



**TEACHER.CO.KE SERIES 29**

**233/3  
CHEMISTRY  
PAPER 3  
PRACTICAL  
JULY / AUGUST 2011**

**FORM IV MID YEAR ASSESSMENT TEST  
Kenya Certificate of Secondary Education  
CHEMISTRY  
PAPER 3**

**CONFIDENTIAL**

**INSTRUCTIONS TO SCHOOLS**

- The information contained in this paper is to enable the head of the school and the teacher in charge to Chemistry to make adequate preparations for the Mid-Year Continuous Assessment Test. 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 here in does not reach the candidates either directly or indirectly.
- 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 as examination irregularity which is punishable.

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

1. About 100cm<sup>3</sup> of solution A.
2. About 100cm<sup>3</sup> of solution B.
3. About 60cm<sup>3</sup> of solution D.
4. About 60cm<sup>3</sup> of solution E.
5. 2g of solid C ( weigh accurately).
6. About 1.0g of solid F.
7. One burette – 50.0 ml.
8. One pipette – 25 ml.
9. Three conical flasks.
10. One pipette filler.
11. About 500cm<sup>3</sup> of distilled water.
12. A 50ml measuring cylinder .
13. One thermometer – 10<sup>0</sup>C – 110<sup>0</sup>C.
14. Four clean test tubes in a rack.
15. One 100ml measuring cylinder.
16. A 10ml measuring cylinder.
17. One boiling tube.
18. Blue an red litmus papers.
19. One test tube holder.
20. Glass rod.
21. Piece of tissue paper

**ACCESS TO:**

1. Methyl orange indicator.
3. 2M hydrochloric acid.
3. 2M sodium hydroxide solution.
4. Means of heating.
5. A cidified potassium manganate (VII) solution.
6. Aqueous barium chloride solution.

**NOTES**

1. Solution A – 0.1M HCl made by dissolving 8.6cm<sup>3</sup> of conc. HCl (1.18cm<sup>3</sup>/g) in 1 litre of solution.
2. Solution B is made of 19.1 g l<sup>-1</sup> of disodium tetraborate decahydrate (Dissolve 19.1g in 600cm<sup>3</sup> of distilled water, warm to increase solubility )
3. Solid C is oxalic acid (H<sub>2</sub>C<sub>2</sub>O<sub>4</sub>.2H<sub>2</sub>O). It should be presented to students in a stoppered container.
4. Solution D is 0.5M solution of oxalic acid (63g/l )
5. Acidified potassium manganate (VII) is prepared by dissolving 3.16g of solid KMnO<sub>4</sub> in 500cm<sup>3</sup> of 2MH<sub>2</sub>SO<sub>4</sub> and diluting to one litre solution.
6. Solid F is a mixture of solid NH<sub>4</sub>NO<sub>3</sub> and Na<sub>2</sub>SO<sub>3</sub> (sodium sulphide) at a ratio of 1 : 1. Place the mixture in stoppered containers.

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