

KITUI COUNTY MOCK

233/3  
CHEMISTRY  
PAPER 3  
(PRACTICAL)  
JULY, 2017

## END OF TERM II FORM FOUR EXAMINATION, 2017

Kenya Certificate of Secondary Education (K.C.S.E)

233/3  
CHEMISTRY  
PAPER 3  
(PRACTICAL)

### **CONFIDENTIAL**

#### **INSTRUCTIONS TO ALL SCHOOLS**

1. The information contained in this paper is to enable the head of school and the teacher in charge of **Chemistry** to make adequate preparations for this **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 candidates either directly or indirectly.
2. The **Chemistry teacher** should note that it is his / her responsibility to ensure that each apparatus acquired for this examination agrees with the specifications given.
3. 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 give any other information related to the experiments to the candidates. Doing so will constitute an examination irregularity which is punishable.
4. The question paper will not be opened in advance.

**In addition to the fittings and apparatus found in a chemistry laboratory, each candidate will require.**

1. About  $120\text{cm}^3$  of solution A
2. About  $120\text{cm}^3$  of solution B
3. About  $100\text{cm}^3$  of solution C
4. One pipette 25.0ml
5. One pipette filler
6. One volumetric flask 250ml
7. One burette 0 – 50ml
8. Two conical flasks
9. 6 clean dry test-tubes
10. Test-tube rack
11. One thermometer –  $10^\circ\text{C}$  –  $110^\circ\text{C}$
12. Two boiling tubes
13. About 0.5g of solid Q in a stoppered container
14. About 0.5g of solid Y in a stoppered container
15. One 10ml measuring cylinder
16. One 100 ml beaker
17. About 500ml of distilled water in a wash bottle
18. One metallic spatula
19. 1g of sodium hydrogen carbonate (solid)
20. One label

**Access to:**

1. Methyl orange indicator supplied with a dropper.
2. Bunsen burner.
3. 2M aqueous ammonia
4. 2M sodium hydroxide supplied with a dropper.
5. 0.5M barium nitrate solution.
6. 0.5M lead (II) nitrate.
7. 2M nitric (V) acid.
8. Acidified potassium manganate (VII) solution supplied with a dropper.

**Preparations:**

1. Solution A is prepared by dissolving  $88\text{cm}^3$  of  $1.18\text{g/cm}^3$  (35%) concentrated hydrochloric acid in about  $600\text{cm}^3$  of distilled water and diluting to one litre of solution.
2. Solution B is prepared by dissolving 8.0g sodium carbonate in about  $500\text{cm}^3$  of distilled water and diluting to one litre of solution.
3. Solution C is prepared by dissolving 60.0g of sodium hydroxide pellets in about  $700\text{cm}^3$  of distilled water and diluting to one litre of solution.
4. Acidified potassium manganate (VII) is prepared by dissolving 3.16g of solid potassium manganate (VII) in about  $600\text{cm}^3$  of 2M Sulphuric (VI) acid and adding distilled water to make 1litre.
5. Solid Q is aluminum chloride.
6. Solid Y is maleic acid.