**233/3**

**CHEMISTRY**

**PAPER 3**

**PRACTICAL**

**021**

**Kenya Certificate of Secondary Education**

**CHEMISTRY**

**PAPER 3**

**OCT 2021**

**CONFIDENTIAL TO SCHOOLS**

The information contained in this paper is to enable the head of Institution and the teacher in charge of Chemistry to make adequate preparations for the Form 4 entrance examination. NO ONE ELSE should have access to this paper or acquire knowledge of its contents. The teacher in charge of Chemistry should NOT perform any of the experiments in the same room as the candidates 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 fittings found in a Chemistry Laboratory, each candidate will require the following:***

1. 1g solid **Y**
2. 1g solid **Z**
3. Metallic spatula
4. 6 test tubes in a rack
5. 2 boiling tubes
6. Test tube holder
7. Filter funnel
8. Filter paper (one)
9. Distilled water
10. Acidified potassium manganate (VII) + dropper
11. Acidified potassium dichromate (VI) + dropper.
12. About 1g of NaHCO3 (s)
13. pH chart
14. Universal indicator.
15. 2M NaOH (aq) + dropper
16. 2M NH3 (aq) + dropper.
17. Blue and red litmus papers.
18. Acidified hydrogen peroxide + dropper.
19. Measuring cylinder (10 mls ).
20. Acidified 2M Barium Nitrate + dropper
21. 2M Lead (II) nitrate + dropper.
22. Bunsen Burner.
23. 150cm3 of solution A.
24. 150cm3 of solution B
25. 50cm3 of solution C
26. 25.0cm3 pipette.
27. 50.0cm3 burette.
28. A clamp and stand.
29. 100ml measuring cylinder.
30. 3 conical flasks.
31. White tile.
32. Phenolphthalein indicator.
33. Methyl orange indicator.

**NOTE:**

* + Solution **A** is prepared by dissolving a mixture of **8g** sodium hydroxide and **10.6g** sodium carbonate in distilled water to make 1 litre solution.
  + Solution **B** is prepared by measuring **17.2**cm3 of concentrated hydrochloric acid ( specific gravity 1.18) to **500**cm3 of distilled water and then making it to one litre.
  + Solution **C** 0.1M barium chloride solution.
  + Solid **Y** – Hydrated ammonium iron (II) sulphate
  + Solid **Z** – Maleic acid

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