**TRIAL EXAMINATIONS 2021**

**Kenya Certificate of Secondary Education (KCSE)**

**CONFIDENTIAL**

**233/3 - CHEMISTRY - Paper 3**

**Inst. Sch. (PRACTICAL)**

 **Nov/Dec. 2021**

**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 the Chemistry practical examination.

**No one else** should have access to this paper or acquire knowledge of its contents. Great care **must** be taken to ensure that the information herein does **not** reach the candidate either directly or indirectly. The teacher or laboratory technician in charge of Chemistry should **not** perform any of the experiments or give any information related to these instructions to the candidates.

**This paper consists of 2 printed pages.**

In addition to common laboratory apparatus each candidate to be provided with:

1. 10ml measuring cylinder
2. Boiling tube
3. $-10^{0}C to 100^{0}C$ thermometer
4. Accurately measured 4.5g of solid A(oxalic acid)
5. 20cm³ of 0.6M acidified KMnO4 solution
6. 100ml beaker
7. Heat source/water bath
8. Means of timing (stop watch/stop clock)
9. About 2g of potassium iodine (solid **D**)
10. About 2g of oxalic acid (C2H2O4.2H2O) solid **J**

**Access to:**

1. Distilled water in a wash bottle
2. 2M Sodium Hydroxide Solution
3. 0.5M Barium Chloride Solution
4. 0.5M Lead (II) Nitrate Solution
5. Heat source (Bunsen Burner Flame)
6. Glass rod
7. Bromine water (prepared by dissolving 1cm³ of liquid Bromine in 100cm³ of distilled water)
8. Metallic Spatula
9. 0.5M Sodium Hydrogen Carbonate solution
10. Acidified potassium manganate VII

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