



**GAUTENG DEPARTMENT OF EDUCATION
EKHURULENI NORTH DISTRICT
NATURAL SCIENCES MID-YEAR EXAMINATION
MARKING GUIDELINES
JUNE 2023
GRADE 8**

MARKS: 60

This marking guideline consists of 4 pages

SECTION A: SHORT QUESTIONS**QUESTION 1: MULTIPLE CHOICE**

- | | | |
|-----|-----|------------|
| 1.1 | D ✓ | (1) |
| 1.2 | D ✓ | (1) |
| 1.3 | A ✓ | (1) |
| 1.4 | C ✓ | (1) |
| 1.5 | B ✓ | (1) |
| | | [5] |

QUESTION 2: TERMINOLOGY

- | | | |
|-----|-------------|------------|
| 2.1 | diffusion ✓ | (1) |
| 2.2 | nucleus ✓ | (1) |
| 2.3 | electron ✓ | (1) |
| 2.4 | density ✓ | (1) |
| 2.5 | metal ✓ | (1) |
| | | [5] |

QUESTION 3: MATCH THE COLUMNS**COLUMN C**

- | | | |
|-----|-----|------------|
| 3.1 | D ✓ | (1) |
| 3.2 | B ✓ | (1) |
| 3.3 | A ✓ | (1) |
| 3.4 | C ✓ | (1) |
| 3.5 | F ✓ | (1) |
| | | [5] |

TOTAL FOR SECTION A: 15**SECTION B: LONG QUESTIONS****QUESTION 4**

- | | | |
|-----|-----|------------|
| 4.1 | C ✓ | (1) |
| 4.2 | A ✓ | (1) |
| 4.3 | D ✓ | (1) |
| 4.4 | E ✓ | (1) |
| 4.5 | B ✓ | (1) |
| | | [5] |

QUESTION 5

- | | | |
|-------|--|-----------|
| 5.1. | Gas particles move very fast. ✓ Gas particles have very large spaces. ✓ Gas particles collide with each other and with the sides of the container. ✓ There are very weak forces of attraction between the particles. ✓ Gas particles spread out to fill the container. ✓ | Any 3 (3) |
| 5.2.1 | Diffusion is the movement of particles from a region of higher concentration to a region of lower concentration. ✓✓ | (2) |
| 5.2.1 | Diffusion is slower in liquids ✓ than in gases. ✓ | (2) |
| 5.2.2 | Particles in the solid are closely packed. Very small spaces. ✓
The particles have strong force of attraction hence they cannot move but vibrate fixed lattice structure. ✓ | (2) |

[9]**QUESTION 6**

6.1 Magnesium oxide ✓ (1)

6.2 Electrolysis ✓ heat/ thermal decomposition ✓ (2)

[3]**QUESTION 7**

7.1 nihonium ✓ moscovium ✓ tennessine ✓ and oganesson ✓ (5)

7.2 7 ✓ (1)

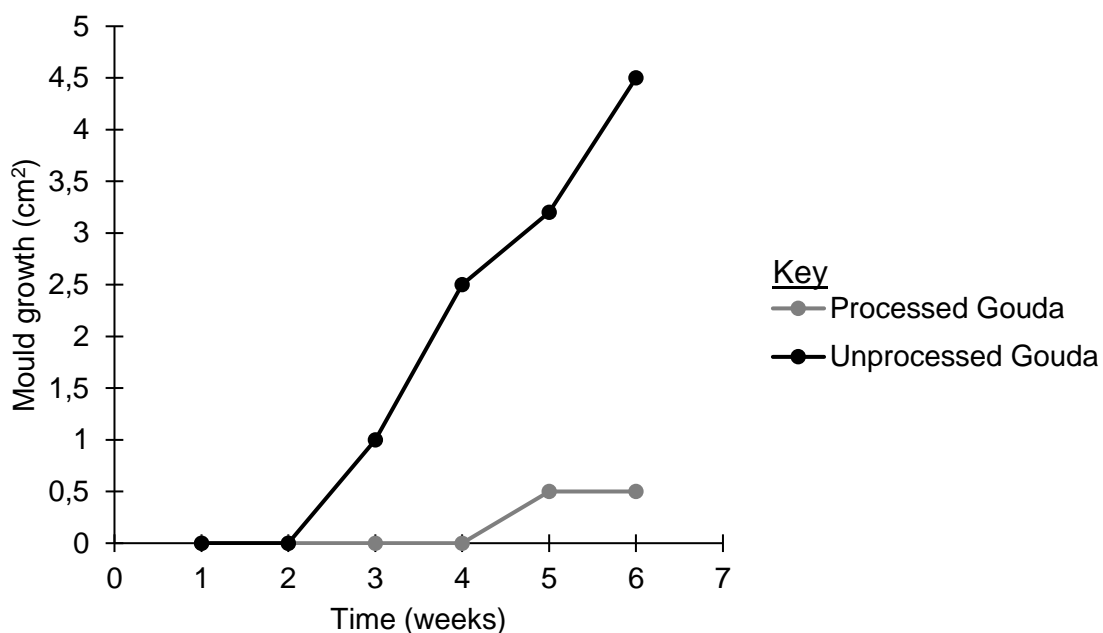
7.3 Dmitri Mendeleev ✓ (1)

7.4 B ✓; Al ✓; Ga; In; Tl; Nh (any 2) (2)

[8]

QUESTION 8		
8.1.1	Cork✓, Wood, Metal✓	(3)
8.1.2	It has a higher density✓, Its particles are closely packed together✓ / there are more particles/ mass in the same volume	(1)
8.1.3	Density = $\frac{mass}{volume}$ ✓ = $\frac{10,5\ g}{4,2\ cm^3}$ ✓ = 2,5g/cm ³ ✓ (with units)	(3)
		[7]
Question 9		
9.1	To compare the growth of cheese mould ✓ on processed Gouda and unprocessed Gouda over a period of 6 weeks ✓. (any similar)	(2)
9.2	Mould growth (cm ²) ✓	(1)
9.3	In a 6 week time period cheese mould growth on the unprocessed Gouda was more than the processed Gouda ✓. (any similar) (must be in past tense)	(1)

9.4 Comparative line graph to show cheese mould growth on processed Gouda and unprocessed Gouda over a period of 6 weeks



Criteria	Elaboration	Mark allocation
Type (T)	Line graph drawn ✓	1
Heading (H)	(Comparative line graph cheese mould growth (cm ²) (6 week period ✓ / time (weeks)) no units, no marks	1
Labels (L)	Time (week) on x-axis (unit) ✓ (no units, no marks) Mould growth (cm ²) on y-axis (unit) ✓	2
Scale (S)	Proper number line for x-axis ✓ Proper number line y-axis ✓ no tick marks, no marks	2
Plotting (P)	Some points plotted correctly (1 mark only) All points plotted correctly (2 marks total)	2
Key (K)	Key given and lines coloured accordingly ✓	1
Total		9

[13]

TOTAL FOR SECTION B: 45**GRAND TOTAL: 60**