THE UNITED REPUBLIC OF TANZANIA
NATIONAL EXAMINATIONS COUNCIL OF TANZANIA
CERTIFICATE OF SECONDARY EDUCATION EXAMINATION 2024

032/2A

CHEMISTRY 2A
ACTUAL PRACTICAL A

3 HOURS PRACTICAL 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 MAKE SURE THAT THE CANDIDATES ARE PROVIDED WITH CHEMICALS AND APPARATUSES AS INDICATED IN THESE PRACTICAL INSTRUCTIONS ONLY AND **NOT** OTHERWISE.

2.0 PREPARATION AND LABELLING OF CHEMICALS AND APPARATUSES

2.1 Question 1

- Prepare 0.1 M acetic acid (ethanoic acid) solution by diluting 5.78 cm^3 of glacial acetic acid (density = 1.049 g/cm^3 and % purity = 99%) with distilled water to make 1 dm^3 solution. Label it **VINEGAR** and allow 150 cm^3 per candidate.
- Prepare 0.06 M NaOH solution by dissolving 2.4 g of sodium pellets in distilled water to make 1 dm^3 of solution. Label it **NaOH** and allow 150 cm^3 per candidate.
- Provide each candidate with phenolphthalein (POP) indicator.
- Provide each candidate with 1 burette, 1 titration flask (250 cm^3), 1 pipette (20 or 25 cm^3), 1 white tile, 1 glass/plastic dropper, 1 pipette filler, 1 retort stand and a clamp.
- Provide 2 pieces of masking tape or 2 labels for labelling beakers.

2.2 Question 2

- Provide 3 g $FeSO_4$ per candidate label it **PP**.
- Provide 300 cm^3 distilled water per candidate.
- Provide concentrated sulphuric acid on the front bench, to be closely monitored.
- Provide sodium hydroxide, dilute hydrochloric acid, concentrated hydrochloric acid, barium chloride, potassium dichromate, potassium hexacyanoferrate (III) and ammonia solution as bench reagents.
- Provide 2 strips of both red and blue litmus papers to each candidate.
- Provide 1 filter paper per candidate.
- Provide a piece of nichrome wire/platinum wire to each candidate.
- Provide 4 boiling test tubes per candidate.
- Provide heat source for sharing in the ratio of 1:4