

233/3 Inst. Sc.  
CHEMISTRY  
Practical  
Paper 3  
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THE KENYA NATIONAL EXAMINATIONS COUNCIL  
Kenya Certificate of Secondary Education  
CHEMISTRY  
Paper 3  
PRACTICAL

#### INSTRUCTIONS TO SCHOOLS

*The information contained in this paper is to enable the head of the school and 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 nor 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.*

**This paper consists of 8 printed pages.**

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

1. about 150 cm<sup>3</sup> of solution A labelled solution A ✓
2. about 150 cm<sup>3</sup> of solution B labelled solution B ✓
3. about 80 cm<sup>3</sup> of solution C labelled solution C ✓
4. one pipette 25.0 ml
5. one pipette filler
6. one volumetric flask (250.0 ml)
7. four labels
8. about 500 cm<sup>3</sup> of distilled water
9. one burette 50.0 ml
10. three conical flasks
11. one 10 ml measuring cylinder
12. one 100ml measuring cylinder
13. two boiling tubes
14. one thermometer -10° C to 110° C
15. about 0.5 g of solid E supplied in a stoppered container
16. six clean dry test-tubes
17. about 0.1 g of solid F supplied in a stoppered container
18. about 0.5 g of solid G supplied in a stoppered container
19. pH chart 1-14; and universal indicator solution supplied with a dropper
20. one 100ml beaker
21. one **metallic** spatula
22. one clean dropper

Access to

1. Phenolphthalein indicator supplied with a dropper ✓
2. 2 M sulphuric (VI) acid supplied with a dropper ✓
3. 2 M sodium hydroxide supplied with a dropper ✓
4. 0.5 M potassium iodide supplied with a dropper ✓
5. Bromine water supplied with a dropper ✓
6. Acidified potassium manganate (VII) supplied with a dropper ✓
7. Bunsen burner. ✓