

**THE UNITED REPUBLIC OF TANZANIA
NATIONAL EXAMINATIONS COUNCIL OF TANZANIA**

**032 CHEMISTRY PRACTICALS FOR CERTIFICATE OF SECONDARY
EDUCATION EXAMINATION, 2020**

A CHECKLIST OF CHEMICALS AND APPARATUSES

1.0 IMPORTANT

The National Examinations Council has prepared a checklist of apparatuses and chemicals for Chemistry practicals. As a Head of the school, make sure that **all** the requirements indicated in this checklist are available in the school laboratory. Some of these will be used in the Certificate of Secondary Education Examination (CSEE) 2020 Chemistry practicals as will be prescribed in the 24 Hours Advance Instructions.

2.0 LIST OF APPARATUSES AND CHEMICALS

In addition to the normal fitting and reagents of CSE Chemistry laboratory, each candidate will require some of the listed apparatuses and chemicals as will be prescribed in the 24 hours advance instructions.

2.1 Apparatuses

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| • 1 burette (50 ml) ✓ | • 1 measuring cylinder (10 ml) ✓ |
| • 2 boiling test tubes ✓ | • 1 glass/plastic funnel (Brim diameter which ranges from 50 mm to 100 mm) ✓ |
| • test tube rack ✓ | • 1 measuring cylinder (50 ml) ✓ |
| • 1 pipette filler ✓ | • 1 measuring cylinder (100 ml) ✓ |
| • 1 pipette (20 ml or 25 ml) ✓ | • 1 stopwatch or stopclock ✓ |
| • 4 conical flasks (250 ml) ✓ | • 1 glass rod ✓ |
| • 1 conical flask cork/rubber stopper ✓ | • 1 thermometer (0 °C–100 °C) ✓ |
| • 1 retort stand and a clamp ✓ | • 1 heat source for sharing in the ratio of 1:4 ✓ |
| • 1 tripod stand ✓ | • 4 g cotton wool ✓ |
| • 1 beaker (50 ml) ✓ | • 1 water bath ✓ |
| • 1 beaker (100 ml) ✓ | • 2 droppers (glass or plastic) ✓ |
| • 5 beakers (250 or 300 ml) ✓ | • 1 white tile ✓ |
| • 1 wire gauze ✓ | • 1 filter paper ✓ |
| • 1 pipette filler ✓ | • 2 both blue and red strips of litmus paper ✓ |

2.2 Chemicals

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|---|---|
| • 1 g sulphuric acid ✓ | • 3 g sodium hydroxide ✓ |
| • 4 g hydrated sodium thiosulphate ✓ | • 0.4 g magnesium ribbon ✓ |
| • 3 g potassium permanganate ✓ | • 2.0 g magnesium carbonate ✓ |
| • 1 g hydrated oxalic acid ✓ | • 4 g zinc nitrate ✓ |
| • 1.5 g hydrochloric acid ✓ | • 0.5 g silver nitrate ✓ |
| • 2.5 g anhydrous sodium carbonate ✓ | • 2 g hydrogen peroxide ✓ |
| • 500 cm ³ distilled water ✓ | • 1 g nitric acid ✓ |
| • 0.5 g phenolphthalein indicator ✓ | • 2 cm ³ ammonium solution ✓ |
| • 0.5 g methyl orange indicator ✓ | • 4 g iron (III) chloride ✓ |
| • 4 g ammonium chloride ✓ | • 4 g copper (II) nitrate ✓ |

- 2 g ammonium sulphate ✓
- 4 g calcium carbonate ✓
- 4 g zinc chloride ✓
- * • 4 g iron (II) sulphate ✓
- 4 g copper carbonate ✓

- 4 g sodium chloride ✓
- 4 g copper (II) sulphate ✓
- 4 g lead nitrate ✓