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

#### **NOVEMBER 2013**

032/2A

## CHEMISTRY 2A (ACTUAL PRACTICAL A)

#### 24 HOURS ADVANCE INSTRUCTIONS

#### 1.0 IMPORTANT

- 1.1 GREAT CARE MUST BE TAKEN NOT TO DIVULGE THESE INSTRUCTIONS TO BOTH CANDIDATES AND 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:

- 0.1 M acetic acid solution. Label it JJ and allow 150 cm<sup>3</sup> per candidate.
- 0.088 M potassium hydroxide by dissolving 4.9 g in 1000 cm<sup>3</sup>, label it KK and allow 150 cm<sup>3</sup> per candidate.
- Provide phenolphthalein indicator for sharing in the ratio of one to two candidates.

#### 2.2 Question 2

Prepare the following:

- 0.5 M sodium thiosulphate (Na<sub>2</sub>S<sub>2</sub>O<sub>3</sub>) solution. Label it L<sub>1</sub> and allow 75 cm<sup>3</sup> per candidate.
- 0.1 M hydrochloric acid (HCl) solution. Label it L<sub>2</sub> and allow 125 cm<sup>3</sup> per candidate.
- Distilled water and allow 75 cm<sup>3</sup> per candidate.
- · Provide one stopwatch and a white plain paper per candidate.

#### 2.2 Question 3

- Provide 3 g of calcium carbonate. Label it U.
- Provide enough distilled water 300 cm<sup>3</sup> per candidate.
- Heat source or burner (candidates must not exceed four for sharing).

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

Laboratory Technician or Head of Chemistry Department should perform an experiment of Question 1 and 2 during the last thirty (30) minutes of the examination

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time and submit to the Council the experimental results together with the candidates' data (Answer booklets).

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