NAME:				
SCHOOL:	RANDOM NO:			
545/2				
CHEMISTRY				
PAPER 2				
JULY/AUG 2024				
2hours				



# AITEL JOINT MOCK EXAMINATIONS.

## **Uganda Certificate of Education**

**CHEMISTRY** 

PAPER 2

Theory

2 Hours

### INSTRUCTIONS TO CANDIDATES:

- This paper consists of one compulsory examination item;
- Answers to this item are to be written in the spaces provided in this booklet; use blue or black ink.
- All working must be clearly shown in good hardworking writing
- Mathematical table and silent non-programmable scientific calculator may be used.
- You are not allowed to use reference books. (i.e. text books, phones etc.)
- Candidates are advised to carefully read the item, make sure they have all the apparatus and chemicals they may need and then plan appropriately before starting.

### Item 1

A photographic laboratory uses sodium thiosulphate solution in combination with acids for fixing and stopping photographic development, however the quality of photographs produced has greatly reduced since they started using a new consignment of sodium thiosulphate bought recently. The quality controllers explained that the quality of photographs and the processing time is dependent on the amount of sulphur deposited in the process which depends on the concentration of the thiosulphate used.

$$S_2O_3^{2-}$$
 (aq) + 2 H<sup>+</sup> (aq)  $\longrightarrow$   $S_{(S)} + SO_2$  (g) + H<sub>2</sub>O (l)

The manager of the factory immediately demanded an investigation to understand this better.

You are provided with:

BA<sub>1</sub> a solution of sodium thiosulphate that was recently bought

BA2 hydrochloric acid solution.

### Task

(a) As a learner of chemistry

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i) ii)	Carry out the experiment and record your findings
iv)	Obtain values of $\frac{1}{\text{Time}}$ and explain your finding.

hat can the students de	educe from the fine	dings?	
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END