KWAZULU-NATAL PROVINCE
EDUCATION
REPUBLIC OF SOUTH AFRICA

FINAL

NATIONAL SENIOR CERTIFICATE

GRADE 10



LIFE SCIENCES

COMMON TEST

MARKING GUIDELINE

MARCH 2025

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Marks: 50

N.B This marking guideline consist of 7 pages.

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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**

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14. 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)

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.

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SECTION A

QUESTION 1

1.1 1.1.1 A ✓✓
1.1.2 B ✓✓
1.1.3 C ✓✓

2x3 **(6)**



1.2 1.2.1 Coarse adjustment knob✓
1.2.2 Metaphase ✓
1.2.3 Diffusion✓
1.2.4 Ribosome ✓
1.2.5 Iodine✓ solution

1x5 **(5)**

1.3 1.3.1 A only ✓✓
1.3.2 B only✓✓

2x2 **(4)**

1.4 1.4.1 (a) Substrate✓ molecule (1)
(b) Enzyme-substrate complex ✓ (1)
(c) Lock and key✓ model (1)

1.4.2 X✓ – Enzyme ✓ (2)
(5)

TOTAL SECTION A (20)

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SECTION B

QUEATION 2

2.1 2.1.1 Mitochondrion ✓ (1)

2.1.2 - Provide medium for many chemical reactions✓to take place
- Contains all the organelles of the cell✓
(Mark the first ONE only) Any (1)

2.1.3 It has:
- cell wall✓
- chloroplast✓
- large vacuole✓
(Mark the first TWO only) Any (2)

2.1.4 (a) - The cell will lose water✓
- turgor pressure will decrease✓
- Cell will become flaccid✓
- resulting in the loss of its shape ✓ (4)

(b) - Large number of part A / chloroplasts ✓
- Will increase the amount of light absorbed✓ / the rate of photosynthesis/ amount of food produced (2)
(10)

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2.2 2.2.1 - Controls all the activities in the cell✓
- Contains DNA which carry hereditary characteristics✓ (2)
(Mark the first TWO only)

2.2.2 Actual size = 75mm÷ 2000✓ OR (75 x 1000)÷ 2000✓
= 0,0375 x 1000✓ = 75000 ÷ 2000✓
= 37,5µm✓ = 37,5µm✓
(3)
(5)
[15]

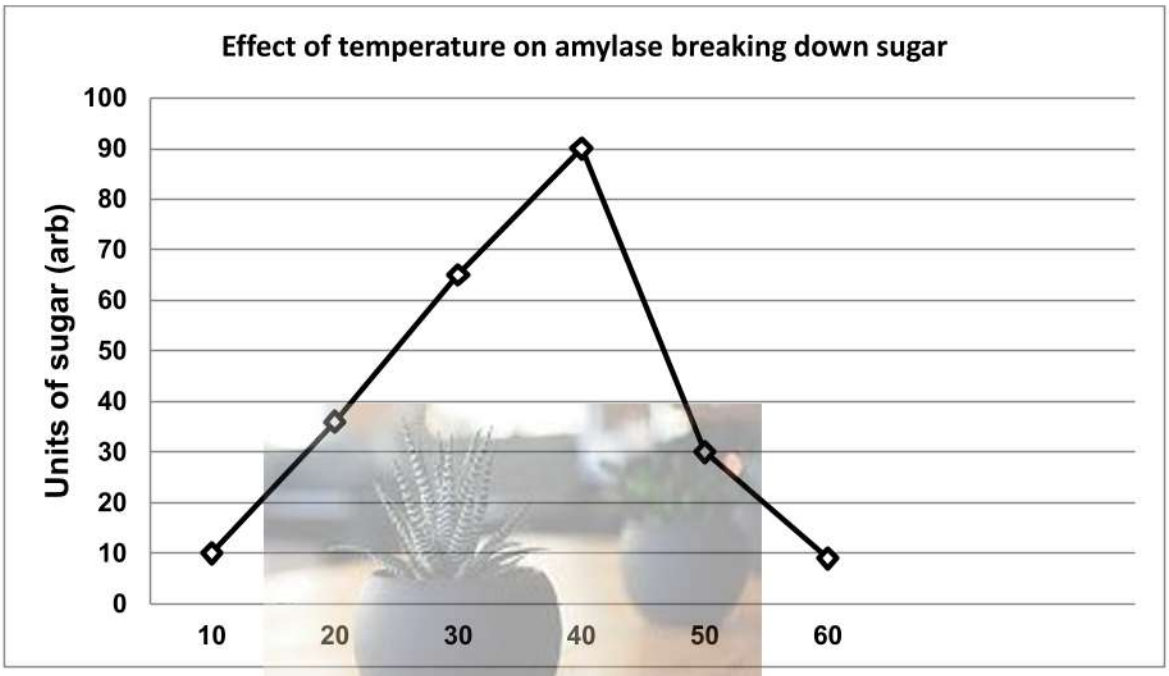
QUESTION 3

3.1 3.1.1 Temperature ✓ (1)

3.1.2 40✓ °C (1)

3.1.3 - It was where the enzyme activity was at its maximum/best✓
- Where it breaks down most of the sugar✓ / 90 sugar units (2)

3.1.4



Criteria for marking of the graph:

Criteria	Mark allocation
Correct type of graph **(T)**	1
Caption **(C)**	1
Correct labels with units in both Y & X –axis (**L**)	1
Correct scale in both Y and X – axis **(S)**	1
Plotting **(P)** correctly done for: 1- 5 points plotted ALL six points plotted	 1 2

(6)

(10)

3.2	3.2.1	Anaphase ✓	(1)
	3.2.2	- Spindle fibres contract✓/ shorten - Pulling chromatids✓ - To opposite poles✓	(3)
	3.2.3	4✓ /four	(1)
			(5)
			(15)

TOTAL SECTION B: 30
GRAND TOTAL: 50

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