

545/1
Chemistry
(Theory)
Nov/Dec 2023
Scoring Guide



MATIGO EXAMINATIONS BOARD

Uganda Certificate of Lower Secondary Education

S3 END OF YEAR ASSESSMENT 2023

SCORING GUIDE

CHEMISTRY

ITEM 1		
Basis of assessment	Assessment criteria	Scoring
Identifying group, period, protons, Noble gas and Ions formed	(i) B	01
	(ii) B	01
	(iii) E	01
	(iv) C	01
ITEM 2		
Changes of states of matter	1. Melting	01
	2. Condensation	01
	3. Freezing	01
	4. Evaporation	01
ITEM 3		
Apparatus and fractional distillation	(i) Liebig condenser	01
	(ii) In the beaker	01
	(iii) The boiling point of mineral water is less than boiling point of pure water	02
ITEM 4		
Types of hard water	• All types of hard water	03
	• Partial types of hard water	01
	• No type of hard water	00
Define the types of hard water	• Correct definition	02
	• Wrong definition	01
	• No definition	00
Soap reaction with hard water	• Shows chemical reaction	04
	• Does not show chemical reaction	00
Effectiveness of detergent	• Show and explain effectiveness of detergent correctly	04

	<ul style="list-style-type: none"> • Show and explain effectiveness of detergent but does not explain. • Does not show effectiveness 	01 00
Effect of detergent on water	<ul style="list-style-type: none"> • Correct effect • Wrong effect 	03 00
Explaining the choice	<ul style="list-style-type: none"> • Correct explanation • Wrong explanation • No explanation 	04 02 00
ITEM 5		
Raw materials	<ul style="list-style-type: none"> • All raw materials • Partial raw materials • No raw materials 	03 02 00
Process of production	<ul style="list-style-type: none"> • Setup • No setup • All chemicals and physical reactions • Half chemical and physical reactions • No reactions • Process of purification • Convection 	03 00 03 02 00 02 03
Side effects of process of production and mitigation	<ul style="list-style-type: none"> • Most side effects identified and method of mitigation • No side effects identified and no methods of mitigation. 	03 00
Alternative for social benefit	<ul style="list-style-type: none"> • Alternatives for social benefit stated • No alternative for social benefit stated 	03 00
ITEM SIX		
Examples of ammonium fertilizers	<ul style="list-style-type: none"> • All ammonium fertilizers • Some ammonium fertilizers • No ammonium fertilizers 	03 02 00
Formulae of ammonium fertilizers	<ul style="list-style-type: none"> • All correctly written • Some correctly written • Non correctly written 	03 02 00
Percentage of Nitrogen in the ammonium fertilizers	<ul style="list-style-type: none"> • Correct calculation • Some calculation • No calculation 	03 02 00
Comparing the percentage of nitrogen and make correct choice	<ul style="list-style-type: none"> • Correct comparison • Wrong comparison • No comparison 	02 01 00
Effect of continuous use of fertilizers	<ul style="list-style-type: none"> • Correct explanation • No explanation 	04 00
ITEM SEVEN		
Explanation on types of pollution identified	<ul style="list-style-type: none"> • Correct explanation • No explanation 	03 00
Causes of type of pollution	<ul style="list-style-type: none"> • Most causes • Some causes 	05 02

	<ul style="list-style-type: none"> No causes 	00
Effects of pollution to the air, land and water	<ul style="list-style-type: none"> At least 5 effects Less than 5 effects No effect 	03 02 00
Control of pollution	<ul style="list-style-type: none"> 5 methods of control Less than 5 control methods No method of control 	03 02 00
Awareness	<ul style="list-style-type: none"> Relates causes, effects and control to avoid pollution. does not show awareness 	03 00

END

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