

**THE UNITED REPUBLIC OF TANZANIA  
NATIONAL EXAMINATIONS COUNCIL OF TANZANIA  
CERTIFICATE OF SECONDARY EDUCATION EXAMINATION 2020**

**032/2A**

**CHEMISTRY 2A  
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 MAKE SURE THAT THE CANDIDATES ARE PROVIDED WITH CHEMICALS AND APPARATUSES AS INDICATED IN THESE ADVANCE INSTRUCTIONS ONLY AND NOT OTHERWISE.

**2.0 PREPARATION AND LABELLING OF CHEMICALS AND APPARATUSES**

**2.1 Question 1**

- Prepare 0.1 M  $\text{Na}_2\text{CO}_3$  solution and label it **AY**, provide 150 cm<sup>3</sup> per candidate.
- Prepare 0.2 M HCl solution and label it **AX**, provide 150 cm<sup>3</sup> per candidate.
- Provide each candidate with phenolphthalein (POP) indicator and methyl orange (MO) indicator.
- Provide each candidate with two test tubes.
- Provide each candidate with 1 burette, 1 white tile, 1 pipette (20 cm<sup>3</sup> or 25 cm<sup>3</sup>) titration flask, 1 retort stand and a clamp.

**2.2 Question 2**

- Prepare 0.50 M sodium thiosulphate and label it **P<sub>1</sub>**, allow 150 cm<sup>3</sup> per candidate.
- Prepare 0.1 M hydrochloric acid and label it **P<sub>2</sub>**, allow 150 cm<sup>3</sup> per candidate.
- Provide distilled water and label it **P<sub>3</sub>**; allow 80 cm<sup>3</sup> per candidate.
- Draw a uniform mark **X** on one side of a 8 cm × 8 cm piece of a white paper using a blue pen and allow one piece per candidate.
- Provide each candidate with a 100 cm<sup>3</sup> beaker.
- Provide each candidate with a 50 cm<sup>3</sup> measuring cylinder.
- Provide each candidate with a stop watch / clock.

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

Laboratory technician or Head of Chemistry Department should perform the experiments in Question 1 and 2 during the last 30 minutes of the last session of the examination. The

experimental data must be recorded in the form in page 3 of these instructions and **enclosed together with the candidates' scripts** (Answer booklets) for submission to the Examinations Council.