

232/3
CHEMISTRY
PAPER 3
(PRACTICAL)

CONFIDENTIAL

1. **REQUIREMENTS**

Each candidate will require:

- 150cm³ of 0.08M sodium hydroxide, solution A.
- 80cm³ of 0.5M H₂C₂O₄.2H₂O (oxalic acid), labelled solution B.
- 2.0g anhydrous sodium carbonate.
- 25ml measuring cylinder and 10ml measuring cylinder.
- Beaker (250ml)
- 1 glass rod.
- Volumetric flask (250ml).
- 1 label.
- 2 conical flasks.
- 1 burette.
- 1 pipette (25.0ml)
- 1 white tile.
- 1 filter funnel.
- 1 stand and clamp.
- Phenolphthalein indicator.
- Distilled water.
- 50cm³ 2.0M hydrochloric acid, solution K.
- 80cm³ of 0.15M sodium thiosulphate, solution L.
- White piece of paper.
- 100ml glass beaker.
- Thermometer.
- Stop watch.
- About 0.5g of solid X. [Mixture of ZnCO₃ + Na₂SO₃ in the ratio 1: 1].
- About 1g of Na₂CO₃.
- 1 filter paper.
- 2 red and 2 blue litmus papers.
- Liquid Z (8cm³ of absolute ethanol).
- 1 spatula.
- 1 test-tube holder.
- 1 watch glass.
- 1 wooden splint.
- 1 boiling tube.
- 5 test-tubes in a rack.

Access to:-

- Source of heating.
- Acidified potassium manganate (VII).
- 2M NaOH_(aq)
- 0.5M lead (II) nitrate solution.
- Barium chloride solution.
- Universal indicator.
- Acidified potassium dichromate (VI).

