



TEACHER.CO.KE SERIES 9

233/3

CHEMISTRY

PAPER 3

PRACTICAL

CONFIDENTIAL

Each candidate should have the following:

1. 120cm³ solution A, 0.1M sodium hydroxide label solution A.
2. 120cm³ solution B, 0.2M hydrochloric acid label solution B
3. Exactly 2.0g solid C – calcium hydroxide label solid B
4. Phenolphthalein indicator.
5. Methyl orange indicator.
6. Distilled water 500cm³ in a wash bottle.
7. Solid Q- 1g mixture of barium chloride and calcium hydroxide in the ratio of 2 : 1.
8. Solid P – 2g hydrated ammonium iron (II) sulphate ($\text{FeSO}_4 (\text{NH}_4)_2 \text{SO}_4 \cdot 6\text{H}_2\text{O}$)
9. Red and blue litmus paper. 2 pieces each.
10. Filter paper – 2 pieces
11. Labels – 2 pieces

APPARATUS

100ml measuring cylinder.

10ml – measuring cylinder.

Burette (0 – 50ml) on a stand and clamp

Pipette and pipette filler.

Stop watch

1 boiling tube

Test-tubes on a rack – 6 pieces.

Test-tube holder

Spatula.

Filter funnel.

3 conical flasks.

ACCESS TO:

1. Bunsen burner (Source of heat)
2. 2M sodium hydroxide.
3. Aqueous ammonia 0.1M
4. 0.5M sodium sulphate
5. 2M nitric acid
6. Barium nitrate solution (0.1M)
7. 2M hydrochloric acid

PREPARATIONS

1. Solution A is prepared by dissolving 4.0g of sodium hydroxide in 600cm³ of distilled water and diluting it to one litre solution.
2. Solution B is prepared by dissolving 17.2cm³ of concentrated hydrochloric acid of density 1.19g/cm³ in 400cm³ of distilled water and diluting to one litre solution.
3. Solid C is 2.0 g calcium hydroxide.
4. Solid Q is 1g mixture of barium chloride and calcium hydroxide in the ratio 2 : 1.
5. Solid P is 2g hydrated ammonium iron (II) sulphate.
6. 2M sodium hydroxide is prepared by dissolving 80g of sodium hydroxide into 1 litre solution.

7. 0.1M aqueous ammonia is prepared by dissolving 5.6cm³ Analar grade Ammonia which contains 30 – 35% and make upto 1 litre mark.
8. 0.1M barium nitrate is prepared by dissolving 26.0g in water and making upto 1 litre
9. 2M dilute nitric acid is prepared by adding 128cm³ of con. Acid to water and make upto 1 litre.
10. 2M hydrochloric acid is prepared by adding 172cm³ of conc. Acid to water and make upto 1 litre
11. 0.5M sodium sulphate is prepared by dissolving 71.0g in water and make upto 1 litre.