**MACHAKOS COUNTY KCSE TRIAL AND PRACTICE EXAM 2015**

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

**Chemistry 3**

Practical

**Time: 2 ¼ Hours**

**CONFIDENTIAL INSTRUCTIONS TO SCHOOLS**

The information contained in this paper is to enable the head of the school and the teacher in charge of Chemistry to make adequate preparations for this year’s 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. The teacher in charge of Chemistry should NOT perform any of the experiments in the same room as the candidates or 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.

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

1. 6.0g of solid P accurately weighed and supplied in a clean boiling tube.
2. About 60cm3of 2M sodium hydroxide solution Q.
3. About 40cm3of 2M solution W.
4. One pipette, 25.0ml.
5. One pipette filler.
6. One volumetric flask, 250ml.
7. Four labels.
8. About 500cm3 of distilled water.
9. One burette 50.0ml.
10. Three conical flasks.
11. One 10ml measuring cylinder.
12. One 100ml measuring cylinder.
13. Two boiling tubes.
14. One thermometer -100c to 110oc.
15. About 0.5g solid E supplied in a stoppered container.
16. Six dry clean test tubes.
17. About 0.5g of Solid F supplied in a stoppered container.
18. One blue and one red litmus paper.
19. One metallic spatula.
20. Two 100ml beaker.
21. About 1g of solid sodium hydrogen carbonate.
22. About 500cm3 of distilled water.
23. One spatula.

**ACCESS TO**

1. Source of heat.
2. 2M aqueous Ammonia supplied with a dropper.
3. 0.5M Lead (II) Nitrate solution supplied with a dropper.
4. 0.5M Barium Chloride solution supplied into a dropper
5. Bromine water supplied into a dropper.
6. Acidified Potassium Manganite (VII) supplied into a dropper.
7. Phenophythelin indicator supplied with a dropper.

**NOTES**

1. 2M Sodium Hydroxide solution Q is prepared by dissolving 80g of Sodium Hydroxide pellets in about 600cm3 of distilled water and diluting to 1 litre solution.
2. Acidified Potassium Manganate (VII) is prepared by dissolving 3.16g of solid Potassium Manganate (VII) in about 600cm3 of 2M Sulphuric (VI) acid and adding distilled water to make a litre of solution.
3. Bromine water isprepared by taking 10cm3 of liquid Bromine and dissolving it in 100cm3 of distilled water in a fume cupboard or open air. This must be freshly prepared and stored in a dark bottle.
4. 2M HCl is prepared by dissolving 172cm3 of concentrated Hydrochloric acid in distilled water and diluting to make one liter solution.
5. 2M aqueous Ammonia is prepared by dissolving 298cm3 of concentrated Ammonia in distilled water and diluting to one litre of solution.
6. 2M H2S04 acid is prepared by dissolving 55cm3 of concentrated Sulphuric (VI) acid in distilled water and diluting to make one litre solution.
7. Solid E is pure Aluminum (III) Chloride.
8. Solid F is pure Oxalic acid.