists of 6 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 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)**
    Do not credit.

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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 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.

19. **Changes to memorandum**
No changes should be applied to the memorandum. The provincial internal moderator must be consulted.

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SECTION A

QUESTION 1

1.1	1.1.1	B✓✓		
	1.1.2	D✓✓		
	1.1.3	D✓✓		
	1.1.4	B✓✓		
	1.1.5	D✓✓	(2x5)	**(10)**
1.2	1.2.1	Condenser✓/ diaphragm		
	1.2.2	Goitre✓		
	1.2.3	Proteins ✓		
	1.2.4	Unsaturated fats✓	(4 x 1)	**(4)**
1.3	1.3.1	B only✓✓		
	1.3.2	B only✓✓		
	1.3.3	A only✓✓		**(6)**

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TOTAL QUESTION 1: 20
SECTION A: 20

SECTION B

QUESTION 2

2.1.1 (a) B✓ Ribosome✓ (2)
(b) D✓ Golgi-body✓ (2)
(c) A✓ Nucleus✓ (2)

2.1.2 **1** Nucleoplasm✓ (1)
2 Crista✓ /Inner membranes (1)

2.1.3 -Transports substances through the cytoplasm✓
-Increases the internal surface area of the cell✓

-Smooth ER - processing, packaging and transport of lipids✓ (2)
-Rough ER- involved in protein synthesis✓
(Mark first TWO only) (Any 2)

2.1.4 - Energy (in the form of ATP) is released√
- From carbohydrates√
- In the presence of oxygen√ (Any 2) (2)

2.1.5 - Phospholipid molecules√
- and (large) protein molecules√
- move around √ (3)

TOTAL QUESTION 2: 15

QUESTION 3

3.1.1 (a) Starch✓/Fats (1)
(b) Glucose✓ (1)

3.1.2 Q✓ (1)

3.1.3 (a) Millon's reagent✓/ Biuret test (Copper sulphate solution and sodium-hydroxide solution) (1)
(b)
Millon's reagent
Clear✓- wine red✓

Biuret test
Blue✓ – Purple/violet ✓ (2)

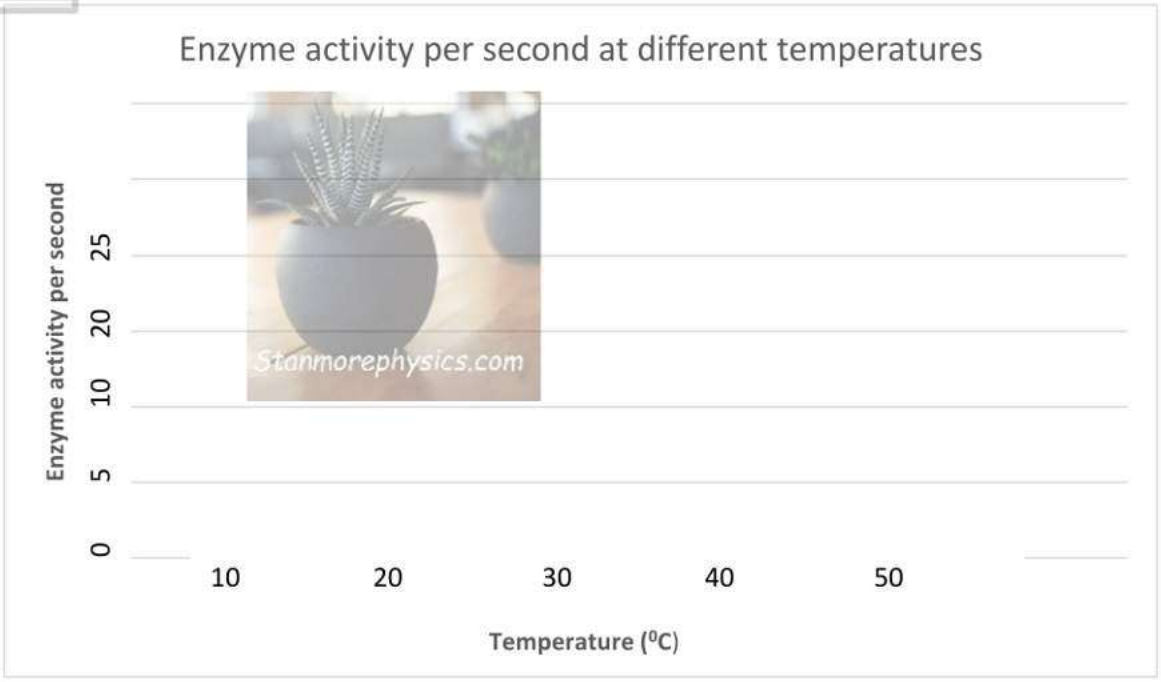
(6)

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3.2.1 Temperature✓ (1)

3.2.2 - The same test tubes √/ Test tubes with volume of 10 cm^3
- The same amount of milk used √/ **Fill milk up to 2 cm mark**
- The same amount of rennin added√ / **3ml rennin added**
- The same period√ / All test tube were kept for 15 min at different temperatures
(Mark first TWO only) (2)

3.2.3



(6)

Criteria	Mark allocation
Line graph is drawn **(T)**	1
Caption of the graph includes both variables **(C)**	1
Correct labels on X-axis and Y-axis with units **(L)**	1
Correct scale for X-axis and Y-axis. **(S)**	1
Plotting: **(P)** 1- 2 plotted correctly All 3 plotted correctly	 1 2

If axes are transposed:
• Can get all marks if labels are also swopped
• If labels are not corresponding, then:
➢ Marks will be lost for labels and scale
➢ Plotting can get credit if coordinates are correct for given labels

TOTAL QUESTION 3 15
TOTAL SECTION B: 30
GRAND TOTAL: 50

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