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**CHEMISTRY****PAPER 3****(PRACTICALS)****CONFIDENTIAL***Kenya Certificate of Secondary Education (K.C.S.E)***INSTRUCTIONS TO SCHOOLS**

The information 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.

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 results of the experiments available to the candidates or give any other information related to the experiments to the candidates. Teachers to perform experiments to complete tables I and II to provide readings for their centres to be enclosed with the candidates' scripts to central marking centre.

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

A.

1. One burette 0 – 50ml
2. One pipette 25.0ml and a pipette filler
3. Two dry conical flasks (250ml)
4. Six dry test-tubes
5. One blue and one red litmus paper
6. pH chart (Full range)
7. One test-tube holder
8. One metallic spatula
9. One boiling tube
10. About 500cm<sup>3</sup> of distilled water supplied in a wash bottle
11. One 250ml volumetric flask supplied with a stopper.
12. One 10ml measuring cylinder
13. One 50ml measuring cylinder
14. About 100cm<sup>3</sup> of solution A
15. About 150cm<sup>3</sup> of solution B
16. 100ml glass beaker
17. White piece of plain paper
18. Thermometer
19. Stop watch/stop clock
20. One sticker / label
21. About 0.5 of solid sodium hydrogen carbonate
22. About 0.5g of solid E
23. About 0.5g of solid F
24. About 100cm<sup>3</sup> of solution C

**B Access to:**

1. Universal indicator (Full range)
2. Phenolphthalein indicator
3. Bunsen burner, tripod stand and wire gauze
4. 2.0m sodium hydroxide solution supplied with a dropper
5. Acidified Potassium Manganate (VII) supplied with a dropper
6. 0.5m aqueous Lead (II) Nitrate solution supplied with a dropper
7. 2.0m Ammonia solution supplied with a dropper.

**Note:**

1. Solid E is Zinc chloride
2. Solid F is maleic acid
3. Solution A is prepared by dissolving 172cm<sup>3</sup> of Conc. Hydrochloric Acid (Density 1.18g/cm<sup>3</sup>) in 400cm<sup>3</sup> of distilled water and diluting with distilled water to one litre.
4. Solution B is prepared by dissolving 15.8g of sodium thiosulphate (Na<sub>2</sub>S<sub>2</sub>O<sub>3</sub>) in 600cm<sup>3</sup> of distilled water and diluting with distilled water to one litre.
5. Solution C is prepared by dissolving 4g of sodium hydroxide pellets in 600cm<sup>3</sup> of distilled and diluting with distilled water to one litre.
6. Acidified potassium manganate (VII) is prepared by dissolving 3.0g of potassium manganate (VII) in 400cm<sup>3</sup> of 2.0M H<sub>2</sub>SO<sub>4</sub> and diluting with distilled water to one litre.