

# CONFIDENTIAL

THE UNITED REPUBLIC OF TANZANIA  
NATIONAL EXAMINATIONS COUNCIL  
CERTIFICATE OF SECONDARY EDUCATION EXAMINATION  
NOVEMBER 2014

032/2A

CHEMISTRY 2A  
(ACTUAL PRACTICAL A)

## 24 HOURS ADVANCE INSTRUCTIONS

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### 1.0 IMPORTANT

- 1.1 GREAT CARE MUST BE TAKEN NOT TO DIVULGE THESE INSTRUCTIONS TO BOTH CANDIDATES AND TO UNAUTHORIZED PERSONS EITHER DIRECTLY OR INDIRECTLY.
- 1.2 NOTE THAT YOU WILL NOT BE ALLOWED TO OPEN THE ENVELOPE CONTAINING THE QUESTION PAPER BEFORE THE TIME OF COMMENCEMENT OF THE EXAMINATION.

### 2.0 PREPARATION AND LABELLING OF CHEMICALS

#### 2.1 Question 1

Prepare the following:

- 0.05 M oxalic acid ( $\text{H}_2\text{C}_2\text{O}_4 \cdot 2\text{H}_2\text{O}$ ) solution. Label it **H** and allow  $200 \text{ cm}^3$  per candidate.
- 0.05 M potassium hydroxide solution. Label it **M** and allow  $200 \text{ cm}^3$  per candidate.
- Provide phenolphthalein indicator for sharing in the ratio of one to two candidates.

#### 2.2 Question 2

Prepare the following:

- 1 M sodium thiosulphate ( $\text{Na}_2\text{S}_2\text{O}_3$ ) solution. Label it **Z** and allow  $20 \text{ cm}^3$  per candidate.
- 0.1 M nitric acid ( $\text{HNO}_3$ ) solution. Label it **T** and allow  $20 \text{ cm}^3$  per candidate.
- Distilled water and allow  $100 \text{ cm}^3$  per candidate.
- One stop-watch to each candidate
- A white plain paper uniformly marked **X** to all candidates.

#### 2.3 Question 3

- Provide each candidate with 3 g of lead (II) chloride ( $\text{PbCl}_2$ ) and label it **Q**.
- Provide about  $300 \text{ cm}^3$  distilled water per candidate.
- Heat source or burner for sharing in the ratio of one to four candidates.

### 3.0 NOTE TO EXAMINATIONS SUPERVISOR AND LABORATORY TECHNICIAN/HEAD OF CHEMISTRY DEPARTMENT:

Laboratory Technician or Head of Chemistry Department should perform an experiment for Question 1 and 2 during the last thirty (30) minutes of the examination time and submit to the Council the experimental data together with the candidates' results (Answer booklets).

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