

**233/3**  
**CHEMISTRY**  
**PRACTICAL**  
**PAPER 3**

**INSTRUCTIONS TO SCHOOLS**

The information contained in this paper is to enable the head of the school and the teacher in charge of Chemistry to make adequate preparations for this year's chemistry practical examination. **NO ONE ELSE** should have access to this paper or acquire of its contents. Great care **MUST** be taken to ensure that the information here in does not reach the candidates either directly or indirectly. The teacher in charge of chemistry should **NOT** perform any of the experiments in the same room as the candidate nor make the results of the experiments available to the candidates or given any other information related to the experiments to the candidates. Doing so will constitute an examination irregularity which is punishable.

In addition to the apparatus and the fittings found in a chemistry Laboratory, each candidate will require the following;

1. About 50cm<sup>3</sup> of solution V
2. About 50cm<sup>3</sup> of solution K
3. 1.89g of solid P accurately weighed and placed in a stopped container.
4. Thermometer (one)
5. Red and blue litmus
6. 5 dry test tubes in a test tube rack
7. Spatula
8. Bunsen burner
9. Solid P is oxalic acid
10. Solid S is ferrous ammonium sulphate; about 2g of solid S placed in a stopped container.
11. About 120cm<sup>3</sup> of solution M
12. About 90cm<sup>3</sup> of solution F

**Access to;**

- a) Bunsen burner
- b) 2M aqueous ammonia with a dropper
- c) 2M sodium hydroxide with a dropper
- d) 2M Barium chloride with a dropper
- e) 2M Lead (II) nitrate with a dropper
- f) Hydrogen peroxide with a dropper
- g) Methyl orange with a dropper.

**Notes**

1. Solution V is prepared by dissolving 63g of oxalic acid to make one litre of solution.
2. Solution K is prepared by dissolving 16g of sodium hydroxide pellets to make one litre of solution.
3. Solution M is prepared by dissolving 17cm<sup>3</sup> of concentrated hydrochloric acid to make one litre of solution.
4. Solution F is prepared by dissolving 15.3g of hydrated sodium hydrogen carbonate to make one litre of solution.
5. Solid P is Oxalic acid
6. Solid S is ferrous ammonium Sulphate