

233/3

CHEMISTRY

PAPER 3

PRACTICAL

JULY/AUGUST 2016

GATUNDU SUB-COUNTY SECONDARY SCHOOL

JOINT EXAMINATION

CONFIDENTIAL

CHEMISTRY CONFIDENTIAL

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

1. About  $120\text{cm}^3$  of solution K
2. About  $150\text{cm}^3$  of solution N.
3. About  $90\text{cm}^3$  of solution B.
4. Solid D about 0.5g
5. About 1.0g of solid E.
6. About 0.2g of solid sodium hydrogen carbonate.
7. 100ml measuring cylinder.
8. Two 100ml beakers.
9. Plain paper.
10. Stop watch.
11. 10ml measuring cylinder.
12. 250ml volumetric cylinder.
13. About 500ml of distilled water.
14. One label.
15. One 0-50ml pipette.
16. One 25ml pipette.

17. One pipette filler.
18. Two 250ml conical flasks.
19. Phenolphthalein indicator.
20. 6 dry test tubes.
21. One boiling tube.
22. Two filter paper.
23. Filter funnel.
24. Metallic spatula.

Access to:-

1. Bunsen burner.
2. 2M sodium hydroxide solution supplied with a dropper.
3. 2M ammonia solution supplied with a dropper.
4. 2M sodium sulphate solution supplied with a dropper.
5. 2M Nitric (v) acid supplied with a dropper.
6. Acidified potassium dichromate (vi) solution.
7. Acidified potassium manganate (vii) solution.

#### PREPARATIONS.

1. Solution k is prepared by dissolving 20g of sodium thiosulphate in 700cm<sup>3</sup> of distilled water and diluting to 1 litre.
2. Solution B is prepared by dissolving 8g of sodium hydroxide in 800cm<sup>3</sup> of distilled water and diluting to one litre.
3. Acidified potassium manganate (vii) is prepared by dissolving 6.0g of potassium manganate (vii) in about 100cm<sup>3</sup> of 2M sulphuric (vi) acid, adding 800cm<sup>3</sup> of distilled water and diluting to one litre of solution.
4. Solid D is a mixture of ZnCO<sub>3</sub> and Al(NO<sub>3</sub>)<sub>3</sub> in the ratio 2 : 1
5. Solid E is about 0.5g maleic acid
6. Solution N is 2M HCl
7. SOLID E: about 0.5g of malleic acid.
8. Solution N: 2M Hydrochloric acid.