

**CONFIDENTIAL INSTRUCTIONS TO SCHOOLS**

- The information contained in this paper is to enable the head of school and teacher in charge of Chemistry to make adequate preparations for this year's chemistry mock 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 candidates either directly or indirectly.
- The chemistry teacher is NOT expected to perform the experiments
- The apparatus required by each candidate for the chemistry mock practical examination are set out on the next page. It is expected that the ordinary apparatus of a chemistry laboratory will be available.
- The chemistry teacher should note that it is his/her responsibility to ensure that each apparatus acquired, for this examination agrees with specifications on the next page.

***In addition to the apparatus and fitting in a chemistry laboratory each candidate will require the following.***

1. 4.5 g solid A in a boiling tube (weighed accurately)
2. About 150cm<sup>3</sup> solution B
3. about 150cm<sup>3</sup> solution C
4. 100ml measuring cylinder
5. Empty 250ml beaker (plastic or glass)
6. 2 labels
7. One burette
8. One pipette
9. Two conical flasks ( 250ml)
10. Pipette filler
11. A glass rod
12. Mean of timing
13. Filter funnel
14. Four filter papers
15. 250ml volumetric flask
16. 10ml measuring cylinder
17. Two boiling tube
18. Distilled water in a wash bottle
19. 1g solid D in a stoppered container
20. 1g solid L
21. One metallic spatula
22. Test tube holder
23. 1g sodium hydrogen carbonate in a stoppered container
24. Six empty clean test tubes

**Access to**

- Phenolphthalein indicator supplied with a dropper
- Bunsen burner
- Acidified potassium manganate (VII) supplied with a dropper
- 2M NaOH supplied with a dropper
- 2M aqueous ammonia supplied with a dropper
- Barium nitrate solution supplied with a dropper
- Dilute nitric (v) acid supplied with a dropper
- 0.1M sodium sulphate solution supplied with a dropper

**Notes.**

1. Solid **A** is oxalic acid.
2. Solution **B** is made by dissolving 12g of sodium hydroxide in about 600cm<sup>3</sup> distilled water and the solution made upto one litre.
3. Solution **C** is made by dissolving 10.74 cm<sup>3</sup> of concentrated hydrochloric acid (5g 1.18) in about 600cm<sup>3</sup> distilled water and the solution made up to one litre.
4. Solid **L** is malleic acid.
5. Solid **D** is a mixture of Zinc sulphate and Lead (II) carbonate in the ratio 1:1.
6. Acidified potassium manganate (VII) is made by adding 3.16g of solid KMnO<sub>4</sub> to 400 cm<sup>3</sup> of 2M H<sub>2</sub>SO<sub>4</sub> and diluting to one litre using distilled water.
7. Lead (II) Nitrate solution is made by dissolving 15g of Pb(NO<sub>3</sub>)<sub>2</sub> in about 500cm<sup>3</sup> distilled water and the solution made up to one litre.
8. Barium nitrate solution is made by dissolving 20g of Ba (NO<sub>3</sub>)<sub>2</sub> in about 500cm<sup>3</sup> of distilled water and the solution made upto one litre.
9. Dilute nitric (v) acid in about 600cm<sup>3</sup> distilled water and the solution made up to one litre.

