

**4MCK JOINT EXAMINATION  
FORM 4 EXAMS, JULY 2016  
CHEMISTRY  
Paper 3 (Practical)**

## **CONFIDENTIAL**

### **INSTRUCTIONS TO SCHOOLS**

These instructions are to enable the Head teacher of the school and subject Teacher of Chemistry 233/3 to make adequate preparation for this year's **Form 4 Joint Evaluation** Test. **NO ONE ELSE** should get access to the information herein.

In addition to usual provisions and fitting in the science laboratory each candidate is expected to have the following

1. Solution P - 90cm<sup>3</sup>
2. Solution Q - 100cm<sup>3</sup>
3. Solution R - 100cm<sup>3</sup>
4. Burette
5. Pipette
6. Stopwatch
7. Thermometer
8. A boiling tube
9. Six test tubes
10. Measuring cylinder – 25ml or 50 ml
11. Two conical flasks
12. Source of heat
13. Distilled water in a wash bottle
14. Solid B – about one gram
15. Solid L – about one gram
16. Litmus paper (red and blue)
17. About 1 gram sodium hydrogen carbonate
18. Test tube holder

Access to:

1. 2M Sodium hydroxide
2. 2M Ammonia solution
3. Barium Nitrate solution
4. 2M Sulphuric acid
5. Acidified potassium manganate (VII)
6. Hot water bath

Each should be supplied with a dropper pipette

NB:

1. Solution P is 0.02 M potassium manganate (VII) which is acidified
2. Solution R – is 0.05 molar (NH<sub>4</sub>)<sub>2</sub> SO<sub>4</sub>.FeSO<sub>4</sub>.6H<sub>2</sub>O which is acidified.
3. Solution Q – is 0.05 M Oxalic acid/ acidified Sodium oxalate can also be used.

- Solution P is prepared by weighing 3.2g of KMnO<sub>4</sub>. Dissolve in 600 of 1 M H<sub>2</sub>SO<sub>4</sub> and make to litre.
- Solution Q is made by weighing accurately 6.3g of Oxalic acid. Dissolve in water and make to 1 litre.
- Solid B – Zinc sulphate
- Solid L – Maleic acid or any suitable unsaturated organic acid.

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