

Name.....Signature.....

545/1

Chemistry.

Paper 1.

Oct-2023

2½ hrs

CHEMISTRY DEPARTMENT

New Lower secondary Assessment Exam Set 1

Senior three

Instructions.

*This paper consists of 6 extended questions , each carrying equal marks . Attempt **only 4** questions.*

For official use

No.	Marks.	Comment.
1		
2		
3		
4		
5		
6		
Total.		

1. Through out the ages, the human being has tried to explore the nature of the world around him motivated by the instinct to look for knowledge and skills which have improved life. This knowledge greatly consists of chemistry which has contributed to the economic development of different countries.

Task.

Write an article to be published in the New vision news paper about the contribution of chemistry to the economic development of Uganda. (20 marks)

2. If water didn't naturally and repeatedly return it's self to earth through series, we would run out of clean water which is essential to life.

Task. Design a poster and discuss how continuous availability of water in the earth- atmosphere system is maintained and important in life. (20 marks)

3 At the workshop organized by National Environment Management Authority (**NEMA**) at Serena Hotel Kampala, the theme of the workshop is " Addressing the increasing numbers of cases of water quality degradation near lake Victoria region which need urgent attention from public and all stake holders. Your school was invited at the workshop and you are the chairperson Environment Conservation Club.

Task Write a presentation on paper you would deliver at the workshop. (20 marks)

4. A technical team of researchers from World Health Organization (**WHO**), is making research about the Air quality in Kampala, the capital city of Uganda in the past two decades which has resulted into increased health funding from the Government. The team has involved different stake holders including schools to enable them make a **comprehensive** research report.

Task As the chairperson, Green Environment Protection Association (**GEPA**) at your school, Prepare a **detailed** report for the team to use as a research tool. (20 marks)

5. At an agrochemical store, different fertilizers are sold. Given two pairs of fertilizers , Pair A consists of ammonium sulphate and Ammonium nitrate where as pair B consists of potassium nitrate and calcium nitrate.



- (a) Provide a methodology approach to a large scale farmer in Ibanda district, Ishongororo-Katogyo which fertilizer in each pair A and B he would buy for maximum yields at his farm, include a reason for in case (12 marks)

(N= 14, H = 1 , O = 16, S= 32 , K = 39, Ca = 40)

- (b) Design a poster you would show to the farmer about the impact of excessive use of above agrochemicals on the farm.

(08 marks)

6. Magnesium sulphate injection is used to treat *Hypomagnesemia*, a health condition of low levels of magnesium in blood , especially administered where it is not possible for medicine to be taken by mouth. Your young sister has been diagnosed with Hypomagnesemia

but magnesium sulphate is not in stock at the school pharmacy (health unit) yet needed urgently.



The school pharmacist has advised you to coordinate with your laboratory technician at school and find a way of obtaining a fresh dry sample of magnesium sulphate in the laboratory and later take it to him for use.

Task. (a) Write a **detailed** practical report of how you solved the problem as guided by the pharmacist. **(15marks)**

(b) Design poster with a message about the dangers of low levels of magnesium in human body. **(05 marks)**

