KWAZULU-NATAL PROVINCE

EDUCATION

REPUBLIC OF SOUTH AFRICA

NATIONAL SENIOR CERTIFICATE

GRADE 10

LIFE SCIENCES

COMMON TEST

MARCH 2024

MARKING GUIDELINE

Stanmorephysics.com

Marks: 50

N.B 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 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.
   If only the letter is asked for but only the name is given (and vice versa)
   If units are not given in measurements

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

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

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

17. **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.

18. 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 B✓✓

1.1.2 C✓✓

1.1.3 B✓✓

2 x 3 **(6)**

1.2 1.2.1 Fine adjustment knob✓

1.2.2 lysosomes✓

1.2.3 disaccharides✓

1.2.4 Amino acids✓

1.2.5 Iodine

1 x 5 **(5)**

1.3 1.3.1 A only✓✓

1.3.2 B only✓✓ 2 x 2 **(4)**

1.4 1.4.1 Diffusion ✓ (1)

1.4.2 Passive process ✓ (1)

1.4.3 A to B✓ (1)

1.4.4 Diagram A has high concentration of particles /molecules✓ (2)
particles/ molecules move from area of high concentration ✓ to area of low concentration during diffusion **(5)**

[20

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SECTION B

QUESTION 2

2.1 2.1.1 Metaphase ✓ (1)

2.1.2 Chromosomes are lined at the equator✓ (1)
(**Mark the first ONE only**)

(1)

2.1.3 DNA replication✓

2.1.4 It ensures that genetic material is doubled✓ so that it is shared equally amongst the daughter cells during mitosis✓ (2)

2.1.5 The chromosomes become visible✓
As the threads of chromatin network become shorter and thicker✓
Nuclear membrane begin to disappear✓
The centrioles move to opposite poles✓
Spindle fibres begin to form between them ✓ Any (2)

2.1.6 4/four ✓ (1)
(8)

2.2 2.2.1 (a) Protein ✓ (1)
(b) Glucose ✓ (1)

2.2.2 Orange brown/ red-brown✓ (1)

2.2.3 -Decide on time/venue/place✓
-Decide on sample size✓
-Decide on the type of food✓
-Decide on the apparatus to be used✓
-Decide on the chemicals to be used✓
(**Mark the first TWO only)** (2)

2.2.4 -Increase sample size ✓
-Repeat/do more tests✓
(**Mark the first TWO only)** (2)

(7)

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QUESTION 3

3.1 3.1.1 A✓ – Cell membrane ✓ (2)

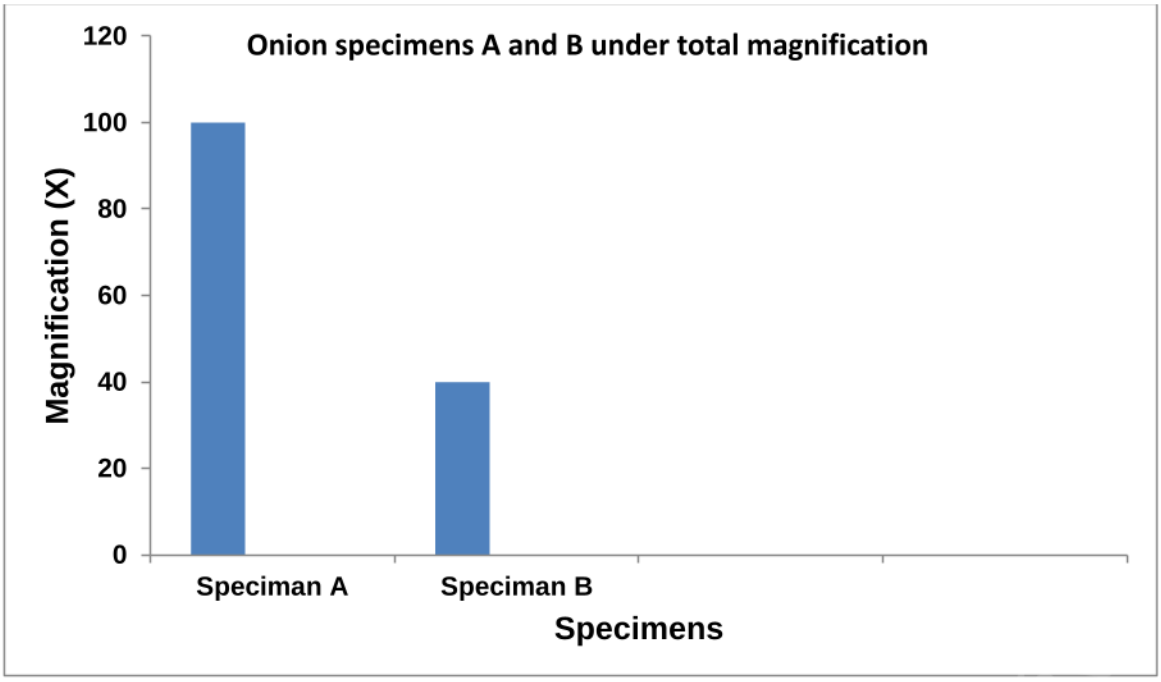
3.1.2 Facilitates transport of large molecules within the cytoplasm✓ (1)
(Mark the first ONE only)

3.1.3 Site of cellular respiration✓ (2)
Provide energy to the cell✓

3.1.4 Part C/ nucleus contains DNA ✓
That carries hereditary information✓
Which can be used to compare father's DNA and child's DNA✓
Any (2)
(7)

3.2 3.2.1 (a) P = 4x✓ (1)

3.2.2 (b) Q = 400X✓ (1)



Rubric for marking the graph

Feature	Marks
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, with equal bars and width between bars **(S)**	1
Correct plotting **(P)**	1: 1 bar plotted 2: only two bars plotted correctly

(6)
[30]

GRAND TOTAL [50]

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