THE UNITED REPUBLIC OF TANZANIA
NATIONAL EXAMINATIONS COUNCIL OF TANZANIA

032 CHEMISTRY ACTUAL PRACTICALS FOR THE CERTIFICATE OF SECONDARY EDUCATION EXAMINATION 2022

A CHECKLIST OF CHEMICALS AND APPARATUSES

1.0 IMPORTANT

The National Examinations Council has prepared a checklist of apparatuses and chemicals for Chemistry Actual Practicals examination. As a Head of the school **make sure that all the apparatuses and chemicals** indicated in this checklist are available in the school laboratory. Some of these will be used for the Certificate of Secondary Education Examination (CSEE) 2022 chemistry practicals. The **03 Hours Practical Advance Instructions** will be provided.

2.0 LIST OF APPARATUSES AND CHEMICALS

In addition to the normal fitting of a Chemistry laboratory, the school must prepare the following apparatuses and chemicals for each candidate as will be prescribed in the 03 Hours Advance Instructions.

2.1 Apparatus

- 1 burette (50 ml) ✓
- 1 pipette (20 ml or 25 ml) ✓
- 2 boiling test tubes ✗
- 1 pipette filler ✓
- 2 conical flasks (250 ml) ✓
- 1 conical flask cork/rubber stopper ✗
- 1 retort stand and a clamp ✓
- 1 pyrex beaker (250 ml or 300 ml) ✓
- 1 beaker (50 ml) ✗
- 1 beaker (100 ml) ✓
- 2 beakers (250 or 300 ml) ✓
- 1 test tube rack ✓
- 1 tripod stand ✓
- 1 wire gauze ✓
- 1 glass/plastic funnel (brim diameter which ranges from 50 to 100 mm) ✓
- 1 stopwatch or stop clock ✓
- 1 glass rod ✓
- 1 measuring cylinder (10 ml) ✓
- 1 measuring cylinder (50 ml) ✓
- 1 measuring cylinder (100 ml) ✓
- 1 thermometer (0 °C–100 °C) ✓
- 1 heat source for sharing in the ratio of 1:4 ✓
- 4 g cotton wool ✓
- 1 watch glass ✓
- 1 A4 white paper ✓
- 1pc masking tape / 2 labels ✗
- 1 glass/plastic dropper ✓
- 2 both blue and red strips of litmus papers ✓

2.2 Chemicals

- 1 g sulphuric acid ✓
- 1 g hydrochloric acid ✓
- 1 g acetic acid ✓
- 3 g potassium permanganate ✓
- 1 g hydrated oxalic acid ✓
- 1.5 g hydrochloric acid ✓
- 300 ml distilled water
- 0.5 g phenolphthalein indicator
- 1 g sodium hydroxide ✓
- 0.4 g magnesium ribbon ✓
- 2.0 g magnesium carbonate ✓
- 4 g hydrated sodium thiosulphate ✓
- 4 g zinc nitrate ✗
- 0.5 g silver nitrate ✓
- 2 g hydrogen peroxide ✓
- 2 g nitric acid ✗

- 0.5 g methyl orange indicator
- 4 g ammonium chloride
- 2 g ammonium sulphate
- 4 g calcium carbonate
- 4 g zinc chloride
- 4 g iron (II) sulphate
- 1 g potassium hydroxide
- 2 g sodium carbonate decahydrate
- 4 g lead nitrate
- 4 g copper (II) nitrate

- 2 ml ammonia solution
- 4 g iron (III) chloride
- 3 g calcium nitrate
- 0.5 g barium chloride
- 0.5 g sodium hydrogen carbonate
- 2.0 g potassium hexacyanoferrate (III)
- 3 g copper nitrate
- 4 g sodium chloride
- 4 g copper (II) sulphate
- 4 g anhydrous sodium carbonate

3.0 OTHER REQUIREMENTS

3.1 Labels

Prepare a marker pen and masking tape for labelling chemicals and solutions.

3.2 Bench Reagents

Ensure that, all bench reagents are available and fresh.