TEACHER.CO.KE SERIES 19

233 / 3
CHEMISTRY
CONFIDENTIAL

CONFIDENTIAL TO ALL SCHOOLS FOR CHEMISTRY TEACHERS

INSTRUCTION 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 mock chemistry practical examination. **NO ONE ELSE** should have access to this paper or acquire knowledge of its contents. Great care should be taken to ensure that the information contained herein **DOES NOT** reach the candidates either directly or indirectly. The teacher in charge of chemistry should NOT perform any of the experiment in the same room as the candidates nor make the results of the experiment available to the candidates or give any other information related to the experiment to the candidates.

Requirements for candidates

Each candidate will require the following

- 3 conical flasks (250ml)
- A 25ml pipette
- A 50ml burette
- About 80cm^3 of solution A
- About 100cm^3 of solution B
- About 170cm^3 of solution C
- Phenolphthalein indicator supplied with a dropper
- Pipette filler
- A label
- 500cm^3 of distilled in wash bottle
- 10ml measuring cylinder
- 50ml measuring cylinder
- 100ml measuring cylinder
- One piece of about 7-8 cm of metal M
- 250ml glass beaker
- A thermometer (-10^{o}C-11^{o}C)
- Stop watch
- Retort stand
- 2 boiling tubes
- 30cm long piece of tissue paper
- About 2g of solid E
- About 0.5g of solid F
- 6 clean test-tubes
- Universal indicator + its pH chart
- Ethanol supplied with a dropper
- Clean dry metallic spatula
- A blade/a pair of scissors
- A ruler
- Retort stand
- Filter paper(Watchman No.1)-3pcs
- Wooden splint

Access to solutions:

- Concetrated sulphuric (Vi) acid in a dropper bottle

- acidified Potassium dichromate (VI) solution

- Acidified Potassium Manganate (VII) solution.

- 2M hydrochloric acid

- 0.1M Potassium Iodide solution

- 2M Ammonium hydroxide/Aqueous Ammonia

- 0.5M Sodium sulphate

- 0.2M Lead (II) nitrate

- 0.2M Barium nitrate

-Bunsen burner (Source of heat)

Preparations

(a) Solution A=1M HCl

Measure 86cm^3 of 1.18g/cm^3 of concentrated hydrochloric acid and dilute in 400cm^3 of distilled water then top up to 1000cm^3 with distilled water

Solution B

(b) Measure 6.3g of oxalic acid into a beaker, add 200cm^3 of distilled water to dissolve then top up the resultant solution to 1litre

(c) Solution C: 0.1M NaOH

Measure 4.0g of NaOH pellets and put it into 400cm^3 of distilled water, top up the resultant to 1000cm^3

(d) Acidified Potassium manganate (VII) solution

Measure 3.16g of $KMnO_4$ in 400cm^3 of 2M H_2SO_4 and top up to 1 litre of solution with distilled water

(e) Acidified Potassium dichromate (VI) solution

Measure 25g of $K_2Cr_2O_7$, put it into 400cm^3 of 2M H_2SO_4 hen top up to 1000cm^3 with distilled water

NB

Solid E-Measure 1g of Zinc carbonate and mix it with 1g of Aluminium chloride

Metal M-7.8cm of Magnesium ribbon

Solid F-Maleic acid

Liquid G-Absolute Ethanol